

# Discussion on the Development Status and Trends of Intellectual Property Information Services in University Libraries

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## ABSTRACT

At present, various university libraries provide intellectual property information services as an important component of innovative services. In this context, by investigating the first group of national intellectual property information service centers that were set up in universities, this paper discusses the developmental status and trends in intellectual property information services in university libraries. The trends include standardization of services process, professionalization of service team, hierarchicalization of service content, diversification of service objects, and collaborative service mode.

**Keywords:** University libraries, intellectual property information services, investigation, trends

## 1. INTRODUCTION

As a basic strategic resource for the creative power of our nation, intellectual property is of great significance to scientific and technological innovation in China, and it represents an important factor that drives scientific and technological innovation. In the mid-1950s, since the Library of the Chinese Academy of Sciences took the lead by promptly collecting and providing foreign patent documents in China, the public in China started to obtain patent information services. Following many years of efforts, China established a multi-level patent information services system, comprising a national patent data center, regional patent information service centers and local patent information service centers. Information service institutions, such as libraries and intelligence agencies at all levels in China, have gradually taken on the task of providing patent information services to the public. As an important constituent part of the national scientific and technological innovation system and as a major provider of patent information services, colleges and universities also successively commenced providing patent information services at different levels.

In order to carry out the *Several Opinions of the State Council on Accelerating the Building of China's Strength in Intellectual Property under New Circumstances*, China implemented the deployments in the *13<sup>th</sup> Five-Year Plan for National Intellectual Property Protection and Utilization* as well as the *13<sup>th</sup> Five-Year Plan for National Education Cause Development*. These measures were implemented in order to thoroughly adopt the national innovation-driven development strategy, to improve the public services network for intellectual property information, and to enhance the innovative ability of colleges and universities. In addition, these strategies aimed to support the "double first-class" construction of

colleges and universities, and the National Intellectual Property Administration and the Ministry of Education of the PRC jointly formulated the *Implementation Measures for the Construction of Intellectual Property Information Service Centers in Colleges and Universities*, and jointly selected the first batch of national intellectual property information service centers to be set up in colleges and universities. The first batch of 23 national intellectual property information service centers, which were to be set up in colleges and universities, were selected by means of independent application, the submission of materials, preliminary screening, initial expert evaluations, on-site presentation and other selection steps[1]. The function of university libraries to provide intellectual property information services obtained further support at the policy level, and gradually moved towards clarification and standardization.

## 2. CURRENT DEVELOPMENT STATUS OF INTELLECTUAL PROPERTY INFORMATION SERVICES IN UNIVERSITY LIBRARIES

At present, various university libraries provide intellectual property information services as an important component of innovation services. In addition, such university libraries also carry out research and exploratory investigations related to the content and modes of intellectual property information services. However, generally speaking, the colleges and universities continue to face substantial difficulties in providing intellectual property information services, including problems in the areas of service positioning, the quality of personnel, resource construction and information research, which are mainly reflected in the issues discussed below.

### **2.1. Unclear Service Goals**

The researchers of the present study agree that university libraries should respond to the call of policies, serve the construction of double first-class universities, and actively carry out intellectual property information services. However, in terms of how these services should be provided, it is necessary to consider what university libraries should do and to identify the service objects of university libraries. For example, many colleges and universities have not set specific goals, and some, from among the first batch of colleges and universities, recently announced the establishment of national intellectual property information service centers (hereinafter referred to as "National Centers"). By browsing the websites of the first batch of National Centers, it can be observed that the library websites of several National Centers have not yet released any content concerning patent information services, such as Northeast Normal University, Guangxi University, and Ningbo University, among others. From this perspective, we learned, by means of verbal investigations, that this situation arose because the leaders of some National Centers have not yet set clear goals regarding how intellectual property information services should be promoted, and therefore, no specific deployments have been implemented.

### **2.2. Lack of In-Depth Service Contents**

Wu Ru[2] and other researchers conducted a statistical analysis of the content of patent information services provided by 115 university libraries, which summarized that service content included patent novelty searches, intellectual property training, patent retrieval, patent information analysis, intellectual property strategy, intellectual property standards implementation, patent early warning, patent value evaluation, patent rights protection, and patent agency. Among the aforementioned content, patent novelty searches, intellectual property training, and patent retrieval were identified as the main components of patent information services provided by university libraries. Most of the libraries which were engaged in these types of information services were awarded the status of science and technology novelty search stations by the Ministry of Education. However, libraries that provided in-depth patent information services, such as patent rights protection, patent early warning, patent value evaluation, and intellectual property strategy were comparably less, which indicated that the patent information services provided by university libraries in China remain in a stage of infancy and exploration.

### **2.3. Lack of Talents Specialized in Intellectual Property Information Services**

The staff who provide intellectual property information services should have knowledge and experience in the

domains of library and information services or have experience working within a certain specialty. In other words, such staff not only need to acquire knowledge about patent laws and regulations, but they must possess an understanding of the sub-discipline related to patents. At present, the patent information services provided by university libraries primarily rely on the following types of teams: a novelty search team, subject service team, a team specialized in patent information services, and other teams. It is obvious that, except for libraries that are equipped with a team specialized in patent information services, the existing novelty search team or subject service team faces challenges in terms of role changes as well as highly inadequate knowledge and service capabilities. Even libraries that are equipped with a team that is specialized in patent information services face difficulties, particularly in respect to a shortage of professionals due to issues such as leadership awareness or remuneration. Some surveys highlighted that[3] 67% of librarians held the opinion that, nowadays, the main difficulty faced by intellectual property information services lies in "the inability of the existing manning quotas to satisfy the requirements of patent information services", and 66% of librarians identified "the lack of talents specialized in patent information application" as being the primary difficulty. These findings indicated that university libraries lack personnel who are specialized in patent information services, and there is an urgent need to improve the skills of librarians who provide patent information services.

## **3. DEVELOPMENT TRENDS OF INTELLECTUAL PROPERTY INFORMATION SERVICES IN COLLEGES AND UNIVERSITIES**

Having reviewed a substantial body of literature concerning the patent information services that are provided by colleges and universities, and while investigating the websites of intellectual property information service centers set up in some universities, we concluded that the intellectual property information services offered by colleges and universities may experience the following trends:

### **3.1. Standardization of Services Process**

In terms of the process of intellectual property information services, some literature specifically discusses the optimization of the business process for patent information services in colleges and universities; the National Intellectual Property Administration issued a guiding document titled *Guidelines for Information Services Concerning Patent Documents* in 2016, which combed the business processes for various kinds of patent information services. Moreover, many colleges and universities also summarized the service process which was best suited to their own institutions by referring to the *Guidelines for*

*Information Services Concerning Patent Documents* and combining their working practice. For instance, Tongji University summarized its business model in the form of a flowchart[4]; Sun Yat-sen University and the University of Science and Technology in Beijing elaborated upon each part of the process including project commissioning, project acceptance, project implementation, project completion, etc.[5] Generally speaking, with the promotion of intellectual property information services in various colleges and universities, the service process will become more and more standardized.

### **3.2. Professionalization of Service Team**

As mentioned previously, at present, the patent information services provided by university libraries mainly rely on a novelty search team, a subject service team, a team specialized in patent information services, and other relevant teams. Some university libraries, which had started to provide patent information services earlier, have laid a foundation for patent information services, and made available patent information service specialists or intellectual property service specialists in the libraries. For example, the Peking University Library and Tongji University Library designated an intellectual property specialist to arrange relevant services in a unified manner and to be responsible for the planning and design of patent information services. The Library of Jingdezhen Ceramic Institute established Jiangxi Provincial Ceramics Intellectual Property Information Center, and the Jiangsu University Library established the Institute of Science and Technology Information, all of which empowered intellectual property service specialists to take full control of patent information services. As various colleges and universities attach greater importance to intellectual property information services, many libraries may gradually introduce talents with relevant professional backgrounds in law or intellectual property. In the meantime, various forms of relevant training, led by the National Intellectual Property Administration and the Ministry of Education, would also be carried out successively. Therefore, we believe that the intellectual property information service teams in university libraries can become increasingly more professional in the near future.

### **3.3. Hierarchicalization of Service Content**

According to the results of the current investigation, patent novelty searches, intellectual property training, and patent retrieval represent the main components of intellectual property information services in university libraries, while in-depth patent information services, such as patent rights protection, patent early warning, patent value evaluation and intellectual property strategy, have rarely been carried out in libraries. Everyone is calling for in-depth content within the area of intellectual property information services

in colleges and universities, as well as the provision of full-process services embedded in scientific research and the provision of strategic consulting for the university and local economic development. However, in light of the current circumstances, there is still a long way to go. For example, considering the approved national centers, few universities are capable of providing in-depth services, and some universities continue to provide only patent novelty searches or the forwarding of some relevant patent training published by the National Intellectual Property Administration. At the same time, there is still a huge demand for some basic services such as patent novelty searches and patent retrieval. Therefore, overall, the intellectual property information services that are provided by colleges and universities would continue to remain in a multi-layered status for a long time.

### **3.4. Diversification of Service Objects**

The users of intellectual property information are mainly divided into five groups, i.e., enterprises, research institutes, university teachers, scientific research management departments and government decision-making departments. In terms of intellectual property information service centers in colleges and universities, the main service objects should include university teachers and research management departments. In the meantime, the intellectual property information services that are provided by many colleges and universities rely on the previous novelty search team, which is faced with more extensive user groups, including enterprises, research institutes, and other colleges and universities that lack the necessary qualifications to carry out patent novelty searches, etc. Such user categories may also be included as service objects of intellectual property information services. In addition, given the importance that the government attaches to intellectual property information, the development of intellectual property information service centers in colleges and universities also requires the support of relevant government departments. As such, government decision-making departments would also be included as service objects of intellectual property information service centers in colleges and universities.

### **3.5. Collaborative Service Mode**

A series of policy documents including the *Several Opinions of the State Council on Accelerating the Development of Science and Technology Service Industry*, the *Notice of the State Council on Printing and Distributing the 13th Five-Year Plan for National Intellectual Property Protection and Utilization*, and other documents clearly proposed to "support the establishment of an intellectual property service alliance". Under the business guidance provided by the Science and Technology Development Center affiliated to the Ministry of Education and the Planning and Development

Department affiliated to the National Intellectual Property Administration, the University Intellectual Property Information Service Center Alliance was established in June 2018, the first council of which comprised 22 units. With the comprehensive rollout of intellectual property information services provided by colleges and universities, the colleges and universities within the alliance should, based on the principles of resource complementarity, goals consistency, and benefit sharing, promote resource sharing, team co-building and business synergy in all university libraries. In addition, efforts should be made to capitalize on the advantages of patent information services provided by various university libraries, thus encouraging patent information services, which are offered by university libraries in the alliance, to enter into a development stage that reinforces a virtuous circle.

#### **4. CONCLUSION**

While considering that China has paid significant attention to intellectual property work, improving intellectual property awareness among teachers and students in colleges and universities, and deepening the level of intellectual property information services in colleges and universities not only satisfies the requirements for the implementation of national and regional intellectual property strategies, but also meets demands for the construction of colleges and universities, especially in respect to the construction of "double first-class" universities. As an important service unit for the teaching and scientific research work carried out by colleges and universities, the provision, by university libraries, of excellent intellectual property information services is not only important for the construction of "double first-class" colleges and universities, but also represents a significant path by which libraries can encourage their own development. University libraries should implement all of

the policies issued by the Ministry of Education and the National Intellectual Property Administration, overcome their difficulties, capitalize on their existing advantages, strengthen exchanges and learning, and start from the foundation in order to gradually push forward the intellectual property information services provided by colleges and universities.

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