

Legal Regulation of Non-fungible Token Digital Collection Trading in China

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Abstract: Digital collectibles are a new concept in the cultural industry that is based on blockchain and non-fungible token (NFT) technology. The current state of digital collectibles in China shows a trend of rapid growth from nothing to something, from sporadic to messy, with imperfect related laws, regulations, and supporting systems. The copyright ownership risks and platform transaction risks of digital collectibles in China are prominent. This article focuses on the production and transaction processes of digital collectibles, aiming to clarify the attributes and boundaries of copyright ownership of digital collectibles in China, define platform responsibilities, reduce transaction risks, and protect the legitimate rights and interests of consumers.

Keywords: Digital Collectibles; Blockchain; Intellectual Property Rights; Legal Regulations

1. Analysis of NFT Digital Collectibles Concept

1.1 Concept of NFT Digital Collectibles

NFT (Non-Fungible Token) refers to a kind of non-fungible circulation certificate based on blockchain technology. The concept of NFT is broad, including but not limited to images, videos, artworks, audios, etc. As the latest application of blockchain, NFT is considered to have indivisibility, uniqueness, and tradability, and can mark assets in the virtual world. It is regarded as a digital property certificate registered on the blockchain. Users can associate images, videos, audios, and other types of digital files through minting, turning easily replicable goods into unique NFT works, and digital collectibles are one form of expression. [1]The concept of digital collectibles in China is introduced from foreign NFT, but it differs slightly from other countries. NFT in other countries is based on public chains, open to

everyone, and anyone can participate, read data, and send transactions. It focuses more on financial attributes. On the contrary, most of China's digital collectibles are based on consortium chains, regulated by the government, and focus more on digital and collectible attributes.[2]

1.2 Characteristics of NFT Digital Collectibles

NFT digital collectibles have uniqueness and non-replaceability. As non-fungible tokens, they have unique digital identifiers, transaction records, and other information that cannot be copied or changed, compared to fungible tokens like Bitcoin. The digital identifier of a digital collectible becomes the carrier for determining the ownership of digital works, proving their originality and reflecting their scarcity. Digital collectibles use blockchain technology to identify specific digital works, and each digital collectible maps to a unique serial number on a specific blockchain. [3]NFT digital collectibles represent digital assets, which can be digital artworks, videos, images, music, virtual world items, etc. NFT digital collectibles give these digital assets unique value. Another significant feature of NFT digital collectibles is their traceability. Through blockchain technology, all transactions and changes of NFT digital collectibles are recorded on the blockchain, forming an immutable record. Specifically, each NFT has a unique blockchain address, and related information such as creators, traders, transaction time, location, and price are recorded on it, making it possible to trace the origin and circulation process of NFT digital collectibles.

2. Current Situation of NFT Digital Collectible Transactions in China

2.1 Operation Models of Current NFT Digital Collectible Trading Platforms

When discussing the operation models of NFT digital collectible trading platforms, it is

necessary to recognize that these platforms constitute a complex ecosystem. They are not only a collection of technologies but also a convergence point of creativity and value. Their data relies on the blockchain, which is tamper-proof and unique. The architecture of these platforms is usually based on this feature, providing a new way for the issuance, trading, and ownership verification of digital artworks. In this model, creators or copyright owners mint their digital works into unique NFTs through smart contracts, which not only endows the works with uniqueness but also records the creation and circulation history of the works on the blockchain. [4]Subsequently, these NFT works are placed on trading platforms for consumers to browse, purchase, or trade. From the perspective of issuing entities, NFT digital collectible trading platforms can be divided into two categories: issuance platforms operated by digital collectible rights holders and third-party trading service platforms.[5]

However, this operation model is not without flaws. Currently, one of the main challenges faced by NFT digital collectible trading platforms is copyright protection. Since anyone can create NFTs, there are a large number of unauthorized copies or infringements of original works in the market. In addition, although the blockchain records the circulation history of NFTs, it cannot prove the originality or copyright ownership of the digital works represented by NFTs. This raises a question: how to ensure that the NFT works traded on the platform do not infringe on the intellectual property rights of others. To address this issue, some platforms have started to adopt stricter review measures to examine the uploaded works for copyright. Despite this, this approach still faces challenges such as scalability and differences in international copyright laws. In addition, some platforms have tried to use royalty mechanisms, where the original authors can receive a certain percentage of royalties each time the works change hands. This approach has incentivized creators to some extent but also faces difficulties in implementation and inconsistencies in the application of laws and regulations in cross-border transactions. In the future, platform operators, creators, and regulatory agencies need to work together to explore more effective copyright protection strategies and regulatory paths to ensure the healthy and sustainable development of the NFT

market.

2.2 Issues in NFT Digital Collectible Trading Platforms

Despite the global NFT craze, which has provided new impetus for the trading of digital artworks and collectibles, many issues have emerged behind the vibrant market. Faced with this "on-chain" art, there are also many problems, such as fraudulent transactions, malicious account suspensions, platform shutdowns, copyright infringements, etc. The first case of infringement of the "Fat Tiger Vaccination" NFT work in China in April 2022 is a vivid example. In view of this, the development of the NFT digital collectibles industry should burst the commercial bubble, return to rationality in a timely manner, and find a precise solution for safeguarding interests from the top-level institutional level.[6]

A significant issue is the lag in market regulation. Due to the rapid development of the NFT market, the existing legal and regulatory framework has failed to adapt in a timely manner to the characteristics of this emerging field. This delay not only affects the fairness and transparency of transactions but also provides opportunities for illegal activities. Therefore, the digital collectibles market urgently needs a comprehensive legal and regulatory rule system to control its financial risks and realize its economic value, to prevent the market's development from stalling or missing opportunities due to the uncertainty and unpredictability of regulatory rules.[7] While strengthening the constraints on market entities, it also reflects respect for the market mechanism. Moreover, although blockchain technology itself has decentralized and immutable characteristics, vulnerabilities at the implementation level still exist. In practice, these technological advantages have not been fully transformed into legal copyright protection. On one hand, the decentralized nature of NFTs makes it nearly impossible to effectively monitor the spread and transaction of works once they have been minted as NFTs and listed on trading platforms, making it exceedingly difficult to track and sanction copyright infringement. On the other hand, existing NFT trading platforms focus more on technological innovation and market expansion, and less on the construction of copyright protection mechanisms, lacking necessary copyright review and dispute resolution

mechanisms. These issues include security vulnerabilities in smart contracts, platform system stability, and user privacy protection. Technical defects not only harm users' asset security but also weaken the credibility of NFTs as digital assets.

Another problem is the subjectivity in value assessment. The cultural and artistic value of digital collectibles themselves is often overshadowed by financialization, and behaviors such as "wash trading" that disrupt the order of transactions are not uncommon. These chaotic situations contain the possibility of systemic financial risks. NFTs involve legal and policy restrictions on currency exchange between various countries, especially in India and China, where cryptocurrencies are strictly monitored, and cryptocurrencies are affected by significant price fluctuations, which can easily result in significant price changes within a few weeks. [8] Additionally, since anyone can create an NFT and bind any form of digital data to it, this could lead to unauthorized works being illegally minted and sold. The irrational exuberance of the market could lead to the formation of bubbles, and once market confidence collapses, investors may face substantial economic losses. The cultural and artistic value of digital collectibles is often overshadowed by financialization, and behaviors such as "wash trading" that disrupt the order of transactions are not uncommon. These chaotic situations contain the possibility of systemic financial risks. [9] Although some platforms try to mitigate this problem through real-name authentication and intellectual property declarations, these measures are far from sufficient and fail to fundamentally cut off the circulation of illegal NFTs.

3. Exploration into the Trading Systems and Legal Regulation of Foreign NFT Digital Collectibles

3.1 Legal Status and Related Rules of Foreign NFT Digital Works

3.1.1 United States

The United States has not yet established a unified regulatory framework for NFTs, and the legal classification of NFTs faces challenges. In the United States, NFTs have three possible legal classifications: 1) If considered a commodity, they would be governed by the Commodity Exchange Act (CEA), with a focus

on prohibitions against fraud and manipulation of transactions as well as additional requirements for margin or leveraged trading; 2) If considered a security, the Securities and Exchange Commission (SEC) would actively regulate them, with the SEC already expanding its crypto assets division and making NFTs an enforcement focus; 3) If considered virtual currency, they would be regulated by the Bank Secrecy Act (BSA) and the Financial Crimes Enforcement Network (FinCEN), especially because the cross-border transfer nature of NFTs increases the risk of money laundering, and related trading platforms would also be regulated.[10]

3.1.2 European Union

The European Union does not appear to have specific legislation for NFTs but is trying to incorporate NFTs into the realm of virtual property regulation. Virtual asset activities have been very active in the European region in recent years. Compared to a "go-it-alone" regulatory approach, the EU places great emphasis on forming a unified virtual asset regulatory provision. On April 20, 2023, the European Supervisory Authorities (ESAs) passed the "Regulation on Crypto-Asset Markets" (MiCA). Once implemented, MiCA will have direct legal effect on the EU member states and will apply to anyone and institutions within the EU providing crypto asset services or issuing crypto assets. Article 3 of the MiCA draft defines "crypto-assets" as "a digital representation of value or rights which may be transferred and stored electronically, using distributed ledger technology or similar technology," and according to the specific purpose, classifies them into three types, namely (1) asset-referenced tokens, (2) e-money tokens, and (3) other crypto-assets not covered by existing EU law, such as utility tokens.

3.2 Implications for China's NFT Digital Collectible Trading System Design

3.2.1 Clarify the legal status of NFTs.

Referencing the practices of the US and Europe, China needs to clearly define the legal status of NFTs. Given the multiple attributes of NFTs, they could be seen as commodities, securities, or virtual currencies, and different classifications will determine the applicable legal framework. Therefore, China could consider establishing a multi-dimensional legal framework to accommodate the complexity and diversity of

NFTs. For the attribute definition of NFT digital collectibles, it is not necessary to incorporate them into the existing framework. Establishing a new system is more conducive to guiding the healthy development of new era products.

3.2.2 Strengthen cross-border cooperation and regulation to build a unified regulatory framework

Drawing on the experience of the US and EU, especially regarding the potential money laundering risks brought by NFT cross-border transactions, China needs to strengthen international cooperation, share information with other countries, and jointly develop regulatory standards. In addition, considering the global nature of the NFT market, cross-border regulatory cooperation is crucial for preventing and combating money laundering, terrorist financing, and other activities. Referencing the EU's MiCA regulations, China should consider establishing a unified regulatory framework to regulate the NFT market, ensuring market transparency and fairness. This framework should cover all aspects of NFT issuance, trading, and transfer, clarifying the rights and obligations of all parties, while setting reasonable market access and regulatory requirements.

3.2.3 Strengthen compliance responsibilities of market entities, focusing on technology development and innovation protection

Based on the attitude of the US SEC towards NFTs as an enforcement focus, China should also strengthen the compliance responsibilities of market entities, ensuring that they do not engage in fraudulent or manipulative activities in transactions. For service providers offering NFT trading platforms, their responsibilities and obligations in KYC (Know Your Customer) and AML (Anti-Money Laundering) should be clarified. While ensuring market safety and effective regulation, China's regulatory framework should also focus on the development and protection of technology and innovation. Encourage technological advancements to improve the transparency and efficiency of NFT transactions, while protecting the rights of creators and consumers.

3.3 Building Copyright Protection Strategies for NFT Digital Collectibles

3.3.1 Platforms to establish a comprehensive copyright identification mechanism

Given the many issues of on-chain infringement

that have arisen on digital collectible trading platforms, it is crucial to propose technical and managerial measures to increase the responsibility of platform operators fundamentally to limit these problems. From the perspective of platform liability, due to the unique nature of digital collectibles, platform operators must fulfill the responsibilities of general network service providers and also establish and perfect an intellectual property review mechanism to examine the copyright of digital collectibles traded on the platform. Unauthorized minting of NFTs without permission from the "off-chain" copyright holder constitutes infringement. In the first case of NFT work infringement, "Fat Tiger Getting Vaccinated," the court ultimately ruled that NFT digital collectible trades are controlled by the right of information network dissemination, and the platform was found to have assisted in the infringement. Courts believe that the platform did not follow the "safe harbor principle" and did not take necessary measures, hence the platform bears responsibility for assisting infringement in this case. Therefore, it is necessary to strengthen the platform's responsibility based on the "safe harbor principle." The process of uploading digital collectibles to the blockchain lacks a review step, and platform operators should establish relevant review measures to verify the relationship between the work and the uploader, whether the uploader is the author or has authorization to upload, and reduce the risk of copyright infringement during the upload by adding review procedures.

3.3.2 Perfecting the exhaustion of distribution rights to confirm ownership

Although there has been debate over whether the principle of exhaustion of distribution rights can be applied, most scholars still support its application to digital collectibles. Firstly, some scholars oppose the requirement that distribution must involve a tangible medium. They believe that the purpose of requiring a tangible medium is to satisfy the legal effect of transferring ownership. The law does not explicitly require distribution to be tangible, and the relevant technology of digital collectibles can satisfy the legal effect of ownership transfer in transactions. NFTs can serve as a practical approach to the operation of artists' continuing rights, allowing artists to set the percentage of resale royalty collected. This can be enforced through smart

contracts, and the blockchain technology used for NFT artworks is transparent and traceable, allowing purchasers to be clearly aware of the royalty settings. Thus, the application of NFT technology can eliminate the predicament of infringement during the sale of digital collectibles and reduce the risk of repeated copying after sale, potentially altering the original basis for the application of copyright laws. [11] Therefore, the application of the exhaustion of distribution rights should not be judged solely by the physical or digital nature of the medium. Secondly, applying the principle of exhaustion of distribution rights can help reduce the risk of piracy and balance the interests of copyright holders and consumers, making its application necessary. Lastly, several conditions need to be met to support the application of this principle: first, the sale and distribution must occur online, and only the copyright holder or an authorized person can transact the work. Second, the transaction does not result in the appearance of copies of the subject matter. Third, the number of holders of copies of the work does not increase after the transaction. [12] Clearly, digital collectibles meet these conditions and should, therefore, be applicable to the principle of exhaustion of distribution rights in judicial practice.

3.3.3 Strategy design for pursuing infringement liability

The Civil Code protects the property interests obtained from NFTs, which are attached to network virtual property. Firstly, network service operators, based on the sales contract with network users, need to provide network services for the NFTs purchased to ensure users' control after purchase. Secondly, if network service operators fail to provide network support after the purchase of NFTs, this aligns with the provisions related to tort liability and sales contracts in the Civil Code. Lastly, in judicial practice, the determination of network virtual property infringement liability has become increasingly mature. As part of network virtual property, NFTs can also receive corresponding protection when infringed. In the classification of liability types, tort liability includes the return of virtual property, restoration to the original state, and compensation for tort damages. As a kind of virtual property legally protected, when NFTs are acquired by unscrupulous elements through technological means, it is impossible to demand the return of the NFTs through the

application of the right to claim the return of the original item. According to Article 1176 of the Tort Liability section of the Civil Code: "When tortious acts endanger the personal or property safety of others, the victim has the right to request the tortfeasor to assume the tort liability of stopping the infringement, removing the obstruction, eliminating the danger, etc." Although this provision does not detail the tort liability for the return of property, the phrase "stopping the infringement, removing the obstruction, eliminating the danger, etc." does not strictly limit the forms of tort liability to these three specific types but can derive the right to claim the return.

4. Research Conclusion

The purpose of this study is to deeply explore the legal issues in NFT digital collection trading, and on this basis, put forward the copyright protection strategy and legal regulation path. By analyzing the current development status of the NFT market, we reveal a number of potential legal risks and challenges, including but not limited to ownership recognition, copyright attribution, transaction transparency, and market regulation.

To solve these problems, this paper puts forward a series of innovative strategies and suggestions. We believe that it is essential to build a comprehensive copyright protection system for NFT digital collections. Such a system should include clear copyright ownership rules, effective copyright registration mechanisms, and convenient ways to protect copyright rights. At the same time, we emphasize the importance of government supervision in this process, and suggest that government departments should actively participate in the formulation and implementation of NFT market norms to ensure the legality and fairness of transactions.

In addition, we explored the possibility of using blockchain's own characteristics to enhance copyright protection. In terms of legal regulation path, it is suggested that legislators should pay attention to the development trend of international law, learn from advanced experience, and form a set of legal system that ADAPTS to the characteristics of digital economy. This requires not only the revision and improvement of existing laws, but also the introduction of new legal concepts and principles to adapt to the particularities of NFT digital collection trading.

To sum up, the legal issues in the field of NFT digital collection trading are a multi-dimensional and complex issue. Through this study, we not only identify the existing problems and challenges, but also put forward a series of practical solutions and suggestions. These results have important theoretical and practical value for promoting the high-quality development of our digital economy, and also provide a solid foundation for subsequent research. In the future, with the continuous progress of technology and the increasingly mature market, the copyright protection strategy and legal regulation path of NFT digital collections will be further deepened and improved.

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