



Featured Article

China's Revised Patent Examination Guidelines for Artificial Intelligence: Key Changes and Practical Implications

The newly revised Patent Examination Guidelines officially came into force on January 1, 2026. Against the backdrop of vigorous development of emerging industries and new business forms centered on artificial intelligence (AI), this revision systematically adjusts and clarifies examination rules governing patent applications in the AI sector. Specifically, it establishes more definite and operable examination criteria covering ethical compliance, inventive step, sufficiency of disclosure and other key dimensions. Such revisions mark that China's patent examination regime for AI technologies has entered a refined and standardized new stage, imposing higher requirements on innovation entities and patent agency practices.

I. Ethical Compliance Examination

1.1 Overview of Amendments

This revision adds new examination rules concerning Article 5 Paragraph 1 of the *Patent Law* under Section 6.1.1 of Chapter

IX, Part II of the Guidelines. The provisions explicitly stipulate:

For invention patent applications containing algorithm features or business rule and method features, if data collection, label management, rule configuration, recommendation decision-making or other links involve content that violates laws, social morality or impairs public interests,

such applications shall not be granted patent rights pursuant to Article 5 Paragraph 1 of the Patent Law.

The core objective of this revision is to guide AI technologies toward "benevolent intelligence", ensuring all relevant patent application subject-matters comply with national laws, regulations and social ethical norms. The rules mandate that inventions involving artificial intelligence and big data must strictly abide by laws including the *Personal Information Protection Law*, and must not violate laws, contravene social morality or harm public interests.

1.2 Newly Added Examination Examples

Two illustrative examination cases are supplemented to elaborate the above amendments:

1. Case 1: Big Data-Based In-Store Mattress Sales Auxiliary System

The technical solution installs camera devices in shopping mall mattress zones to capture facial features of customers without their awareness, performs facial recognition to obtain customer identity information, and analyzes sleep preferences for targeted precision marketing.

Examination Conclusion: Deploying image acquisition and facial recognition for commercial precision marketing is not necessary for public security purposes. The application fails to prove that data

collection was conducted with separate consent from customers, which violates provisions of the *Personal Information Protection Law*. This invention falls under subject-matters "contrary to laws" as specified in Article 5 Paragraph 1 of the Patent Law and shall be denied patent protection.

2. Case 2: Construction Method for Emergency Decision-Making Model of Autonomous Vehicles

The core algorithm of the scheme prioritizes protected objects based on pedestrians' gender and age when collision avoidance is impossible in emergency scenarios, e.g., granting priority protection to women and children.

Examination Conclusion: Such decision-making logic runs counter to the fundamental social value of respecting equal human life. By embedding gender and age discrimination into algorithmic models, it undermines fairness and harmony among social groups, qualifying as subject-matters "contrary to social morality" that are ineligible for patent rights.

1.3 In-Depth Interpretation and Practical Response Strategies

In-Depth Interpretation

This revision introduces formal ethical compliance examination rules for the first time, transforming patent examination into a composite review framework

covering technology, ethics and legal compliance. Under this framework, ethical legitimacy and legal compliance constitute preconditions for patent grant, subject to sequential review prior to traditional examination criteria such as novelty and inventive step.

This means any technical solution involving illegal or unethical practices in data collection, algorithmic decision-making or other links will trigger a one-strike veto and be disqualified from patent authorization.

Practical Strategies for Patent Practice

1. Conduct legal and ethical risk assessment of technical solutions at the patent proposal stage. For data-driven solutions, verify legitimate data sources. For algorithms implementing decision-making, recommendation or scoring functions, review whether discriminatory logic targeting sensitive attributes (age, gender, geographic origin, health status, etc.) or mechanisms enabling unfair treatment are embedded or latent in the scheme.
2. Incorporate a dedicated compliance statement in the specification during drafting patent applications, as exemplified below:

It is hereby clarified that all acquisition, processing and analysis of user data disclosed herein are performed in full compliance with applicable laws and regulations (including the Personal

Information Protection Law), upon obtaining explicit authorization from relevant users. All data undergoes anonymization or de-identification processing without illegal collection or abuse of personal privacy.

For algorithmic decision-making mechanisms, arguments on fairness design may be supplemented:

The decision-making rules of the present model are optimized for overall performance without embedding inherent biases based on demographic characteristics. All human lives are assigned equal weight in the model's decision logic.

II. Assessment of Inventive Step

2.1 Overview of Amendments

Two supplementary examination examples are added to further clarify inventive step assessment standards for AI patent applications. These examples resolve ambiguities in examination practice arising from differences in application scenarios and processing objects, delineating clear boundaries for judging inventive step of AI-related inventions.

2.2 Newly Added Examination Examples

1. Case 1: Method for Counting Vessel Quantities via Image Recognition

The solution adopts conventional deep learning models to train and identify vessel quantities in images. The only distinction from Comparative Document 1 lies in the reference document's recognition target being tree fruits.

Examination Ruling: Despite disparities in appearance, volume and environmental context between vessels and fruits, the application fails to adjust or improve deep learning architectures, model construction or training workflows tailored to the target recognition object. A person skilled in the art would recognize that information labeling, dataset partitioning, model training and other procedures for quantity recognition of different targets bear no essential differences. Accordingly, the claimed technical solution lacks inventive step.

2. Case 2: Construction Method of Neural Network Model for Scrap Steel Grade Classification

The scheme trains a convolutional neural network (CNN) to generate a classification model outputting scrap steel grades, improving classification efficiency and accuracy. Comparative Document 1 extracts features from pre-classified scrap steel images for model training to identify scrap steel types. While both solutions target scrap steel scenarios, they address distinct technical problems.

Examination Ruling: To identify scrap steel shape and thickness, the claimed invention

extracts color, edge and texture features, accompanied by targeted adjustments to convolutional and pooling layer channel counts and hierarchical configurations. No corresponding technical motivation is disclosed in prior art, rendering the claimed technical solution possessed of inventive step.

2.3 In-Depth Interpretation and Practical Response Strategies

In-Depth Interpretation

The supplemented examples delineate the core benchmark for assessing inventive step of AI inventions: the examination focus shifts from novelty of application scenarios to substantial technical contributions. Mere transplantation of known algorithms to new scenarios no longer suffices to establish inventive merit. Conversely, even within adjacent technical fields, inventive step will be acknowledged if the application discloses substantial, targeted modifications to model architectures, training mechanisms or data processing workflows addressing specific technical challenges, accompanied by verifiable technical effects.

This trend substantially raises the technical threshold for AI patent protection, incentivizing innovators to pursue in-depth algorithmic improvements rather than superficial innovation limited to scenario migration.

Practical Strategies for Patent Practice

1. Avoid superficial descriptions of application domains in patent drafting. Instead, elaborate inherent characteristics of the target field, distinguish it from technical fields disclosed in prior art, and articulate unique technical challenges arising from such disparities. Specifically, identify technical obstacles unsolvable by a person skilled in the art when directly applying existing algorithms or models to the target scenario, laying a foundational basis for arguing inventive step.
 2. Center inventive step arguments on substantial, non-obvious technical contributions to algorithms or models. The specification shall comprehensively disclose all targeted technical improvements adapted to the target field, including but not limited to:
 - Specialized enhancement and filtering algorithms for data preprocessing;
 - Differentiated input data formats compared with prior art;
 - Modifications to network modules, introduction of novel components and technical considerations for hyperparameter selection in model architectures;
 - Specialized loss functions, transfer learning, contrastive learning or other customized training paradigms.
- Detailed descriptions of each module's data processing logic, specific functions and beneficial technical effects (especially modified, improved or newly added components) shall be incorporated to highlight distinguishing features over prior art.
3. Preempt potential office action objections asserting "a person skilled in the art would be motivated to migrate existing models to new fields" through elaborate disclosure in the specification. Supporting arguments may include:
 - Technical barriers separating the target field from the reference art field eliminating reasonable migration motivation;
 - Technical impediments arising from direct deployment of existing models in the target scenario;
 - Breakthrough improvements departing from conventional cognition prevailing in the field to demonstrate non-obviousness.
 4. Substantiate non-obviousness via quantifiable technical effects: include comparative experimental data and performance metrics (accuracy improvement, computational overhead reduction, robustness enhancement, etc.) to numerically demonstrate problem-solving capabilities and performance gains, providing compelling evidence that prior art fails

to disclose corresponding technical motivations.

III. Sufficiency of Disclosure

3.1 Overview of Amendments

New provisions are added under Section 6.3.1 "Specification Drafting" of Chapter IX, Part II of the Guidelines, stating:

Where an invention relates to the construction or training of an artificial intelligence model, the specification shall generally clearly record essential modules, hierarchical structures or connection relationships of the model, as well as specific training procedures and necessary parameters. Where an artificial intelligence model or algorithm is applied to a specific field or scenario, the specification shall generally clearly document how the model or algorithm integrates with the target field/scenario, and how input and output data of the algorithm or model are configured to reflect inherent logical correlations, such that a person skilled in the art can implement the claimed technical solution based on the disclosure.

Targeting two common types of AI patent applications, the supplementary provisions establish explicit drafting standards for satisfying sufficiency of disclosure requirements, addressing the inherent "black-box" characteristic of AI algorithms and models whose internal structures and

operating mechanisms cannot be directly observed.

3.2 Newly Added Examination Examples

Two illustrative cases are supplemented to interpret the revised provisions:

1. Case 1: Method for Generating Human Facial Features

The scheme embeds a spatial transformer network within a first convolutional neural network to locate feature regions of facial images. The specification omits disclosure of the specific insertion position of the spatial transformer network inside the CNN.

Examination Ruling: A person skilled in the art recognizes that a spatial transformer network may be inserted at any position within the model without impairing its function of identifying image feature regions. The technical solution is deemed sufficiently disclosed, and omission of positional information does not constitute insufficient disclosure.

2. Case 2: Biological Information-Based Malignant Tumor Prediction Method

The solution inputs routine blood test indicators, blood biochemical markers and facial image features into a proprietary "enhanced malignant tumor screening model" to output disease risk prediction values. However, the specification fails to disclose stable causal correlations between specific blood biomarkers, discrete facial

features and malignant tumor diagnostic accuracy, which cannot be reasonably inferred by a person skilled in the art.

Examination Ruling: The scheme merely aggregates miscellaneous data into an undisclosed black-box model without revealing internal technical logic linking input and output variables. A person skilled in the art cannot implement the solution to resolve the targeted technical problem based on the specification, resulting in a finding of insufficient disclosure.

3.3 In-Depth Interpretation and Practical Response Strategies

In-Depth Interpretation

The supplementary cases clarify the core benchmark for assessing sufficiency of disclosure in AI patents: applicants bear heightened disclosure obligations for core technical details of claimed inventions. Black-box drafting practices that merely state "models trained via massive datasets yield target results" no longer satisfy statutory disclosure requirements. This trend extends sufficiency of disclosure obligations beyond model structural disclosure to the logical correlation between input data and technical tasks, ensuring authenticity and reproducibility of claimed technical solutions.

Practical Strategies for Patent Practice

1. Identify inventive contributions of the technical solution at the drafting stage, including non-public model

architectures, hierarchical connections, training workflows, parameter configurations and customized data processing rules that advance prior art. Comprehensive, clear disclosure of implementation modes, design rationales and technical functions for all core inventive elements is mandatory to enable reproducibility by a person skilled in the art. Description of well-known conventional technical means may be simplified, provided minimum sufficiency of disclosure standards are met. This mandates clear identification of invention points by patent attorneys.

2. For AI models deployed in specialized fields, avoid simplistic flowcharts merely reciting "input Feature A/B/C into the model to obtain Output D". Three tiers of disclosure must be elaborated:

- (1) Technical logic justifying selection of input features, i.e., causal links between selected features and the targeted technical problem;
- (2) Data processing logic, specific functions and operational mechanisms of each network module;
- (3) Correlation between output results and ultimate technical effects, verifying stable, reproducible mapping between input and output variables.

Supplementary disclosure may include technical means for feature acquisition and

preprocessing workflows customized for model adaptation.

3. For non-inventive well-known details that a person skilled in the art may determine via common general knowledge or routine design alternatives, adopt open-ended phrasing such as "optionally", "for instance" or "configurable by a person skilled in the art as required", or explicitly state that "the specific position of the module does not affect its functional performance and falls within routine design choices of the field". Such drafting balances statutory sufficiency of disclosure against unduly narrowing the scope of protection by introducing unnecessary technical features into claims.

IV. Conclusion

The revised *Patent Examination Guidelines* present both challenges and opportunities for innovation entities and the patent agency industry.

Challenges arise from the obsolescence of conventional drafting practices including superficial scenario migration and vague disclosure of internal model architectures, demanding higher professional standards for drafting quality and claim layout strategies.

Opportunities emerge as the new rules deliver predictable, equitable authorization prospects for high-quality innovations featuring in-depth research on underlying algorithms, optimized model architectures, solutions to complex engineering challenges and full ethical and legal compliance.

Future patent application workflows shall integrate legal and ethical compliance assessments from the initial technical conception stage. Patent specifications shall integrate technical descriptions, compliance statements and quantitative effect demonstrations to establish robust proprietary rights protection for innovative achievements through rigorous, transparent and technically in-depth disclosure.

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