

Introduction to Computer Implemented Inventions in China

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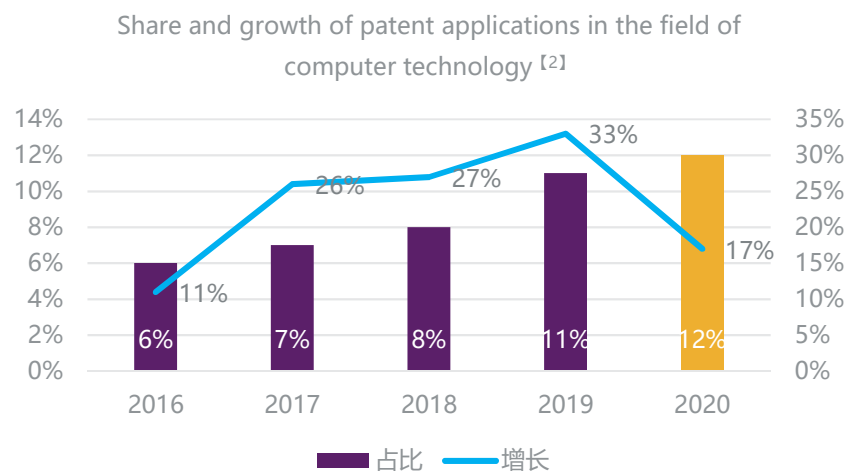
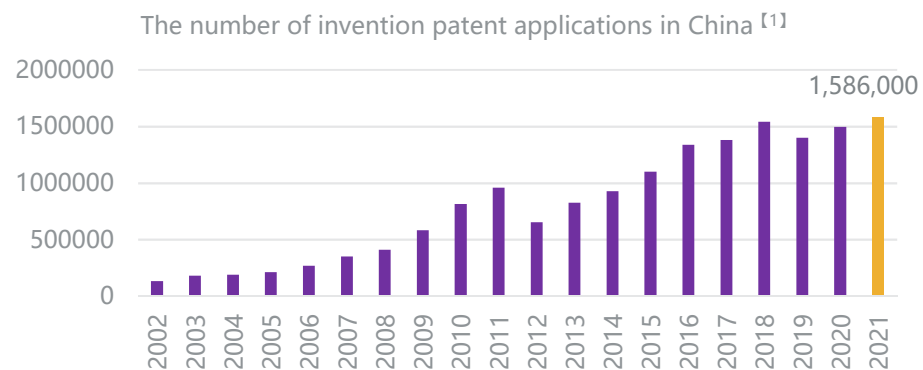
Dentons Shanghai Office, IP Department

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'Innovation is the first driving force leading development, and protecting Intellectual Property rights is protecting innovation.'

Basic Situation-CII



【1】 Data source: National Bureau of Statistics of China , <http://www.stats.gov.cn/>

【2】 Data source: IP5 Statistics Report, <https://www.fiveipoffices.org/statistics/statisticsreports>

Patent Law of the People's Republic of China (Revised in 2020)

- **Article 2.** For the purposes of this Law, "invention-creations" mean inventions, utility models and designs.
- "Invention" means any new technical solution proposed for a product, a process or the improvement thereof.
- "Utility model" means any new technical solution proposed for the shape, the structure, or their combination, of a product, which is fit for practical use.
- "Design" means, with respect to an overall or partial product, any new design of the shape, the pattern, or their combination, or the combination of the colour with shape or pattern, which is rich in an aesthetic appeal and is fit for industrial application.

A technical solution is a collection of technical means that take advantage of **the laws of nature** for the **technical problem** to be solved.

("3T" : technical problem, technical means, technical effects)

Patent Law of the People's Republic of China (Revised in 2020)

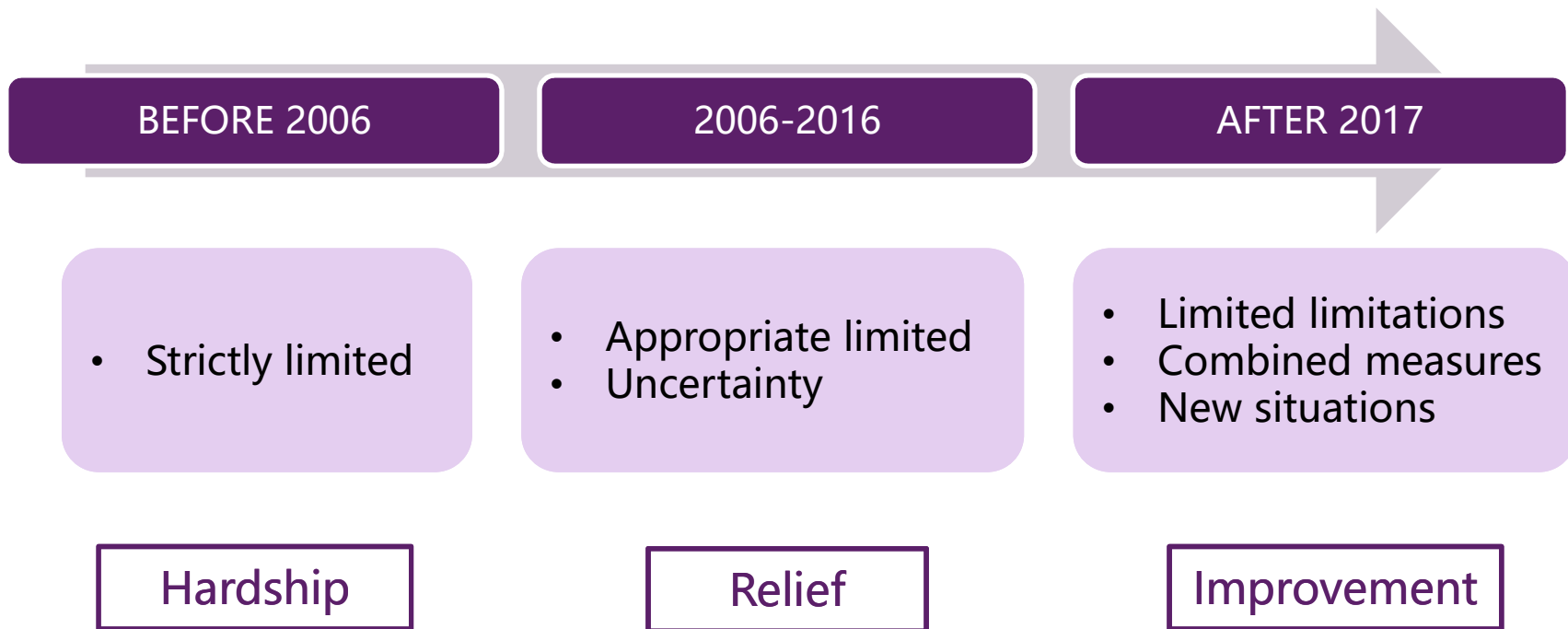
Article 25. No patent right shall be granted for any of the following:

- (1) scientific discoveries;
- (2) **rules and methods for intellectual activities;**
- (3) methods for the diagnosis or treatment of diseases;
- (4) animal and plant varieties;
- (5) nuclear transformation methods and substances obtained by means of nuclear transformation;
- (6) designs of two-dimensional printing goods, made of the pattern, the color or the combination of the two, which serve mainly as indicators.

The patent right may, in accordance with the provisions of this Law, be granted for the production methods of the products specified in Subparagraph (4) of the preceding paragraph.

Intellectual activity, which is the movement of human thinking, originates from human thinking and produces abstract results through reasoning, analysis and judgment, or must be mediated by the movement of human thinking, which indirectly acts on nature to produce results.

Trend of Examining Practice



Comparison - the Patent Examination Guidelines

- Claim writing requirements.
- If written as a method claim, the functions performed by the computer program and how they are accomplished should be described in detail in accordance with the steps of the method process.

2006 version

- Claim writing requirements.
- If written as a method claim, the functions performed by the computer program and how they are accomplished should be described in detail in accordance with the steps of the method process.

2017 version

Comparison - the Patent Examination Guidelines

- If written as a device claim, it should specifically describe the components of the device and the relationship between the components, and describe in detail which components perform the various functions of the computer program and how these functions are performed.

2006 version

- If written as a device claim, it should specifically describe the components of the device and the relationship between the components, which may include not only hardware, but also programs.

2017 version

Comparison - the Patent Examination Guidelines

•the components of such device claim correspond exactly to the steps of that computer program flow or the steps of that method claim The components of such a device claim shall be understood as **functional modules** necessary to implement the steps of the program process or the steps of the method, and a device claim defined by such a set of **functional modules** shall be understood as a **functional modular** architecture that implements the solution primarily through the computer program documented in the specification, and not as a physical device that implements the solution primarily by means of hardware. physical device.

2006 version

•the components of such device claim correspond exactly to the steps of that computer program flow or the steps of that method claim The components of such a device claim shall be understood as **program** modules necessary to implement the steps of the program process or the steps of the method, and a device claim defined by such a set of **program** modules shall be understood as a **program** | modular architecture that implements the solution primarily through the computer program documented in the specification, and not as a physical device that implements the solution primarily by means of hardware. physical device.

2017 version

AFTER 2017

- (1) clarifies that "computer program itself" is not equal to "invention involving a computer program", and allows the expression of the claim "media + computer program process".
- (2) clarified that if an invention involving a computer program is applied for as a product claim, its components may include **not only hardware, but also programs**; (more straightforward formulation, replacing functional modules with program modules)
- (3) Deleted Case 9, which no longer has guidance for current examination practice.
- (4) added: **claims involving business models that contain both the content of business rules and methods and technical features** should not be excluded from patentability under Article 25 of the Patent Law.
- (5) **Only the computer program** itself is still **NOT** directly eligible for patent protection in China.

Amendments in 2019

- Relevant regulations on the examination of patent applications for inventions that include **algorithm features** or **business rules and method features**
- Invention patent applications involving **artificial intelligence, "Internet +", big data, and blockchain** generally include rules and methodological features of intellectual activities such as algorithms or business rules and methods. This section aims to, in accordance with the [Patent Law](#) and its implementation rules, The specificity of the examination of such applications shall be stipulated.

Amendments in 2019

- Article 25, Paragraph 1, Item (2) of the [Patent Law](#)
- If the claim involves **an abstract algorithm** or **pure business rules and methods**, and **does not contain any technical features**.
- For example, a mathematical model establishment method based on an abstract algorithm and does not contain any technical features.
- Another example is a method of rebates based on the user's consumption amount. The features contained in the method are all business rules and method features related to the rebate rules, and do not contain any technical features.
- If a claim **contains technical features in addition to algorithm features or business rules and method features**, and the claim as a whole is not a rule and method of intellectual activity.

Amendments in 2019

- Article 2, Paragraph 2 of the [Patent Law](#)
- Consider all the features recorded in the claim as a whole. If the claim records that a technical means utilizing the laws of nature is adopted for the technical problem to be solved, and thus a technical effect conforming to the laws of nature is obtained, the solution is the technical solution.
- For example, if the steps involved in the algorithm in the claim are closely related to the technical problem to be solved, such as the data processed by the algorithm is data with definite technical meaning in the technical field, the execution of the algorithm can directly reflect the use of natural laws to solve a certain problem.

Amendments in 2019

- A Method of Establishing Mathematical Model
- A training method for convolutional neural network model
- A method of using shared bicycles
- A communication method and device between blockchain nodes
- A method of consumption rebate
- An Analysis Method of Economic Prosperity Index Based on Electricity Consumption Characteristics
- A detection method for humanoid robot fall state based on multi-sensor information
- Multi-robot path planning system based on cooperative co-evolution and multi-population genetic algorithm
- A logistics distribution method
- A Visualization Method for Dynamic Opinion Evolution

Case 1: CN105809487B - Decision 2019 - Adopted

- Claim 1. A method for placing advertisements based on advertising elements, characterized in that it comprises the steps of
- step one: combining multiple ad elements among themselves to obtain a plurality of different ad creatives, wherein each ad element includes a plurality of ad images
- Step 2: placing the plurality of ad creatives separately and obtaining the click-through rates of all the ad creatives separately within a predetermined time; and
- Step 3: obtaining the total click-through rate corresponding to each ad element and the click-through rate of each ad image in any one of the ad elements according to the click-through rates of all the ad creatives
- Step 4: based on the click-through rate of each ad image in any one ad element and the total click-through rate of that ad element, calculate the exposure of each ad image in that ad element respectively in combination with the preset total exposure of the placement; and
- Step 5: Ad placement for all ad creatives based on the exposure of each ad image in the ad element."

Case 1: CN105809487B - Decision 2019 - Adopted

The collegial group believes that

In Claim 1, different combination methods between advertising elements correspond to different advertising ideas, and different advertising ideas are all placed, thus obtaining the click-through rate of each advertising element in the advertising ideas formed by multiple different combination methods as well as the click-through rate of advertising images, and the above means are bound by the combination relationship between advertising images, advertising elements and advertising ideas, and can more accurately reflect the user's interaction with The above means are subject to the relationship between the combination of advertising images, advertising elements and advertising ideas, and can more accurately reflect the interaction of users with the advertising elements and advertising images that make up a plurality of different advertising ideas, following not the socio-economic laws of pre-determined regions and pre-determined times, but **the technical means that follow the laws of nature by taking advantage of the differences in human reactions to different combinations of elements.**

Referring to the previous review, the solution of claim 1 solves the problem of how to obtain the exposure of an advertising image from the element level to determine the effectiveness of an advertising image when a combination of multiple advertising elements including an advertising image is placed as a number of different creatives, and the above problem **is a technical problem.**

Case 2: CN101075329A - Decision 2011 - Not adopted

- Claim 1. a method for placing advertising information, characterized in that a signature file database is created in advance in an advertising management server, said signature file database being used to save advertising information to be displayed in a user's signature file; when the user side publishes user-edited information, the method comprises the steps of
 - a. the user side transmits the information that the user needs to publish to the web as user-edited information to the advertisement management server
 - b. the advertisement management server determines the key information of the user-edited information according to the page analysis method, and then queries the signature file database according to the key information to obtain the advertisement information matching said key information
 - c. The advertisement management server returns the obtained advertisement information to the user side to be displayed in the user signature file.

Case 2: CN101075329A - Decision 2011 - Not adopted

The collegial group considered that.

The correspondence between keywords and information categories is pre-set in this solution by manual means, and such **artificially set** correspondence does not actually make use of the laws of nature, and therefore **does not belong to technical means**.

In addition, according to the description of the specific implementation of this application, the user terminal and the server are **well-known devices** in the computer field, and the analysis, search, matching, display and transmission of information between the user terminal and the server are also **well-known techniques** in computer network technology.

The proposal only limits the information to advertising information on the basis of these public knowledge technologies, while advertising information itself is a kind of information artificially set for commercial activities, and its purpose is to attract the attention of users, so advertising information does not conform to the laws of nature.

Therefore, the solution is only a combination of artificially set advertising information that **does not conform to the laws of nature** on the basis of the well-known technology, and does not use the technical means that conform to the laws of nature.

The effect that can be achieved by this application is only the display of advertising information to attract the attention of users, which is a commercial effect and **does not achieve the technical effect**.

Application Strategies and Recommendations

- (i) Primary concern: whether the CII application solution utilizes the laws of nature and is a technical solution.
- (ii) It is best to state in the CII patent application that it solves a technical problem and has technical effects.
- (iii) Do not apply for a simple business strategy or commercial solution (such as a simple advertising solution) even if it includes a hardware unit module.
- (iv) Need to pay attention to: solutions formed on the basis of public knowledge technology have a higher risk of being considered not as technical solutions, and conversely have a higher probability of being considered as technical solutions.

THANKS



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