

# Legal Issues and Institutional Improvement in the Performance of Intellectual Property Licensing Contracts

Nanfen Yu

Qualcomm Communication Technologies(Shenzhen) Co., Ltd., Shenzhen, Guangdong, 518052, China

## ABSTRACT

In the continuous advancement of the knowledge economy era, the performance of intellectual property licensing contracts, as a key vehicle for technology transfer and the realization of value, is directly related to the release of innovation vitality and the maintenance of market competition order. This paper dissects in detail the core legal issues existing in the performance of current intellectual property licensing contracts, and based on this, in combination with the challenges and opportunities brought by emerging technologies such as artificial intelligence and big data, proposes a series of strategies for improving the intellectual property licensing contract system in line with the development needs of The Times from multiple aspects such as institutional design, technology application, and regulatory guarantee. Through this study, the efficiency of the performance of intellectual property licensing contracts can be effectively improved, providing theoretical support and practical references for building a healthier and more sustainable intellectual property ecosystem.

## KEYWORDS

Intellectual property licensing; Legal issues; System improvement

## 1 Introduction

In today's context of the globalization of the knowledge economy and the rapid development of digital technology, intellectual property has become a strategic resource for national development and a core element of international competitiveness. Intellectual property licensing, as a key way to realize the value of intellectual property, enables rights holders to effectively transform their intellectual achievements into real productive forces through licensing contracts. However, with the accelerated evolution of innovation paradigms and the continuous innovation of business models, numerous complex legal issues have emerged during the performance of intellectual property licensing contracts, which are gradually becoming obstacles to the effective use of intellectual property. Against this backdrop, it is of crucial theoretical value and practical significance to conduct an in-depth analysis of the legal issues in the performance of intellectual property licensing contracts and to propose institutional improvement strategies in line with the development of The Times. This paper aims to comprehensively and systematically analyze existing problems, combine the latest practices and development trends at home and abroad, and construct a more sound, efficient and adaptable institutional framework for the performance of intellectual property licensing contracts, providing intellectual support for maximizing the value of intellectual property and optimizing the innovation environment.

## 2 Core Legal Issues in the Performance of Intellectual Property Licensing Contracts

### 2.1 Disputes Over Performance Standards Due to Ambiguous Contract Terms

In intellectual property licensing contracts, there is a certain degree of ambiguity in core terms such as the scope of authorization, the way of use, and geographical restrictions, which often become the source <sup>[1]</sup> of disputes over the performance of the contract. Unlike traditional property rights, intellectual property rights have the characteristics of intangibility, replicability and the ability to be used by multiple parties simultaneously, making the clarity of the contract terms particularly crucial. In practice, many licensing contracts do not have a clear definition of the "domain of use", which leads to much controversy over whether the licensee will breach the contract after the technology is iterated or the business is expanded. For instance, in a trademark licensing contract dispute between a state-owned enterprise and a mineral water company that was heard in a Shenyang court, the two parties did not clearly stipulate the specific amount of the trademark usage fee when renewing the licensing contract in 2012 and 2018. The absence of this provision directly led to a years-long dispute over performance. Eventually, the court had to settle the dispute by referring to the 2009 sales multiplied by the rate determined by the assessment agency in accordance with Article 511 of the Civil Code of the People's Republic of China. This situation is not uncommon in the practice of intellectual property licensing. When the licensing period is long and the market environment changes greatly, the ambiguity of the initial contract terms can cause great uncertainty in the performance process.

### 2.2 Uncertainty in the Calculation and Payment of Licensing Fees

Licensing fees are a key point in intellectual property licensing contracts and an area <sup>[2]</sup> where disputes occur

frequently. In practice, there are various ways to calculate royalties, including fixed fees, sales commissions, and tiered rates, each of which has its applicable scenarios and potential risks. The main problems are: First, the base of royalties is not clear enough. In complex transactions such as cross-licensing and combined licensing, it is difficult to precisely divide the contribution of individual intellectual property rights. Second, there is a lack of transparency in sales reports, making it difficult for licensees to verify the actual sales data of their licensees. Third, the response to market changes is inadequate, and the rates initially agreed upon in the long-term license contract are not in line with the rapid changes in the market and technology. In the case of the Shenyang court mentioned above, the defendant mineral water company has been using the trademark in question since 2003 without paying the usage fee, while the plaintiff, knowing of this situation, still renewed the contract twice. The two parties have never reached a clear consensus on the calculation method and payment time of the usage fee. This situation reflects the complexity of the design of the intellectual property licensing fee mechanism - to reflect the actual value of the intellectual property, while also taking into account the contribution of the licensee and the market's capacity to bear.

### **2.3 Disputes Over the abuse of the Right to Rescind and Terminate Contracts**

The dissolution and termination of intellectual property licensing contracts are related to the rights and obligations of the parties and have a direct impact <sup>[3]</sup> on the continued use of technology and the stable supply of the market. In practice, problems such as unclear conditions for termination, non-standard procedures, and insufficient consideration of the public interest are more prominent. For example, some licensees, taking advantage of their standard terms, set unreasonable termination rights clauses, and licensees often find themselves at a disadvantage after investing a large amount of sunk costs, thus facing the "sunk cost dilemma". In the case of the Shenyang court mentioned above, the plaintiff, a state-owned enterprise, claimed to terminate the contract and demanded usage fees. After the court's review, it was held that the defendant's failure to pay the usage fees did not meet the legal conditions for contract termination. The main reason was that the plaintiff, knowing that the defendant had not paid the fees, still renewed the contract twice, which indicated that there was other agreement between the two parties regarding the fee arrangement. This view of the judgment reflects the prudent attitude of judicial practice towards the right to terminate intellectual property licensing contracts, especially when the termination may put the licensee's business in serious danger, the court tends to maintain the stability of the contract. In the case, the court also emphasized that the right to use the trademark in question is the "core property interest" of the defendant mineral water company, and if it is prohibited from continuing to use the trademark in question, its business will face serious obstacles. This practice of recognizing intellectual property licensing rights as "core property rights" brings new legal thinking to restrictions on the right to terminate intellectual property licensing contracts and is in line with the legislative spirit of the Civil Code of the People's Republic of China, which encourages transactions and maintains the stability of the economic order.

## **3 Strategies for Improving the System of Intellectual Property Licensing Contracts**

### **3.1 Use Digital Technology to Optimize Contract Design and Performance Mechanisms**

Among the strategies for improving the intellectual property licensing contract system, leveraging digital technology to optimize contract design and performance mechanisms is a key approach <sup>[4]</sup> to addressing the challenges of traditional models and building an efficient and trustworthy licensing ecosystem. The focus of this strategy is to achieve intelligent management of the entire life cycle of the contract through technology integration. In the contract design phase, an intelligent contract generation system can be developed based on natural language processing and knowledge graph technology. By analyzing massive historical license data and judicial precedents, it can automatically identify key risk points in specific types of licenses, thereby dynamically generating standardized texts with strict terms and balanced rights and obligations for the parties. The most crucial approach during the contract performance period is to deploy a blockchain-based smart contract execution system: Encode the core obligations such as the agreed license fee calculation rules, authorization scope and duration into an automatically executable program, and when it acquires off-chain real sales data and other fulfillment information through oracle technology, it can automatically trigger the split payment, achieving precise and instantaneous tax allocation and completely changing the traditional lagging model that relies on manual reporting, verification and payment. In response to market changes, a big data-driven dynamic adjustment mechanism can be moderately introduced. The system continuously monitors market data such as industry rate standards and technical contribution, and when the preset trigger conditions are met, it provides negotiation suggestions for rate adjustment for both parties or automatically executes flexible terms to enhance the adaptability of the contract. This series of technical means work together to build a closed-loop management system from intelligent generation, automatic execution to dynamic optimization, providing solid technical support for the operation of intellectual property in a complex business environment.

### **3.2 Build a Full-chain System for the Operation and Supervision of Intellectual Property**

Building a full-chain operation and supervision system is a key guarantee <sup>[5]</sup> for maximizing licensing benefits and

preventing performance risks. This strategy focuses on a systematic layout that covers every link from source creation to subsequent transformation protection. In terms of operations, we can draw on the practical experience of Chongqing and other places to build a coordinated framework covering the supply side, the capital side, the industrial side, the out-of-region side, the protection side and the support side. For example, on the supply side, focus on mechanisms such as pre-patent application assessment and industrial patent navigation to cultivate and screen high-value intellectual property rights and provide quality targets for licensing; On the capital side, various financing channels such as intellectual property pledge financing and securitization should be expanded to activate the financial attributes of intellectual property and inject financial vitality into licensing implementation. In terms of regulation, the key is to enhance interdepartmental coordination and full-chain supervision: on the one hand, we need to deepen collaboration among departments such as intellectual property, judiciary, and market regulation, promote seamless connection between administrative law enforcement and criminal justice, and actively explore mechanisms like the "early intervention mechanism for reverse connection between administrative law enforcement and criminal justice" introduced by the procuratorate of Wujin District, Changzhou, to eliminate regulatory gaps. On the other hand, it is necessary to strengthen the guidance and supervision of intellectual property service agencies, promote the expansion of their service content from a single application agency to a full-chain service covering "pre-application assessment, post-application transformation and utilization", and enhance the overall service quality of the industry through credit evaluation and standardization construction. By building such closely connected and highly coordinated operational and regulatory loops, a solid institutional guarantee and a healthy ecological environment can be provided for the smooth performance of intellectual property licensing contracts.

### **3.3 Establish a Diversified Dispute Prevention and Resolution Mechanism**

Establishing a diversified dispute prevention and resolution mechanism is a key way to effectively resolve performance disputes, reduce the cost of rights protection, and maintain the stability of cooperative relations. The core of this strategy is to break through the reliance on a single lawsuit and build a collaborative governance system of "prevention first, mediation as the main, arbitration as a supplement, and judicial guarantee". In terms of prevention, it is necessary to strengthen contract guidance and compliance services, referring to the experience of the "Zhejiang Province Proof-of-Concept Center and Pilot Platform Intellectual Property Protection Guidelines", providing contract templates and dispute resolution process guidance for various licensing scenarios, and relying on industry associations to provide copyright consultation and compliance training to help enterprises identify and avoid risks. In the dispute resolution stage, relevant units should vigorously promote the "mediation first" principle, integrate industry forces to build a professional mediation network, and can use innovative methods such as "element-based text + industry mediation" to tabulate common dispute points, guide the parties to quickly identify core issues, and then have industry mediators intervene for assessment to improve mediation efficiency. In addition, for complex or foreign-related disputes, it is necessary to improve the arbitration and administrative protection mechanism, encourage parties to submit disputes to arbitration in accordance with arbitration agreements, and enhance the efficiency of administrative agencies in handling infringement disputes. At the judicial level, exemplary judgments can be relied upon to provide guidance for similar disputes, and judicial recommendations can be used to promote the source governance of common problems in the industry. With the organic connection of the above-mentioned prevention, mediation, arbitration and judicial methods, an efficient, flexible and low-cost closed loop for resolving disputes in intellectual property licensing contracts can be formed, ensuring the smoothness and security of licensing transactions.

## **4 Special Considerations for Intellectual Property Licensing Contracts in Emerging Fields**

### **4.1 Challenges and Responses to Artificial Intelligence Technology**

The rapid development of artificial intelligence technology is reshaping the licensing landscape of intellectual property, but it also brings a lot of legal problems. On the one hand, the rights to AI-generated content are unclear, resulting in legal uncertainties regarding the subject matter of licensing. On the other hand, the use of data in AI training involves the copying and analysis of a large number of copyrighted works, urgently requiring new licensing mechanisms to regulate. For the intellectual property licensing challenges of AI technology, these strategies can be adopted: First, introduce rights guarantee and compensation clauses in the contract design, clearly define the legitimate rights of the licensor to the AI technology or data, and agree on the sharing of liability for infringement. Secondly, develop new licensing models suitable for AI technology, such as the "free use + transmission-to-transfer" model, which lowers the threshold for innovation while ensuring technology sharing. In addition, the experience of Shanghai in "Typical Cases and Adjudication Rules for the Protection of Intellectual Property Rights in Artificial Intelligence" can be referred to to formulate special guidelines for licensing contracts in the field of AI, clarifying the division of rights and obligations in special scenarios such as open source algorithms and model sharing. Finally, in the context of the AI era, the boundaries of traditional intellectual property licensing are becoming blurred. As experts pointed out at the 22nd Shanghai

Intellectual Property International Forum, "AI is reshaping the global patent, copyright and trademark landscape, bringing opportunities such as improved examination efficiency and shortened innovation cycle, but also facing challenges such as ownership definition and infringement risk", so in the face of this trend, The intellectual property licensing contract system needs to maintain sufficient flexibility and adaptability to leave some room for technological iteration.

#### 4.2 Protection and Licensing mechanisms for Data Intellectual property rights

In the digital economy era, data has become a key factor of production, so the protection of data intellectual property rights and licensing rules urgently need to be established. The introduction of the "Practical Guidelines for Data Intellectual Property Rights in Zhejiang Province" has established a preliminary framework for the confirmation and licensing of data intellectual property rights, and there are particularities in data intellectual property rights licensing. Specifically, the boundaries of rights are ambiguous, and it is difficult to precisely define the scope of protection of data sets; Second, there are obstacles in value assessment, as the value of data is closely related to its application scenarios; Third, there are high privacy and compliance risks, involving many legal issues such as personal information protection and data security. In light of these characteristics of data intellectual property rights, the licensing contract system can be innovated in the following aspects: First, promote a tiered licensing mechanism for data, designing different usage rights and fee standards based on data sensitivity and value; 2 Introduce data usage traceability technology, using blockchain and other means to record the flow and usage of data, providing a basis for licensing fee calculation and infringement identification; Third, develop standardized data licensing agreements to reduce negotiation costs and facilitate the orderly flow of data elements.

#### 4.3 Intellectual Property Licensing for Proof-of-concept and Pilot Phases

Proof of concept and pilot-scale production are key links in the transformation of scientific and technological achievements. During these stages, there is a high degree of uncertainty and risk in intellectual property licensing. Zhejiang Province has specifically issued the "Guidelines for the Protection of Intellectual Property Rights in Proof-of-Concept Centers and Pilot Platforms", which provides institutional samples for intellectual property licensing at specific stages, given all the characteristics of the proof-of-concept and pilot stages. Therefore, intellectual property licensing contracts need to pay particular attention to the following issues: First, the rights to interim achievements should be clearly defined, and intellectual property rights should be reasonably distributed in cases involving multiple parties; Second, a risk-sharing mechanism should be established to stipulate liability waivers and cost-sharing in cases such as validation failure; Third, flexible licensing options such as priority licensing rights and exclusive negotiation rights should be designed to ensure the reasonable expectations of all parties involved. The guideline also states that "platforms should agree in writing with employees on the ownership of inventions and works created in the course of employment," which reflects the significance of clarifying ownership from the source. In addition, the intellectual property management of proof-of-concept and pilot-scale platforms should cover "the entire process, including results disclosure, patent application, maintenance, licensing operation, infringement risk prevention and control, and incentive mechanisms," which plays a key role in reducing subsequent licensing disputes and is worthy of promotion in other research and development-intensive fields.

## 5 Conclusion

To sum up, improving the system for the performance of intellectual property licensing contracts is a systematic project that requires collaborative innovation in legal rules, technical tools and governance concepts. This paper analyzes the core legal issues in the current performance of intellectual property licensing contracts and, in light of the new characteristics and requirements presented in the digital age, proposes a series of strategies for improving the system. The findings suggest that the improvement of the intellectual property licensing contract system should move towards a more intelligent, full-chain, and flexible adaptation direction.

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