

# Establishment of University Intellectual Property Management System Based on Innovation-driven Development Strategy

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**Keywords:** innovation-driven development; colleges and universities; intellectual property management system

**Abstract:** As the output highland of intellectual property rights, colleges and universities are an important innovation source and radiation source of innovation driven development strategy. Colleges and universities should actively adapt to the new national strategic layout and planning deployment, objectively analyze the new characteristics of intellectual property rights in Colleges and Universities under the background of innovation driven strategy, carefully summarize the current situation and existing problems of intellectual property management, protection and transformation in Colleges and universities, learn from the advanced management experience and practices of western countries, establish and improve the intellectual property management system in Colleges and universities, and constantly optimize intellectual property services, Lead the intellectual property culture and make the intellectual property of colleges and universities play an important supporting and ensuring role in the national innovation driven development strategy.

## 1. Introduction

The effective management of intellectual property rights involves not only the rights and interests of schools, teachers and students, but also the benefits and efficiency of the transformation of scientific and technological projects and scientific research achievements, as well as the guidance and management of intellectual property rights, so as to support and enhance the independent innovation ability of Colleges and universities and even the whole country. Therefore, while applying for and striving for more national legislative and administrative protection, colleges and universities should also take a series of practical measures according to the national strategic layout and planning deployment, further build the intellectual property management system of colleges and universities, optimize the intellectual property environment of colleges and universities, train intellectual property talents and cultivate intellectual property culture on the basis of traditional management mode, Constructing and perfecting the internal intellectual property management system of colleges and universities to meet the needs of the development of the new era.

## 2. New Characteristics of Intellectual Property Rights in Colleges and Universities

Premier Li Keqiang put forward the concept of “comprehensive innovation space”, planned the national mass entrepreneurship and innovation strategy, and took the national basic strategic resources intellectual property rights as the core, deeply implemented the national intellectual property strategy, built a powerful country with intellectual property rights, promoted the development and application of science and technology, and integrated innovation and entrepreneurship resources are important links to realize the innovation driven development strategy(Ding Jianning,2020). In this context, intellectual property rights in Colleges and universities show new characteristics, new changes and new connotations. See Table 1 below for details:

Table 1 New features and contents of intellectual property.

| New features of intellectual property | Content   |
|---------------------------------------|---|
| Subject pluralism                     | industry university research co construction, government school cooperation and enterprise school Co Construction |
| Rich achievements                     | the number of intellectual property invention patent applications exceeds 1 million                               |
| Connotation expansion                 | patent right, trademark right, technology / trade secret, etc   |
| Outreach closely                      | interdisciplinary, interdisciplinary and interdisciplinary  |

### 2.1. Diversification of intellectual property subjects

At present, the forms of industry university research joint construction, government school cooperation and enterprise school joint construction are becoming more and more diversified and closely linked. Collaborative innovation and think tank construction need to break the existing administrative and border barriers and form cross domain teamwork and collaborative innovation. As a result, the exchange of government personnel, technical personnel and school staff has been expanded from the training of government personnel, technical personnel and school staff.

### 2.2. Rich achievements in intellectual property rights

According to the data released by the State Intellectual Property Office, the number of intellectual property invention patent applications in China exceeded 1 million, with a year-on-year increase of 18.5%, ranking first in the world for five consecutive years. China is undoubtedly a big intellectual property country. In the context of innovation driven development strategy, the government has further increased policy support and financial investment. Colleges and universities are at the forefront of talent training and scientific research. College teachers and students show their skills on comprehensive platforms such as collaborative innovation center, think tank construction and innovation and entrepreneurship club. In addition, the rapid development of science and technology in the Internet information age will further shorten the renewal cycle of intellectual property rights in Colleges and universities, and the quantity and quality will be greatly increased and improved.

### 2.3. Expanding the connotation of intellectual property

In the context of innovation driven development, the scope and content of intellectual property rights in Colleges and universities are also different from the original concept, adding new elements of innovation driven development. Generally speaking, the intellectual property rights of colleges and universities mainly include: patent right and trademark right. Technical secrets and trade secrets; Copyright and its neighboring rights; School signs and service signs of colleges and universities; Other intellectual property rights enjoyed or held by institutions of higher learning in accordance with national laws, regulations or contracts. However, with the rapid development of economy, society and science and technology, with the continuous enrichment of innovation achievements, the continuous expansion of Innovation participation and the continuous improvement of innovation perspective, the intellectual property rights of colleges and universities also include: the contents of lectures held by colleges and universities, the ideological discussion at seminars, the literature compilation prepared by internal scientific research institutions of colleges and universities, the achievements after the integration of digital resources of colleges and universities Research project plan of university entrepreneurship team, relevant materials and survey data released by university scientific research team, etc.

### 2.4. Closing intellectual property outreach

In the new situation, knowledge, technology, products, industries and economy will develop more conveniently and rapidly. Intellectual property is constantly enriched in the cross integration of cross industries, cross disciplines and cross fields, and is more closely related to modern science and technology, industrial economy and other external factors. The value of intellectual property

will be maximized through transfer and transformation. For example, the characteristics of scientific and technological innovation in the field of intellectual property rights have been significantly enhanced. To provide direction for innovation, the state has established the top design of “Internet plus”, and intellectual property rights focus on developing modern network information technology based on big data and cloud computing, and comprehensively and deeply integrate with traditional industries. As a core element, the proportion of technological innovation in intellectual property rights will also continue to increase.

### **3. Problems in Intellectual Property Management in Colleges and Universities**

#### **3.1. Weak awareness of intellectual property protection**

At present, most colleges and universities lack the awareness of intellectual property protection, do not fully recognize the importance of intellectual property, do not establish a special intellectual property planning and management system, and do not formulate an intellectual property protection system. At the same time, there is a lack of corresponding protection means and management methods, the transformation of scientific research achievements and patented technologies is not perfect, and the corresponding scientific research funds do not have appropriate decentralization standards and means. Therefore, the intellectual property rights of colleges and universities face great risks and threaten the common rights of teachers and students.

#### **3.2. Loss of intellectual property achievements**

As mentioned above, colleges and universities do not pay attention to intellectual property and lack protection means, resulting in great risks to intellectual property. In the absence of comprehensive protection, many intellectual property achievements will be lost. In some of the world’s leading universities in China, a special protection and research system should be established for the world’s leading scientific research achievements. However, most colleges and universities are not perfect in the research, confidentiality and use of intellectual property rights. The research methods and procedures of this achievement are easy to disclose, which has had a significant impact on China’s scientific research. This is not only the lack of patent registration system, but also the loss of the right to use it as a research institution.

#### **3.3. Students’ subjective initiative is not good**

High efficiency laboratories and scientific research institutions are mostly open or semi open. In the process of opening up, it is impossible to ensure the confidentiality of their own intellectual property information, especially in the research projects or topics in which some students participate(Yang Litao,2020). Even if the confidentiality regulations are signed, there is no guarantee that they will inadvertently disclose information, and the information security is threatened, resulting in a poor intellectual property management environment.

### **4. Construction of Intellectual Property Management System in Colleges and Universities**

Colleges and universities should pay close attention to the above laws and regulations, strive to adapt to the new normal, strengthen management and cultural guidance and strengthen the construction of intellectual property management system from the perspective of innovation driven development strategy. See Table 2 for details:

Table 2 Construction of intellectual property management system in Colleges and Universities.

| Construction of intellectual property management system in Colleges and Universities |  |   |   |   |
|--|--|---|---|---|
| Construction principle   | System management                                  | Incentive management                                | Flexible management                                   |   |
| Basic content  | Establish intellectual property service department | Improve the intellectual property management system | Build a perfect intellectual property service system  | Effective use of digital resources and intellectual property rights |
| Cultural support   | Training intellectual property talents             |   | Highlight the cultural value of intellectual property |   |

#### 4.1. Construction principle

System management: the construction of intellectual property management system in Colleges and universities is a systematic project. It not only has transactional management matters, but also includes strategic management positioning, so as to implement targeted management and services for all intellectual property resources, highlight the scientific research value of colleges and universities and support the development of science and technology.

Incentive management: when building the intellectual property management system, colleges and universities should effectively mobilize the knowledge creation enthusiasm of teachers and students, safeguard the rights and interests of scientific research and innovation, and build a knowledge innovation mechanism. The construction of intellectual property management system in Colleges and universities, especially the management regulations related to intellectual property, should be combined with the rules of colleges and universities on the basis of complying with national laws and regulations.

Flexible management: the objects of intellectual property management in Colleges and universities are all intellectual talents. The management pays attention to people-oriented. We should focus on information and property management, implement classified management of intellectual property information, facilitate teachers and students, and improve management efficiency. Explore the legal protection of intellectual property rights and coordinate the relationship between the rights and significance of intellectual property owners, users and the public.

#### 4.2. Basic content

Establishing service departments, standardizing work responsibilities and improving the operation mechanism are the key to strengthening intellectual property management. Qualified colleges and universities can set up special intellectual property management service departments to formulate intellectual property strategies. The legal guarantee department provides high-quality legal advisory services, and the market transformation department supports the transformation of project achievements.

Colleges and universities need to build an internal management and operation mechanism system on the basis of national laws and regulations, combined with their own reality and in accordance with the law of intellectual property creation and management. Establish a project intellectual property supervision mechanism to protect teachers' scientific research project application and research, and help teachers and students understand the new trend of patented technology and apply for patents. Establish intellectual property protection and reward mechanisms, such as the confidential signing mechanism of intellectual property rights between teachers and students, and link the assessment of teaching and scientific research personnel with intellectual property innovation. We will establish an intellectual property value evaluation mechanism, improve the income distribution system, pay attention to the commerciality of intellectual property, and protect the legitimate rights and interests of intellectual property.

Intellectual property service departments need to integrate intellectual property protection and

management into the whole process of university project management, so as to improve the quality of scientific research and avoid the loss of corresponding resources. At the same time, in the process of project preparation, it is necessary to cooperate with the project team to formulate intellectual property protection scheme. In practice, clarify the objectives and ownership of intellectual property rights. Specific protection methods are put forward in the acceptance link. In order to ensure the implementation of services, colleges and universities can set up or introduce special intellectual property management institutions to provide paid services to help colleges and universities carry out intellectual property management.

The intellectual property service department of colleges and universities should regularly organize training and information release, enhance the legal awareness of teachers and students, and avoid the risks in the construction and application of digital resources. Colleges and universities should make rational use of digital resources, build a scientific research data sharing platform, comprehensively screen the intellectual property information sources of scientific research projects, and carry out retrieval and effective display with the help of special software.

### **4.3. Cultural support**

First, when building an intellectual property management system based on innovation driven development strategy, we should pay attention to the cultivation of school intellectual property culture and strengthen the construction of intellectual property culture.

Second, colleges and universities can set up intellectual property courses to enrich the corresponding teaching contents. Qualified colleges and universities can set up relevant majors and research directions, cultivate applied intellectual property talents with the help of rich learning methods such as the second classroom, strengthen the allocation of intellectual property teachers in the teaching team, and build an intellectual property network knowledge platform.

Third, the formation and development of intellectual property or its system need to be based on the corresponding cultural background. Intellectual property culture can support scientific and technological innovation in Colleges and universities and is conducive to the industrialization and promotion of scientific and technological innovation achievements. In order to highlight its cultural value, colleges and universities need to strengthen internal intellectual property management and protection, build an intellectual property education system and highlight the cultural value of intellectual property.

## **5. Conclusion**

In a word, the intellectual property rights of Chinese colleges and universities face many problems, and there are great defects in the awareness of property rights protection and management system. Colleges and universities need to establish a standard system according to relevant national norms, clarify the construction suggestions of the intellectual property management system, and gradually establish service departments, improve the management system, complete the service system, strengthen the protection of intellectual property rights of digital resources, and pay attention to the construction of cultural environment based on the principles of system management, incentive, legal management and flexible management, Ensure the safety of intellectual property rights in a certain management process and create a harmonious scientific research environment.

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