

Survey Research on Intellectual Property Literacy in Contemporary Universities

Authors: Xu Rongting, Chen Xin, Yan Jun-tang, Lu Jianqiu, Ding Shengyun, Hao Sumei, Huang Yinghua, Huiqin Zou, Zou Huiqin

Date: 2023-04-10T00:00:00+00:00

Abstract

[Significance] Through an investigation of medical education personnel and the current student body at Beijing University of Chinese Medicine, it was found that their intellectual property literacy is comparatively weak. Process: Through methods including questionnaire distribution via the internal network of the Beijing University of Chinese Medicine Library, this study surveyed faculty and student attitudes toward intellectual property literature and information, as well as their demand for related services. [Conclusion] Both undergraduate and graduate students neglect the cultivation and enhancement of their own intellectual property literacy, while institutions of higher education also demonstrate insufficient emphasis on intellectual property education. This paper proposes integrating student self-directed learning with institutional educational guidance to comprehensively enhance university students' intellectual property literacy, thereby implementing the national strategy for intellectual property literacy education.

Full Text

Investigation and Research on Intellectual Property Literacy in Contemporary Universities

Xu Rongting, Chen Xin, Yan Juntang, Lu Jianqiu, Ding Shengyun, Hao Sumei, Huang Yinghua, Zou Huiqin* Beijing University of Chinese Medicine, Beijing 100029

Abstract

[Significance] An investigation of faculty and students at Beijing University of Chinese Medicine reveals relatively weak intellectual property (IP) literacy

among these groups. **[Process]** The study employed questionnaire surveys distributed through the university library's internal network to examine attitudes toward IP literature and information, as well as demand for IP-related information services. **[Conclusion]** Both undergraduate and graduate students neglect the cultivation and improvement of their IP literacy, and universities do not place sufficient emphasis on IP education. The paper proposes combining student self-directed learning with university educational guidance to comprehensively enhance university students' IP literacy and implement the national IP quality education strategy.

Keywords: Intellectual Property; University Students; Literacy

With the deepening development of the knowledge economy and globalization, intellectual property has increasingly become a strategic national resource and a core element of international competitiveness, representing the key to mastering development initiative. Consequently, countries worldwide regard the IP system as a crucial mechanism for fully leveraging knowledge resources. In November 2020, President Xi Jinping emphasized during a study session that IP protection is vital to modernizing national governance systems and capabilities, and to national security. To build a modern socialist country comprehensively, China must strengthen IP protection across the board to stimulate innovation vitality throughout society. Enhancing independent innovation capabilities, building an innovative nation, and implementing IP and innovation-driven development strategies require that innovative achievements demonstrate originality rather than simply copying existing work. Robust IP literacy helps us fully utilize existing scientific and technological achievements while avoiding IP risks, thereby improving success rates and conversion rates of research outcomes. Universities serve as both important bases for scientific and technological innovation and major producers of IP. From this perspective, universities are not only creators but also users of IP literature and information. Ownership and utilization of IP literature and information significantly impact university teaching and research activities. University students, primarily undergraduates and graduates, constitute an important university demographic, and their use of IP literature and information represents a crucial component of overall university IP utilization.

Given that the Beijing University of Chinese Medicine Library has been designated as a second-batch "University National Intellectual Property Information Service Center," this study is based on the university's IP information services and literacy education work. Through questionnaire surveys distributed via the university library's internal network, the authors investigated faculty and student attitudes toward IP literature and information, as well as demand for IP information services. This research helps provide full-process support services for the university's IP creation, utilization, protection, and management, underpins collaborative innovation and advantageous discipline construction, and promotes transformation of scientific and technological achievements. It further improves the university's intelligent information service system.

1.1 Survey Participants

The survey targeted faculty and students at Beijing University of Chinese Medicine to investigate their cognition of, attitudes toward, and training needs related to intellectual property.

1.2.1 Questionnaire Design

Based on domestic IP-related books and research literature, and drawing on the experience of university IP and technology transfer professionals, the questionnaire was designed to include four components: non-sensitive basic information about respondents (2 questions), respondents' basic understanding of IP (4 questions), respondents' needs for university IP construction and services (4 questions), and the importance and guidance direction of IP popularization for respondents (4 questions) [?, ?].

1.2.2 Survey Method

This study employed electronic questionnaires distributed as WeChat QR codes through the internal news portal of the Beijing University of Chinese Medicine Library. All participants remained anonymous.

1.3 Data Collection and Analysis

Raw data were exported from the electronic survey software and organized and analyzed statistically using Excel. Count data were expressed as rates or percentages.

2.1 Basic Information

A total of 408 electronic questionnaires were collected, all of which were valid. The respondents included 44 undergraduates, 330 graduate students, and 34 faculty members.

2.2 Specific Findings

The investigation examined faculty and student cognition, attitudes, and training needs regarding intellectual property. Survey data indicated that respondents had limited cognition of IP-related knowledge (Tables 1 through 7) and lacked positive attitudes toward university IP construction and service needs (Tables 8 through 10).

Table 1 Which department should one apply to for patents? (Number of respondents, Percentage)

Table 2 Patent classification (Options, Number of respondents, Percentage)

Table 3 Protection term for invention patents under Chinese Patent Law (Number of respondents, Percentage)

Table 4 Channels for acquiring IP knowledge (Number of respondents, Percentage)

Table 5 Behaviors constituting IP infringement (Number of respondents, Percentage)

Table 6 Attitudes toward website resources transitioning from free to paid downloads (Number of respondents, Percentage)

Table 7 Methods for resolving IP disputes (Number of respondents, Percentage)

Table 8 Awareness of our university's designation as a second-batch university national IP information service center (Number of respondents, Percentage)

Table 9 Attitudes toward the library's "IP service-related training and lectures" (Number of respondents, Percentage)

Table 10 Demand for our university's "IP services, related knowledge explanations, and database training" (Number of respondents, Percentage)

3.1 Weak Intellectual Property Cultural Awareness

The survey reveals that university students and graduate students generally possess low levels of IP knowledge. While students access IP information through diverse channels, the internet serves as the primary source, indicating insufficient investment in IP education at our university. We must strengthen publicity and education on the IP system to enable students to fully recognize the importance of IP to national development.

3.2 Deviant Intellectual Property Behaviors Among Students

Proper rights protection awareness forms an important foundation for cultivating students' IP cultural literacy. The survey shows that when their IP rights are infringed, 70.83% of respondents choose to protect their rights through IP administrative departments, demonstrating strong rights protection awareness and the ability to adopt correct methods to safeguard their legitimate interests. Students' IP cognition and self-protection awareness are continuously strengthening.

However, when it comes to students' own specific IP-related actions, such as purchasing pirated discs or extensively quoting others' works in academic papers, contradictions emerge between their IP cultural awareness and behavioral choices.

3.3 Reasons for Weak Intellectual Property Cultural Literacy Among Students

The survey reveals that respondents demonstrate very low rates of correct cognition regarding specific IP content. This indicates that due to lack of social

practice, university students' understanding of IP lacks depth. It reflects that university students lack the motivation to deeply understand IP, resulting in relatively weak IP cultural literacy. Moreover, students' learning methods are monotonous: 69.91% of respondents reported learning about IP through the internet, while fewer chose IP courses, related books, or lectures.

The survey found that only 4.9% of respondents had participated in the "IP service-related training and lectures" organized by our university library, while the majority of students paid no attention to related thematic education activities. This demonstrates the absence of IP education for students in universities. It also reflects shortcomings in the organizational structure of university IP management agencies. University educators and managers often focus solely on imparting knowledge and skills while neglecting to emphasize IP learning among students and failing to make adequate planning and institutional arrangements. Furthermore, universities currently suffer from insufficient IP education faculty. Since China recognized IP relatively late, there are few related professional talents in universities. Meanwhile, universities have not prioritized the development of IP curricula, providing inadequate training for students and faculty, resulting in insufficient numbers of professional IP teachers. Consequently, both in quality and quantity, existing IP-related faculty in universities cannot meet the needs of current teaching practice. Another important aspect is that existing IP education in China lacks emphasis on practical activities, leading to low capabilities among university students in IP utilization and a lack of interest in applying IP.

4 Improvement Strategies and Recommendations

Based on the above discussion, the authors contend that Chinese university students and graduate students must first recognize the importance of learning about intellectual property. Students should consciously apply legal knowledge to analyze and solve problems in real life, closely integrating IP theories from their studies with IP cases from daily life and work. Leveraging university students' strengths in rational thinking, they should truly apply various relevant legal knowledge to practical life and work. Chinese universities also need to cultivate students' interest and enthusiasm in learning about IP.

Establishing a legal thinking mode constitutes a basic requirement for contemporary university students' IP literacy. Since thinking has a decisive guiding effect on behavior, establishing correct thinking modes is essential to guide students toward positive and reasonable actions. Developing the mindset of applying IP to solve problems can ensure that when encountering specific issues in work and life, university students first consider legal and reasonable solutions and can promptly use legitimate legal means to protect their interests rather than adopting erroneous, passive behaviors. Additionally, we need to strengthen IP cultural facility construction among university student populations and build a comprehensive IP patent literature information platform.

The authors believe that universities must first strengthen IP cultural education. As universities represent the primary front for IP learning, widely conducting IP education in universities can better improve students' IP literacy. Universities should earnestly implement the "Action Plan for Deepening Implementation of the National Intellectual Property Strategy (2014-2020)" issued by relevant departments, incorporating IP content not only into school education curriculum systems but also strengthening related content publicity in classrooms. They should conduct comprehensive IP-related publicity and education through various forms including campus display boards, classroom bulletin boards, and campus radio, as well as organizing related IP lectures or training courses.

Simultaneously, we must enhance university faculty training and advanced education levels, clarifying training objectives for university IP teachers. Only faculty represent the human resources guarantee for universities to conduct in-depth IP education. Universities must focus on providing professional development training for teachers to enhance faculty team construction. Only by improving teachers' IP-related professional levels can universities fully exploit IP education resources and better enhance students' IP literacy. Therefore, to improve students' IP literacy, we must start with faculty by comprehensively enhancing the construction level of university IP faculty teams and increasing resource investment in faculty IP training, enabling teachers to master advanced teaching concepts and timely teaching content. Curriculum content should emphasize cutting-edge topics. In addition to introducing general IP content and structures, we should explain specific IP applications in the context of contemporary development. Effectively combining IP infringement phenomena that students personally experience in daily life with typical domestic and international cases will greatly enhance course vividness and practicality.

We must establish a high-level IP professional faculty team and improve IP talent cultivation. Through long-term research, the authors believe that what truly attracts students to learn about IP is not its importance but the pathways through which they learn it. Therefore, we require teachers to develop novel teaching methods to impart knowledge and continuously enhance student enthusiasm. Meanwhile, the authors contend that given the strong professional characteristics of Chinese universities, each institution should conduct different IP publicity and teaching work for students in different majors. Only in this way will students combine IP with their specific professional content and increase their interest in relevant IP issues.

References

- [1] Ma Haixia. Intellectual property education and cultivation of university students' innovative abilities [J]. Journal of North China University of Water Resources and Electric Power (Social Science Edition), 2011, (01): 139-141.
- [2] Wu Yulin, Zou Yunlu. Research on intellectual property education and talent cultivation in Chinese universities [J]. Business Economics, 2013, (02):

124-125+128.

[3] Feng Xiaoqing, Gao Yuan. [J]. China Education Informatization 2012, 11(10): 5-8.

[4] Wang Jiangzhe, Liu Yi, Chen Xiaofei. Industry-university-research cooperation and transformation of university scientific research achievements: Based on the perspective of intellectual property protection [J]. Science and Technology Management Research, 2018, 38(17): 126-133.

[5] Gu Zhiheng, Chen Kai, Liu Nannan. Intellectual property issues in domestic universities' international scientific research cooperation from a contract perspective [J]. Science and Technology Management Research, 2019, (18): 164-169.

[6] Guo Ren, Cheng Xiaogang, Li Chaoming. Dynamics of enterprise collaborative innovation and intellectual property cooperation [J]. Science Research Management, 2018, 039(11): 107-115.

*Corresponding author: Zou Huiqin, Associate Researcher, Ph.D.

Author Introductions: Xu Rongting, Assistant Researcher, Ph.D., E-mail: xrt4047805@126.com

Funding: 2021 Industry-University Cooperation Collaborative Education Project (202101338036); 2019 National Traditional Chinese Medicine Graduate Education Research Project (20190723-FJ-B10); 2018 Beijing University of Chinese Medicine Education Science Research Project (XJZX18034)

Note: Figure translations are in progress. See original paper for figures.

Source: ChinaXiv — Machine translation. Verify with original.