

Analysis of Network Virtual Property based on the Theory of Property Rights

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Abstract

Although the new Civil Law has put the protection of network virtual property on the legal level, it has not yet further clarified the relevant concepts and the scope of protection, and there are still problems such as difficult evidence, difficult value assessment and imperfect redress mechanism in practice. Based on the property law, this paper puts forward corresponding improvement suggestions to effectively protect the legitimate rights and interests of network users and operators, and to create a fair, just, green and healthy network environment.

Keywords

Network Virtual Property; Theory of Property Rights; Infringement Remedies.

1. Introduction

With the rapid development of the Internet era, the online world has become an indispensable part of people's daily lives. However, network virtual property, as a type of digital property, still faces some challenges in terms of its protection status and future prospects, despite the fact that it was initially protected by the Civil Law. This paper aims to explore the protection status of network virtual property and the establishment of relevant concepts, in order to provide suggestions for the protection of network virtual property in the future..

2. Overview of Network Virtual Property based on the Theory of Property Rights

2.1. Concept and Characteristics of Network Virtual Property

Although Article 127 of the Chinese Civil Code provides legal protection for network virtual property, there is still no clear definition or scope of protection in this regard. At present, there is no consensus on the definition of virtual property in academia, but it can be interpreted as a type of digital asset that exists only in cyberspace, has no physical form, and has characteristics such as transaction, circulation, digitisation and value storage. The value of network virtual property depends on market demand and user recognition, and the value of scarce or valuable virtual items and currencies may far exceed that of ordinary virtual property. Therefore, network virtual property refers to all digital resources that depend on cyberspace, have value and use value, and can generate some form of property interest for the rights holders, including in-game currencies and virtual equipment, virtual currencies, platform online stores, various social network accounts, network traffic, data resources, and so on..

2.2. Comparative Observation: Theory of Property Rights and Other Theories

In practice, the court's decision in network virtual property cases mainly concerns the nature of virtual property rights. At present, there is still controversy as to whether network users have property rights in virtual property.[2] In this case, most judges tend to define the property rights of virtual property as belonging to the category of property rights, while a minority believe that it belongs to the category of creditor's rights. The theory of property rights holds

that virtual property is essentially a thing and should be attributed to the object of property rights. In contrast, the creditor's theory views virtual property as a voucher for contractual rights and obligations between network users and network operators. However, creditor's rights theory focuses only on virtual property as a voucher for creditor's rights and neglects the full protection of the legitimate rights and interests of network users. In contrast, the theory of property rights considers virtual property as an independent and transferable property right, assigns it to the object of property rights, and distinguishes between the circulation and transaction services of virtual property, thus laying a solid foundation for the inheritance and disposal of virtual property as an inheritance.

3. Facing Challenges: Challenges to the Protection of Virtual Property in the Internet Era

3.1. Difficulty in Evidence Collection for Internet Users

The burden of proof in cases involving virtual property is based on the principle of "the burden of proof is on the claimant". However, virtual property is a virtual entity that relies on the Internet or computers and has inherent security risks, such as hacking and data loss, which increase the risks and difficulties of collecting evidence for virtual property. In reality, Internet users have difficulty proving game data, ownership, transaction records, etc. through traditional means of evidence collection. In addition, Internet users face challenges in providing detailed evidence and information, as well as submitting appeal materials, making it difficult to protect their rights and interests. In addition, in the virtual world, virtual property transactions are often anonymous, making it difficult to confirm the identities and real information of the parties involved and increasing the difficulty of collecting evidence.

3.2. Difficulty in Evaluating Property Value

Virtual property differs from general property in that its value often depends on personal subjective desires and market demand, making its value highly uncertain. At the same time, the market fluctuations of virtual property are also extremely volatile, making it difficult to predict changes in its value. For example, in the game *Fantasy Westward Journey*, a "level-less" piece of equipment can be sold for millions of dollars with a little gambling and luck. In *Swordsmen of the Jade Empire III*, some limited-time, limited-purchase items fluctuate in price from 280 to 688 at the time of purchase, but after scalpers speculate, some red-haired items have risen to tens of thousands, with their value increasing hundreds of times. The value of virtual items can therefore depend on factors such as rarity, uniqueness and functionality, making it difficult to objectively and fairly assess the specific value of virtual property.

3.3. Imperfect Infringement Relief Mechanisms

At present, the redress system for virtual property infringement is relatively incomplete, lacking specialised and efficient mediation, arbitration and judicial institutions. In terms of compensation for moral damages, if certain memorabilia with personal significance is permanently lost or damaged due to infringement, the injured party can sue in court to obtain appropriate compensation for moral damages. Some Internet users regard certain in-game items as their spiritual support or as commemorative gifts between partners, family or friends. However, the loss of these virtual items may also cause certain emotional damage to the cyber user. At present, there are no specific regulations for these memorabilia with personal significance, nor have they been included in the scope of compensation for moral damages, which further fails to protect the legitimate rights and interests of Internet users.

4. Prospects for Network Virtual Property

4.1. Improving the Evidentiary System for Network Virtual Property

In response to the characteristics and transaction patterns of network virtual property, it is necessary to clarify which evidence can be used as valid evidence to prove a case, such as transaction records, screenshots of virtual items, and transaction history. At the same time, standards for obtaining, preserving, and presenting evidence should be established. However, the "he who claims must prove" principle is clearly more favourable to network operators and less favourable to network users. Therefore, network users should be allowed to prove that their virtual property has actually been damaged. Network operators should also be required to assist network users and the court in investigating and gathering evidence, and to provide specific material to prove that they did not act intentionally or with gross negligence in causing harm to network users. Due to the continuous technological updates and iterations in the network industry, the negligence of network operators may lead to infringements by third parties. In such cases, network operators should be jointly and severally liable with the third party.

4.2. Establishing a Valuation System for Network Virtual Property

The establishment of a network virtual property evaluation centre can recruit professional personnel with relevant expertise and rich experience to collect different types of virtual property, apply different evaluation methods and indicators, and timely understand the transaction rules, usage, market demand and other related information of virtual property. This will make it possible to comprehensively evaluate the value of various types of network virtual property, such as virtual currency and virtual items, based on the actual financial investments made by network users, market trading prices and the direct and indirect losses suffered by network virtual property owners, in order to determine the approximate amount of compensation. The establishment of such a centre will effectively save judicial resources, reduce the burden on judicial institutions, and reasonably protect the legitimate rights and interests of network users.

4.3. Improving the Infringement Relief System for Network Virtual Property

In order to improve the infringement remedy system for network virtual property, a special arbitration institution can be established by employing professional network technology experts with certain legal knowledge to provide more professional and efficient services to assist network users and network operators in resolving related disputes. At the same time, it should be confirmed that network virtual property has corresponding personal interests. If a network user's virtual property is recognised as having personal symbolic significance, its permanent loss or damage due to infringement will cause serious psychological harm to the individual. If the management and operation of network operators are improper, resulting in the permanent loss or infringement of network users' virtual property, causing serious mental anguish and great suffering, the network operator or infringing third party may be required to bear liability for compensation for mental damage.

5. Conclusion

The protection of virtual assets in the online world requires the joint efforts of individuals, enterprises, relevant departments and society as a whole to promote its healthy and orderly development. In the process of protecting virtual assets, it is necessary not only to strengthen supervision and legal protection, improve the evidence dilemma, establish a value evaluation system, and improve the infringement redress system, but also to promote the rational use of virtual assets and their protection measures, and enhance the awareness and understanding of

network users. At the same time, with the continuous development of the Internet, the protection of virtual assets will become more complex and stringent. Therefore, we must continuously adopt new measures to adapt to the new situation of the rapid development of technology in the information age.

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