

The Dysfunction and Remedies of Copyright Registration System in the Digital Era

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Abstract. In the digital age, the ever-growing development of communication technologies and their efficiency pose new challenges to the copyright registration system. Whether it is the registration demand for opuscles in the era of explosive works or the need to add the validity of registration under zero-cost dissemination, it signals a new turning point for the copyright registration system and calls for new changes. The inherent logic behind a voluntary copyright registration system lies in legal incentives and the fundamental reason for the malfunction of China's copyright registration system in the digital age is the imperfection of intrinsic incentive mechanisms. In order to address this problem, based on the Cost-Benefit theory, the paper proposes the construction of a legal incentive mechanism for copyright registration from two aspects: reducing registration costs and increasing registration validity through intensive management, differentiated examination and an auxiliary registration system. It is expected to lower the threshold of copyright registration and meanwhile to provide practical operational standards to increase registration validity.

Keywords: Copyright Registration; Legal Incentives; Copyright Examination; Registration Validity.

1. Introduction

The *Berne Convention for the Protection of Literary and Artistic Works* (hereinafter abbr. *The Berne Convention*) has established the principle of “automatic acquisition of copyright” worldwide. However, the extent of protection and remedies for infringement are still determined by individual member countries. How should copyright be protected? What kind of protection should be provided for copyright? Thus, the copyright registration system has been noticed by legislators. As an important means of copyright protection, it can provide evidence of ownership for copyright owners. It can also reduce transaction costs and ensure transaction security during copyright authorization and transfer [1].

China's copyright registration system is an imported concept and scholars have provided two different viewpoints for its localization transformation. The first view mainly focuses on the differences in degrees of protection, whose supporters advocate for institutional reforms that differentiate between registered and unregistered works [2][3][4][5]. The other viewpoint suggests establishing a transaction-based copyright registration system that integrates registration platforms with transaction platforms, combining public and private efforts for copyright registration [6][7].

However, with the advent of the digital age, the exponential growth of digital works and the nearly zero-cost digital reproduction and distribution methods have rendered the malfunction of traditional copyright registration management. How should the copyright registration system be implemented in the digital age? How can the traditional copyright registration system be strengthened so as to adapt to the registration of works in the digital age? Since Xi Jinping put forward the philosophy that “protecting intellectual property rights (IPR) is protecting innovation” in 2020, China has introduced a series of policies and regulations, including the “The National Intellectual Property (IP) Strategy to Accelerate the Construction of An Intellectual Property Power Country (2021-2035)”, “the IPR Protection and Application Plan for the 14th Five-Year Plan Period” and “Copyright Plan for the 14th Five-Year Plan”, focusing on issues related to modern copyright governance. The copyright registration system, which determines the ownership of works, is the first link in “beginning-to-end protection” [8] and has a profound influence on subsequent copyright management and authorization. Therefore, in-depth research on the copyright registration system in the digital age is of great practical significance.

The paper will review the origin and development of the copyright registration system. Focusing on the new characteristics of work creation and dissemination in the digital age, the paper analyzes in-depth the challenges faced by the copyright registration system in the digital age, and thereby clarify the need for reform of the copyright registration system. Finally, it elaborates on how to repair the copyright registration system with a view to providing more comprehensive protection for registered works.

2. The Origin and Development of the Copyright Registration System: From Introduction to Localization

In 1476, the movable type printing was introduced to the UK, which freed the dissemination of works from the constraints of handwritten copying. The number of printed materials surged and they spread widely in the society. In order to prevent political pamphlets from harming the interests of the monarchy, the British royal family enacted laws requiring the registration of the names of all printed materials by the government [9]. It was the embryonic form of the copyright registration system. In 1709, the UK issued *The Statute of Anne*, AKA *The Copyright Act*, which stipulated that copyright protection could only be obtained after registration. It marked the birth of the copyright registration system in the modern time. Many countries of the common law system and several countries of the civil law system followed suit, leading to the rapid promotion of the copyright registration system worldwide.

With the rapid development of technology, the copyright registration system has been playing a more critical role. The invention of sound, visual and electromagnetic media, such as phonographs, film projectors, television, and CDs made various forms of works like musical and audiovisual works fixed on carriers to spread. Besides, the medium of dissemination evolved from the single form of books to various forms, providing works with richer expressions and more diverse formats. With the invention of computers and the internet, works can be disseminated without physical carriers, which reduces dissemination costs, improves the efficiency of dissemination and expands the scope of dissemination. During the technological development, works are disseminated by a single medium to multiple media, and eventually beyond any media; the boundaries of copyright dissemination continue to expand, and the value of copyright become increasingly prominent, thus highlighting the growing importance of the copyright registration system.

Influenced by the globalization of technology, computers and the internet have rapidly gained popularity in China. A large number of works are created by computers and stored and disseminated as electronic data. It poses challenges to the identification of copyright. In order to determine copyright ownership and provide preliminary evidence for resolving copyright disputes, China has introduced the “Trial Measures for the Voluntary Registration of Works” which introduced the copyright registration system. Subsequently, it has issued “Registration of Computer Software Copyright Procedures” and “Registration of Pledge of Copyright”.

After the introduction of the copyright registration system, the subjective willingness of copyright owners to register was influenced by cumbersome registration procedures, high registration fees, and low registration efficiency [10]. Moreover, it was further diminished by inaccurate registration information and limited functions of confirmation of rights. Therefore, the studies on its localization mainly focus on the reform of registration authorities and the improvement of registration validity. In terms of the research on the reform, establishing public service standards helps conduct decentralized copyright registration in an orderly manner [2]. Also, founding a supervisory agency for copyright registration can ensure the accuracy of registration information [3]. Besides, the authorities should organize the non-governmental organizations (NGOs) to participate in the construction of a unified copyright registration platform, which helps prevent duplicate copyright registrations [4]. However, compared to administrative registration authorities, all-in-one online platforms that integrate copyright registration and transaction functions have more advantages in reducing registration costs, discovering the market value of copyrights, and controlling transaction risks [6]. Therefore, they

represent the development trend of future copyright registration. However, efforts are still needed to ensure the authority and uniformity of copyright registration on such platforms.

Regarding the improvement of registration validity, the existing copyright registration system only serves as initial evidence. To encourage copyright registration to play a bigger role in protecting copyrights and providing remedies for infringement, reference should be made to the copyright registration incentive system in the United States. Copyright registration certificates should be recognized as legal evidence of copyright. Registered works should be granted longer protection periods and higher statutory damages. When copyright ownership is transferred, some suggest that changing a registration antagonism shall grant the registration certificate of transferring copyright validity against the third party [2]. It also means that copyright changes cannot be enforced against third parties without registration, which allows parties to decide whether to register their copyrights based on the transaction situation and the risk. However, others argue that it is necessary to adopt a registration validity and introduce the Bona Fide Acquisition (BFA) of the copyright to protect the innocent third parties [3].

In general, the integration of registration authorities and the increase of registration validity have received wide attention from scholars, but seldom does the mention of how to lower the institutional threshold. Existing research takes it as prerequisite that works can meet the institutional threshold but overlooks the fact that copyright registration is a system with “thresholds”, and the prerequisite for registration is the payment of registration fees. In addition, increasing the validity of the copyright registration should admittedly construct an ideal scenario, but there exist limited studies on how to increase the validity in reality. Therefore, it is meant to analyze the direction of copyright registration system reforms hereafter from the registration needs of the works in the digital age.

3. Dysfunction of the Copyright Registration System in the Digital Age: Partial Malfunction and Overall Nullification

Before the advent of digital technology, new technologies, such as records, film projectors, television, and CDs played a positive role in the creation and dissemination of works. However, creating such works often required authors to have a certain command of professional knowledge and money. At the same time, audiences often had to be present at specific times and places to view or listen to works. It means the limited scope of dissemination. However, in recent years, with the clustering and interactive development of new technologies like the mobile internet, cloud computing, big data, artificial intelligence (AI), the Internet of Things (IoT), and blockchain technologies, there has been an explosive growth in the number of works. The scope of their dissemination has also expanded without limits. Faced with new challenges posed by the digital age, the copyright registration system has shown dysfunction to some degree.

3.1 Partial Malfunction of the System: High Registration Costs Make It Difficult for the Registration of a Massive Number of Opuscles

The lowering of barriers to creation has led to the emergence of a vast number of works. The enormous user base and convenient information access provided by mobile internet technology have facilitated the development of various social media platforms with the function of We Media, such as Weibo and TikTok, providing a shared space for creation among the public. With the increasing power of smartphones and the growing development of social media platforms, the restrictions set by professional creative skills and high production costs of traditional works have been overcome; the thresholds to creation have been lowered. Ordinary people from all walks of life can transform their ideas into various forms of works without profound professional knowledge. For example, in 2020 China entered the era of “video socialization” where videos have become a stage for the public to showcase their lives. In the era where everyone can be a producer, the general public has the conditions to transform their inspiration into works. It has resulted in a large number of fragmented and decentralized works with a more apparent Long Tail Effect [11]. Although individual values of

many less-known works are low, their cumulative total income is significant due to the characteristics of their large variety, enormous quantity, and diverse dissemination methods. Sometimes it even surpasses the profits brought by well-known works.

However, opuscles often fail to realize the economic value of their copyrights through the copyright registration system. On the one hand, the individual copyright of an opuscle makes insignificant interests, but registration individually incurs high costs. Except for some works with a small number of words or oral works, most registration fees of copyright cost at least 300 yuan per work, which is even higher than the value of the work itself [12]. Furthermore, although online registration has improved the efficiency of application without actual paper, completing the registration within 30 workdays after acceptance is still too slow for rapidly iterating opuscles in the digital age. On the other hand, due to the lack of entrusted management by collective organizations [13], large quantities of opuscles cannot rely on collective registration for batch confirmation of rights. Therefore, the high threshold of registration renders the copyright registration system partially malfunction. It has caused low registration applicability for opuscles, and unconfirmed copyrights, leaving them vulnerable to free use and infringement by others.

3.2 Difficulty in Achieving the System's Utility: Disproportionate Demands for Work Registration and the Legal Validity of Copyright Registration

In copyright infringement disputes, the copyright registration certificate serves merely as preliminary evidence of copyright rather than legal basis. When the evidence submitted by the accused infringer is sufficient to challenge the legal facts established by the copyright registration certificate, the plaintiff still needs to provide further evidence to prove the ownership of copyright. The increase in the burden of proof not only means a significant increase in the cost of rights protection but also a substantial increase in the risk of losing the case.

The improvement in the efficiency of digital dissemination has led to a surge in digital infringement. Data compression technology allows various forms of works to be stored and distributed in large capacities and over long distances, which greatly enhances the efficiency and widens the scope of dissemination. The development of big data search engines and AI facilitates filtering for the audience and expands the information channels for communication between works and audiences within a vast pool of works. Mobile technology, supported by portable and bidirectional mobile communication devices such as smartphones and tablets [14], breaks the limitations of time and space, allowing the public to enjoy works at their chosen time and location. However, the progress of digital technology is a double-edged sword. Once a work is made available on a publicly accessible online platform without adequate technological protection measures, anyone can access the work through search engines and make indistinguishable copies through digital replication techniques. Infringers can leverage the convenience of digital technology to exponentially expand the dissemination of unauthorized copies, squeezing the legitimate space for dissemination by copyright owners. The uncontrollable dissemination scope, difficulty in identifying disseminators, and unpredictable modes of dissemination make digitalized infringement more widespread and covert [15], leading to the ever-increasing costs for copyright owners to protect their rights and escalating difficulties in collecting evidence. Copyright owners urgently need copyright registration to ensure their rights in a definitive state. However, the limited legal evidentiary force of the current copyright registration system fails to meet the needs of copyright owners, and the validity of the registration system is difficult to achieve.

4. Ways to Repair the Malfunction of Copyright Registration System: Constructing Intrinsic Incentive Mechanisms

The fundamental reason for the malfunction of the copyright registration system lies in its inherent flaws in the design of incentive mechanisms. Therefore, to eliminate the chaos in practice and overcome the challenges faced by the copyright registration system, it is necessary to make the system

aligned with the current copyright law in China while satisfying the needs of both copyright owners and transaction parties. Hence, the Cost-Benefit theory should be applied to improve the intrinsic incentive mechanisms of copyright registration. Based on the economic theory, an action is considered worthwhile when the benefits outweigh the costs [16]. Therefore, the improvement for the incentive mechanisms of the copyright registration system lies in changing the weighting relationship between “cost” and “benefit”, which will reduce the registration costs, increase the registration benefits, and revitalize the system.

4.1 Theory of Law: Aligning the Incentive Mechanisms of Copyright Registration with the Purpose of China’s Copyright Law

The civil law system and the common law system protect the rights of works respectively through authorship rights and copyright. In the civil law system, works are first viewed as an extension of the author’s personality and spirit, while in the common law system, works are primarily seen as the author’s property. These different understandings of works have led to different regulations regarding the rights of works in these two legal systems. Based on “Theory of Natural Rights” [17], “Of Labor and Work” [18] and “On Personality Rights” [19], the civil law system argue that works are the embodiment of the author’s free will. When authors express themselves through creation, they naturally acquire copyright upon completion. On the other hand, the common law system is based on the incentive theory marked by utilitarian philosophy and liberal economics [20]. It argues that the Copyright Law confers certain ownership within certain period on the author, aiming to promote social welfare by incentivizing the creation, acquisition, and utilization of new works [21]. Under the guidance of the incentive theory, the common law system requires registration as a prerequisite for protecting works, with the intention of bringing more works into the public domain.

The two law systems later reached an agreement in *the Berne Convention* that copyright protection is automatically granted upon the completion of a work. Countries like the United States have abolished the formalities for copyright acquisition. However, with the development of dissemination technology, the copyright registration system has demonstrated unique functions in maintaining transaction security and reducing transaction costs. Furthermore, *the Berne Convention* allows countries to establish their own provisions regarding the scope of copyright protection and remedies for infringement, leading the United States to revive the copyright registration system [5] as a voluntary registration system. The American measures grants the registrants broader rights and remedies by incentivizing copyright owners to register through rights allocation.

In the choice between authorship rights and copyright, although China’s Copyright Law has overall adopted the authorship rights system originating from continental Europe (same as the civil law system), it has also incorporated the “incentive theory” as the legislative principle instead of the “Of Labor and Work” [22]. It emphasizes that the core of copyright lies in promoting social welfare, namely through encouraging the creation and dissemination of works to promote the development and prosperity of socialist culture and scientific endeavors. The intrinsic incentive mechanism of copyright registration, which provides copyright owners with sufficient expected income to motivate registration, corresponds to the principle of incentive theory underlying the Copyright Law.

4.2 Arrangement: Constructing the Legal Incentive Mechanisms for Copyright Registration

Legal incentives refer to the stimulation and encouragement of legal subjects’ behavior by the legal system, including positive (with rewards) and negative (with punishment) ones [16]. In China, the legal incentive model can be categorized into three types: incentives related to rights, obligations, and responsibilities; incentives related to cost and benefit allocation; and incentives related to treatment and honor [23]. It is considered in the paper that to overcome the malfunction of the copyright registration system in the digital age, we should address the issues in the incentive mechanisms. Specifically, the attention should be paid to reducing cost-based incentives and increasing benefit-based incentives. It is important to establish a copyright registration legal incentive mechanism that is in line with the national conditions and scientific management.

(1) Reducing cost-based incentives: Lowering the Threshold of the Copyright Registration System

Practice has shown that the higher the “institutional threshold” of a system, the lower its frequency of practical application. Failure to fully utilize the system’s functions to maximize the benefits of fairness and justice will inevitably waste the public resources invested when the social system was initially established [24]. Therefore, it is necessary to establish an effective cost control mechanism, reduce registration costs, and expand the scope of incentivized subjects. This will make the copyright registration system applicable to the registration of opuscles. It can be put into practice from the following two aspects.

Firstly, it is important to establish an all-in-one online copyright registration platform to achieve intensive management. The Copyright Protection Center of China (CPCC) has already established a national copyright registration database and a public inquiry platform. In recent years, work registration has been fully digitized. Despite the obvious good results in unified management, the degree of intensification is not high. Specifically, besides software works registered by the CPCC, the copyrights of other works can still be registered at local copyright bureaus. However, due to the lack of professionals or financial resources, many local copyright bureaus often have low efficiency in the examination process, resulting in the waste of examination resources. Therefore, it is necessary for the CPCC to lead the establishment of an all-in-one copyright registration platform, implementing unified online registration. By allocating manpower, material, and financial resources for copyright registration, the utilization efficiency of registration resources can be improved. Thus, authorization and management costs can be reduced. Consequently, the cost of copyright registration can be lowered. This approach is also conducive to the efficient integration of registration information.

Secondly, it is important to establish of a multi-organizational affiliated copyright registration platform which enables specialized management. Copyright collective management organizations have unique advantages in the examination and management of works. Their artistic expertise enables them to assess and select works based on their artistic characteristics, while their market expertise allows them to adjust registration fees and benefit distribution according to the development trends and characteristics of the cultural market. Therefore, the professional copyright collective management organizations, which assist the construction and management of the all-in-one online copyright registration platform of the CCPC, serve as an extension of the administrative registration authority. They undertake part of the examination and management of works, achieving specialized and intensive management of similar works. It is aimed to enhance registration and examination efficiency while maximizing social resources to reduce authorization and management costs.

Thirdly, it is necessary to develop a differentiated copyright registration system to achieve categorized management. In the digital age of the “explosion” of works, conducting uniform one-on-one registration and rights confirmation for all works at the National Copyright Administration of China (NCAC) and the CPCC will inevitably result in a backlog of application evaluations and low administrative efficiency. To address these problems, differentiated registration should be implemented for different types of works. Different registration models can be set based on whether substantive examination is conducted, and the registration platform can charge different registration fees based on different examination standards. For works that undergo substantive examination, higher registration fees can be charged, and stronger protection measures can be implemented after examination. Applicants can autonomously choose the registration model according to the value of their works. Additionally, apart from individual registration, a collective registration model can be introduced. For opuscles with low independent copyright value, batch registration of similar works can be allowed through the collective registration model.

(2) Increasing Benefit-based Incentives: Harnessing the Utility of Copyright Registration for Rights Confirmation

In the traditional sense, increasing benefit-based legal incentives refer to the increase in economic benefits [23], such as loan incentives for small and medium-sized enterprises. It is aimed to provide

a broader explanation by including legal benefits and explore how to improve the legislative and operational norms of copyright registration to increase its legal validity in this paper. This will ensure that the utility of the system is fully realized in the digital age. It can be considered from the following three aspects.

Firstly, we should include copyright registration in legislation to improve its legislation. The current copyright registration system is only reflected in three administrative regulations, and there are no provisions regarding copyright registration in the higher-level Copyright Law. This can lead to conflicts in the exercise of power between judicial and administrative authorities, resulting in the unstable validity of copyright registration certificates [4]. When a third party applies for the revocation of copyright registration and provides relevant evidence, according to the “Trial Measures for the Voluntary Registration of Works”, the registration authority has the right to revoke the registration if it discovers inconsistencies with the facts. However, the registration authority is merely an administrative agency and cannot act as the adjudicator in the ownership of copyright disputes. The power to determine copyright ownership belongs to the court. Therefore, it is necessary to establish and guide the copyright registration system in the form of law. It is important to set general provisions in the Copyright Law to determine registration matters, registration validity, registration authorities, and establish auxiliary registration systems such as correction registration, objection registration, and advance notice registration. This will expand the influence of the system and provide it with legal certainty.

Secondly, we should refine the registration examination process to increase the evidentiary value of copyright registration certificates. Copyright originates from the author’s creative activity, and the rights are automatically granted upon completion. Therefore, copyright registration does not create rights but rather confirms and proves the legal fact of copyright ownership through administrative registration. In practice, the registration authorities only conduct a form examination of the works submitted for registration, but do not perform substantive examinations like comparing similarities (except for computer software copyright registration). Copyrights registered without substantive examination remain in an uncertain state. The copyright can be denied through evidence in court. In copyright infringement disputes, registration serves as initial evidence. However, if the accused party provides sufficient evidence to refute the legal facts proven by the registration certificate, the plaintiff still needs to submit drafts, originals, legally published works, and contracts to prove their rights. The plaintiff cannot gain a substantial advantage solely based on copyright registration.

Therefore, according to different examination models, the registration authority should refine the examination process and conduct differentiated examinations. As discussed earlier, registrants have the freedom to choose the registration model. If they choose substantive copyright examination, their copyright registration certificate should have the presumption of copyright ownership. It can serve as direct evidence of copyright ownership in infringement disputes, unless there is an objection registration by a third party. Registrants who choose only form examination will have their registration certificate serve as preliminary evidence. Through differentiated examination procedures and registration effectiveness, registrants are encouraged and guided to conduct substantive copyright examinations.

Thirdly, we should establish auxiliary registration systems to protect the interests of third parties. One type is the objection registration system. It is clearly unfair for the actual copyright owner when a registrant uses another person’s work for copyright registration and get the copyright after substantive examination. Therefore, the actual copyright owner should have the right to file an objection registration against copyright registration. The registration platform should publicize copyright registrations with objections, so that copyright registration no longer carries public credibility, thus preventing third parties from BFA. After a court ruling, the copyright registration authority can proceed with the change of registration to restore the credibility of registration. Another type is the advance notice registration system. After signing a copyright transfer agreement with the copyright owner, the transferee can apply for advance notice registration with the copyright

registration authority. This restricts the copyright owner's subsequent disposal rights and prevents the "one piece of work with multiple transfers" scenario. Additionally, to expedite the determination of registered copyrights, the applicant for objection registration should file a lawsuit for rights confirmation within a certain period. The applicant of advance notice registration should apply for a change of registration within a specified timeline. Otherwise, the objection registration and advance notice registration will become invalid.

5. Conclusion

Looking back at the history of the copyright registration system, technological advancements have had a profound impact on its birth and evolution. With the emergence of various new technologies in the digital age, whether it is the registration demand for opuscles in the era of explosive works or the need to add the validity of registration under zero-cost dissemination, it signals a new turning point for the copyright registration system and calls for new changes.

Through research, it is found that the voluntary registration system for copyrights is essentially a form of legal incentive. The fundamental reason for the malfunction of China's copyright registration system in the digital age lies in the imperfect internal incentive mechanism. Similar to existing research, this paper also aims to unify copyright registration management and strengthen the legal effectiveness of copyright registration, with the expectation of improving the legislation of copyright registration. Based on this aim, the paper constructs a legal incentive mechanism for copyright registration from two aspects: reducing registration costs and increasing registration validity. Through intensified management, differentiated examination, and auxiliary registration systems, it is aimed to lower the threshold of the copyright registration system and provide practical operational norms to increase the validity of registration.

However, there also exist some limitations. Auxiliary registration systems are proposed in this paper, including objection registration and advance notice registration, to protect the legitimate interests of third parties. However, further studies are required to address the following issues. One, whether the auxiliary registration system, especially objection registration, will evolve into a litigation strategy for accused infringers in copyright infringement disputes, such as initiating rights confirmation lawsuits to delay the litigation process. Two, how to improve objection registration will avoid malicious auxiliary registration. These issues are worthy of further in-depth discussion.

References

- [1] Zhao, X. (2016). The Necessity of Copyright Registration in Copyright Law. *Publishing Research* (5), 69.
- [2] Wen, J. (2011). The Present Situation, Issues, and Improvement of Copyright Registration System in China: Starting from "One piece of work with multiple transfers". *Publishing Research* (5), 48-50.
- [3] Su, P. & Zhang, C.R. (2022). An Analysis of China's Copyright Registration System--Comments on Article 12 of the Newly Revised Copyright Law. *Electronics Intellectual Property* (5), 4-9.
- [4] Liu, L. (2017). Practices of Work Registration and the Improvement of Copyright Registration System in China. *China Publishing Journal* (5), 17-20.
- [5] Huang, X.R. & Liu, L.W. (2017). Enlightenment of the Revival of American Copyright Registration System for China. *Modern Publishing* (1), 62-66.
- [6] Lv, B. B. (2017). A Third Alternative to Copyright Registration Renovation: Copyright Registration for the Purpose of Exchange. *Journal of Comparative Law* (5), 170-181.
- [7] Wei, S., Zhang, H.B. & Li, Y.H. (2022). Solutions to Copyright Licensing Problems in the Digital Network Era. *Print Culture* (1), 149-160.
- [8] "Copyright Plan for the 14th Five-Year Plan", http://www.gov.cn/zhengce/zhengceku/2021-12/29/content_5665256.htm, 2021.12.24. [EB/OL]
- [9] Gantz, J. & Rochester, J.B. *Pirates of the Digital Millennium*. Trans. Zhou, X.Q. (2008) Law Press·China, 24.

- [10] Zhang, B.Q. & Li, L. (2019). Balance of Digital Copyright Interests Based on Blockchain Technology, *China Publishing Journal* (11), 22-25.
- [11] Chris, A., *The Long Tail: Why the Future of Business is Selling Less of More*. Trans., Qiao, J.T. (2006), Beijing: CITIC Press Group, 1-14.
- [12] Cui, G.B. (2014). Theory of IPR Confirmation Mode Selection, *Peking University Law Journal* 26 (2), 408-430.
- [13] Jia, Y.S. (2018). On Issues of Online Copyright Transactions Based on Blockchain Technology, *Science-Technology & Publication* (7), 94.
- [14] Laura Naismith, Peter Lonsdale, Giasemi Vavoula, Mike Sharples, Yang, Y.Q., Zhong, H.R. & Jiao, J.L. (2008). Literature Review in Mobile Technologies and Learning. *Journal of Distance Education* (01), 4-13.
- [15] Li, J.J. & Wang, Z.G. (2017). Exploration of Digital Copyright Protection Driven by Blockchain Technology. *News Research* (10), 25-28.
- [16] Feng, F. (2012). Modes of Incentives in the Governance of Law. *Law and Social Development* 18(2), 151-160.
- [17] Hobbes, T.: *Leviathan*, Trans., Li, S.F. et al. (1986), Commercial Press, 97.
- [18] Locke, J., *Two Treatises of Civil Government (Second Treatise)*, Trans., Ye, Q.F. & Qu, J.N. (1964), Commercial Press, 18.
- [19] Hegel, G.W.F., *Grundliniender Philosophiedes Rechts*, Trans., Fan Y. & Zhang Q.T. (1961). Commercial Press.
- [20] Liu, Q. & Mu, Y. L. (2019). On the Interaction between Science and Technology Policy of Artificial Intelligence and Intellectual Property Law. *Economic Law Review* (1), 289-312.
- [21] He, L.H. (2001). On the Rationality of Transferring the Copyright. *Studies in Law and Business* 18(3), 47-54.
- [22] Liu, C.T. (2021). On the thirty years of China's Copyright Law (1990-2020). *Intellectual Property* (3), 3-26.
- [23] Hu, Y.C. (2013). On the Categorization of Legal Incentives in China. *Studies in Law and Business* 30 (4), 36-45.
- [24] Pound, R. *Social Control Through Law*. Trans., Shen, Z.L. (2010), The Commercial Press, 5-10.
- [25] A Brief Analysis of the National Copyright Registration Status in 2012 (2013), *China Publishing Journal* (3), 30-32.