The Research on the Rule Identification of Criminal Cases of Infringement of Game Virtual Property

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Abstract: In the academic circle, the identification of infringement of game virtual property mainly focuses on the identification of the nature and value of game virtual property itself. The standard that is about conviction and sentencing of infringement of virtual property is confused in the application of criminal law. Specifically, there are disputes over the legal attributes of network virtual property, the rules of crime identification are not threedimensional, and the value identification standards of network virtual property are not uniform. Therefore, the judgments of similar cases are in conflict with each other and even the results of different judgments in the same case are different. This paper has adopted a multi-dimensional evaluation and analysis of the infringement of virtual property, comprehensively using behavioral means, technical methods to identify, according to the nature of the act, the severity of the crime and other ways to evaluate. This paper analyzes the dilemma of rule identification in the judicial practice of infringement of virtual property of games, and classifies the means of infringement, the purpose of infringement, the circulation of virtual property and the way of acquisition. The author conducts further research and analysis on the infringement of game virtual property, and provides a more comprehensive and three-dimensional thinking direction for the judgment of such cases in judicial practice to improve the efficiency and fairness of judicial practice.

Keywords: virtual property, data, property crime, cybercrime, computer crime

1. Introduction

With the development of the internet, crimes related to virtual property in online games have emerged rapidly. As the foundation for player experience and a means of profit for gaming platforms, virtual property in online games has become a legal interest that deserves attention and protection under criminal law. In 2017, Article 127 of the General Principles of the Civil Law of the People's Republic of China stipulated data and virtual property protection for the first time. In 2020, the Civil Code of the People's Republic of China confirmed virtual property in online games. To some extent, this is a

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response to social concerns about the protection of virtual property in online games. However, the issue of how to regulate crimes related to virtual property in online games and the related sentencing issues are controversial topics in both the criminal law theory and judicial practice. At its root, it is reflected in two aspects. Firstly, the judgment rules for crimes related to infringement of virtual game property are not comprehensive. The theoretical circle and judicial practice in China focus too much on the definition of the nature of virtual property, while neglecting other aspects of the crime. The theory of "property crime" or "theft theory" believes that stealing virtual property through theft mainly targets the property rights and interests of the virtual property owner, so it should be considered as theft [1]. Scholars who hold the "computer crime theory" believe that virtual property such as equipment and currency in online games is essentially data in the computer information system. If the perpetrator steals such virtual property without the consent or authorization of the game player or network operator, it constitutes the crime of illegally obtaining computer information system data [2]. Secondly, the sentencing rules are not consistent. Due to the instability of the value of virtual property, there is a considerable controversy over how to determine the amount of the crime. There are four ways of determination in judicial practice: calculation based on the sales price of the website's public relations department of the network operator, calculation based on the price agreed by the user with the off-site trader, calculation based on the purchase price of the agent, and calculation based on the amount of stolen goods [3]. It can be seen that there is no uniform sentencing standard. This article will first analyze the difficulties of rule recognition in judicial practice, then explore the specific reasons for these difficulties, and finally propose solutions.

2. Difficulties in Rule Recognition for Crimes Related to Virtual Property in Online Games in Judicial Practice

2.1. Lack of Comprehensive Judgment Rules

In the recognition process of crimes related to virtual property in online games, judicial authorities usually only focus on the issue of the nature of virtual property as the object of the crime, which is too narrow. Generally speaking, if virtual property in online games has both the characteristics of property and data, it should be regulated by specific criminal charges under other chapters in accordance with Article 287 of the Criminal Law, rather than only being regulated by the charge of theft. The "property crime theory" or "theft theory" holds that stealing virtual property is mainly aimed at the property rights of the owner of the virtual property, and therefore, it should be charged with theft. However, scholars who hold the "computer crime theory" believe that virtual property in online games, such as equipment and currency, is essentially data in the computer information system [4]. If the perpetrator steals such virtual property without the consent or authorization of the game player or network operator, it constitutes the crime of illegally obtaining computer information system data. The different criminal behaviors should be judged differently as they harm different legal interests. Theft is a property crime, while illegally obtaining computer information system data is a crime that impairs social management order. However, in practice, this issue has received very little attention. Due to the lack of comprehensive judgment rules, it is easy to cause the problem of "different judgments for the same case" in judicial practice. For example, in the above-mentioned cases, the situations were similar, but the judgments were not the same. Therefore, judicial authorities should evaluate and analyze crimes related to virtual property in online games from multiple perspectives, such as the nature of the criminal act, the means of the criminal act, and the severity of the crime.

2.2. Lack of Unified Sentencing Standards

Through searching cases on the Judgment Documents Network, it was found that the recognition of the amount of the criminal act is based on different standards, such as the illegal profit price, the pricing of the network game operator without a unified standard for the valuation of virtual property in online games. For example, in the case with the number (2018) Hun 10 Xing Zhong Zi No. 384, the perpetrator illegally profited 27,063 yuan from the stolen virtual property, which was valued at 29,500 yuan by the price authentication center. In contrast, in the case with the number (2021) Chuan 0521 Xing Chu Zi No. 297, the defendants obtained illegal gains of more than 37,000 yuan by stealing and selling online game accounts, which was based on the illegal gains. The amount of the criminal act was determined by different standards in different cases. If there is no unified valuation standard for virtual property in online games, it will be difficult to accurately determine the amount of the criminal act, which will not only affect the sentencing but also affect the conviction in some cases. Accurately and reasonably recognizing the value of virtual property in online games is crucial for judicial justice.

3. Specific Causes of the Dilemma

3.1. The Controversy of Legal Nature of Virtual Property and the Unclear Relationship Between Charges

The legal nature of online virtual property, whether it is public or private property or electronic data, has not been conclusively determined in judicial practice. Different courts have different judgment criteria, and even within the same region, there are different opinions within the judicial system. For example, the prosecution may consider virtual property to be public or private property, whereas the court may hold the opposite view. The unclear definition of the legal nature of virtual property directly impacts the final judgment. The theoretical classifications in academia have not provided good assistance to judicial practice, leading to ongoing disputes regarding the legal nature of virtual property. According to the nature of virtual property, academia has generated three different judgments for acts involving the infringement of virtual game property. Firstly, virtual game property is regarded as actual property or a property interest, and is protected accordingly, that is, it is classified as a property crime (property theory) [5]. Secondly, it is considered as data without real property significance, and is protected accordingly, that is, it is classified as a computer crime (non-property theory) [6]. Thirdly, there is an opinion that game source code is an intellectual achievement of game developers, and virtual game property is the expected benefit obtained from the operation of game programs. Therefore, acts of infringement should be classified as crimes against copyright (intellectual property theory) [7]. Just like the similar crimes in the above two cases, the crime object of the two cases is online game equipment. The charges should be the same, but the court's verdict is completely different. Academia also has different views on the relationship between property crimes and computer crimes. The first view holds that the two crimes constitute imaginary competition, and that acts of infringement of virtual property not only harm the property interests of virtual property itself, but also damage the security of computer information systems [8]. The second view believes that the two crimes are mutually exclusive, and that computer crimes are a special law for property crimes and should be given priority when dealing with acts of infringement of virtual property [9]. The third view regards the two crimes as related crimes. In this view, the invasion and control of computer information systems are regarded as criminal means, and the possession of virtual property is the criminal purpose [10].

3.2. Many Types of Virtual Property and Various Ways to Obtain Them

Virtual property can be divided into three categories: valuable accounts, game equipment, and virtual currency, each with its own characteristics. Furthermore, even within the same category, there may be differences between virtual properties. For example, valuable QQ numbers cannot be equated with game accounts that have special meanings. Similarly, there may be differences between skins and weapons in games, and differences between different types of virtual currencies. The value of virtual property may also change as the game progresses. Network operators may use the "scarcity marketing" technique in economics to control virtual property in the network, artificially creating a scarcity phenomenon for "limited edition", "limited time", "commemorative edition", and other virtual properties. If network operators open up supply for a certain type of virtual property, then its scarcity will disappear, and its price will inevitably drop, even becoming worthless, and eventually abandoned by network users and eliminated by the market. Moreover, the methods of obtaining virtual property vary. As is well known, virtual property can be obtained by purchasing, investing, and upgrading. For those obtained by purchasing, they may be obtained from merchants or from other players. Virtual property can not only be traded, gifted, and exchanged among network users and between network operators and network users according to certain rules, but also the transferred virtual property can be freely used in the new account, without any depreciation in value caused by the previous user's use. The persistence of the use value of virtual property provides more sufficient reasons for network users to transfer virtual property. As for those obtained by investment, whether the appreciation part is recognized as a loss is still in question. As for those obtained by upgrading, how to convert the time and energy invested by players into value recognition remains a question. Thus, the issue of recognizing the amount of virtual property is not only a technical problem but also involves differences in science and law.

4. Rules of Conviction

4.1. Classification According to Criminal Methods

Due to the fact that property crimes do not have any specific requirements for means of conduct, while computer crimes require the perpetrator to use technical means, this paper firstly divides virtual property crimes into two categories including those that use non-computer technical means to infringe on game virtual property, and those that use computer technology means to infringe on game virtual property.

In the use of non-computer-related mean the perpetrator often illegally acquires game account passwords from third party sources. Since no computer-related technical means were used, this type of crime still meets the elements of property crimes. Although the crime of illegally obtaining computer information system data belongs to the crime of disturbing the social order and is a crime against public interests, the use of this method often infringes upon the personal interests of the victim. Therefore, crimes committed using this method should be classified as property crimes.

Behavior that uses special technical means is more likely to be recognized as the crime of illegally obtaining computer information system data. This is because it meets the constitutive elements of the objective aspect of the crime, which is the use of "other technical means." Depending on the specific identity of the victim, different discussions can be held.

Those who control the game platform's background program through computer technical means and modify data should be considered computer crimes. Those who steal player account passwords through technical means should be classified as property crimes [11]. Although computer technology is used, the main infringement is on the interests of the victim, which meets the constitutive elements of a property crime.

This classification is intended to focus on the differences in the legal interests protected by computer crimes and property crimes. The output of virtual property from game platforms is low-cost, nonlinear, and infinite, essentially the result of running, modifying, copying, and storing data in the background system. Under this condition, the cost of obtaining the same amount of virtual property for game players is much higher, not only in terms of time and energy but also in terms of the real currency paid. Therefore, the main legal interest that is infringed upon when violating the virtual property provided by the game platform is the security of the computer information system, followed by the property interests associated with the virtual property. The reason is that the cost of maintaining the game system balance and stability for the game platform is far higher than the expected benefits obtained from the sale of the infringed virtual property.

4.2. Classification by Specific Criminal Behavior

By classifying according to specific behavior patterns, the act of infringing on virtual game property can be divided into two types including non-profit and profit-driven. In this article, profit refers only to benefits that can be measured in monetary value, such as obtaining property or financial benefits.

One type of behavior is when a player intentionally destroys virtual property in a game account without the intention of gaining profit. This behavior refers to the malicious destruction of data containing virtual property in an account for revenge or other reasons. In some games where equipment and item trading systems are not enabled, some players, unable to transfer and cash out equipment from other accounts they have acquired, will completely destroy the equipment and items in those accounts. With the increasing popularity of live streaming platforms in recent years, some streamers, in order to gain attention and traffic, pretend to be account leveling services and let their live stream audience scan and log in to their accounts, and then maliciously destroy the virtual property in those accounts. This behavior is not aimed at illegal possession and does not have a profit motive, but rather stems from a desire to retaliate against the account owner.

Another type of behavior is when someone illegally takes over a game account for entertainment purposes. This behavior is also achieved by modifying the account login permissions to take over the account, rendering the original account owner unable to log in, but the perpetrator uses the account for their own entertainment after acquiring it. Compared to reselling the account, this behavior is not used as a means of long-term profit, so it is often not a large-scale crime and is not very common.

Both of the above behaviors are usually carried out by individuals and are typically sporadic, with a relatively small social harm. Although the perpetrator did not gain any financial benefit, if it causes losses to other players' corresponding legal interests, it should be recognized as a property crime, and the two types of situations mentioned above can generally be recognized as the crimes of willful destruction of property and theft.

It should also be noted that there is another situation where someone uses hacks or system vulnerabilities to obtain virtual property for non-profit consumption. This behavior is generally not considered a crime and is typically handled by game platforms through account bans.

Another type of behavior is for the purpose of profit. This type of behavior is the most common way of infringing virtual property in the gaming industry and should be discussed in depth. The main behavior of infringing virtual property in game accounts for the purpose of profit is to resell accounts. By modifying the login permissions of an account, such as the initial password, verification email, and bound mobile phone number, the original owner of the account cannot log in again, and the account is then sold. Because it is highly repeatable, compared with other types of behavior, in practice, the same perpetrator often commits this type of crime multiple times. Therefore, this type of crime has a tendency to become industrialized in recent years.

Another way of behavior is to transfer the virtual property from the original account. It means logging into someone else's game account and transferring some of the game equipment or items to

another account or cashing them out. In some games, due to the existence of a secondary password, the criminals cannot transfer all the virtual property in the account, only a portion of the equipment and items with a certain value. Therefore, the behavior of transferring some virtual property from an account is very common in cases of infringement of virtual property.

These two behaviors are classified as property crimes and computer-related crimes based on whether they infringe on the information data of the game platform. Obtaining and logging into someone else's account may have an impact on the information data of the game platform. If the damage is caused to the information data of the game platform during the process of obtaining and logging into someone else's account, and the circumstances are serious, it should meet the constitutive elements of computer-related crimes, while if there is no damage caused, it is classified as property crimes.

5. Rules of Sentencing

As mentioned above, the game platform can modify the background data to produce an unlimited number of virtual properties at low cost. If the perpetrator controls the game platform system through technical means, he can also obtain virtual property at will by modifying the data. which not only has low cost, fast acquisition speed, but also has no limit to obtain virtual property. In practice, the perpetrator can generally obtain a large amount of virtual property. If it is determined according to the actual consideration of virtual property and real currency, it is easy to cause excessive sentencing, so only the method of determining the amount of profit of the perpetrator can be adopted.

For the case where the owner of the virtual property is a player, if the perpetrator obtains the game virtual property within the account by obtaining the player's game account, it not only infringes the player's property interests, but also the amount of virtual property in the game account is limited. The perpetrator cannot obtain too much virtual property, and the amount is generally not particularly huge. According to the nature of virtual property, the author can also identify it according to the consideration of real currency and virtual property and the amount of profit made according to criminal behavior.

The classification standard adopted in this paper is to divide virtual property according to the user's acquisition method and liquidity. It is needless to say that the level of circulation has a decisive influence on whether the virtual property has the possibility of taking the real currency as the consideration. The main reason why the classification is based on the user's acquisition method is that it helps us to judge the severity of the harm and the degree of subjective malice of the infringement of different types of virtual property, prevent the sentencing from being too light and too heavy, and adapt the crime and punishment.

Due to the different situations of many virtual properties, the author first discusses the problem that the player does not need to pay the price, and can only obtain the virtual property through the game process. This kind of virtual property mainly refers to the virtual items and currency that can be obtained by completing the task in the game, which can be obtained through the 'practice level' as the author usually understands, paying a certain amount of game time and implementing a certain behavior.

This kind of virtual property is most closely related to the game itself, and the market liquidity is poor. It is difficult to experience or trade from the game itself. According to the existing judicial decisions, it is difficult to determine the value of infringement of virtual property, usually with reference to the offender's illegal profit to determine the amount of virtual property involved. Scholars who hold this view mainly consider the uncertainty of the value of virtual property [12].

However, this identification method is often used in practice to identify different amounts of virtual property. It should be noted that for virtual property with realistic consideration standards, the perpetrator may sell the virtual property for quick cash and low price after illegally obtaining the

virtual property. If the amount of illegal profit is determined, it is easy to lead to the problem that the penalty is obviously too light, because the interests of the players infringed by this behavior are far greater than the profits of the criminals. In this case, the amount of the criminal's profit cannot determine the severity of the crime. Therefore, this identification method should be applied to such virtual property. First of all, there is no relatively stable and reasonable consideration standard for this kind of virtual property, and it is not convenient to establish a unified standard for all kinds of games and according to the difficulty of obtaining specific game virtual property [13].

Secondly, it is difficult for players to prove how much time and energy they have paid to obtain the virtual property, and it is more difficult to determine how much time and energy they have paid are measured by the amount of property. Players pay the game time and energy nature cannot be understood as labor, just a process of experience game behavior [4]. In practice, it is not possible to quantify the game time and energy paid by the players into a specific amount. As the so-called 'law ignores trivial matters', this kind of quick-cut treatment is simple and efficient, saves judicial costs, and conforms to the principle of proportionality.

It should be noted that for virtual property with realistic consideration standard, the perpetrator may sell it for quick cash at a low price after illegally obtaining such virtual property. If the amount of illegal profit is determined, it is easy to lead to the problem that the sentencing is obviously too light. Because the interests of the players infringed by this kind of behavior are far greater than the profits of the criminals. In this case, the amount of profits of the criminals does not determine the severity of the crime. Therefore, it is necessary to adopt another way, that is, to determine the price according to reality [14]. For example, virtual goods, currency and other services that can be purchased directly by recharging a certain amount. The fundamental difference from the previous category is that it has the possibility of players attaching property interests, and the amount of virtual property can be reasonably determined by the official exchange standard. This kind of virtual property is more common, and the demand for players is also large. Although the circulation of this kind of virtual property is relatively poor due to the fact that accounts cannot be directly traded, it is usually traded in association with game accounts. However, since players can acquire this type of virtual property by paying real money to the game platform, there is a relatively stable price. Therefore, there is a high possibility of measuring the amount of damage caused by infringing on this type of virtual property. This kind of virtual property depends on the account, which is not meaningful from the game itself. It is only used to meet the game experience of the player. However, the author finds that the behavior of the player to purchase the virtual property by paying the real currency has something in common with the payment currency enjoyment service, which is to obtain a certain spiritual satisfaction. Meanwhile, the service in reality belongs to the property interests of the specific reality, but for such virtual property, the illegal acquisition of such virtual property also makes the player pay the real currency in vain and fail to enjoy the due service value [12]. Therefore, the amount of crime should be determined by the actual amount paid by the player, that is, the actual consideration of the virtual property.

A kind of virtual property that needs special attention is that can only be obtained with a certain probability for payment. It is a virtual item, currency and service that must be recharged with a certain amount of money to obtain, and has market liquidity, and the price is affected by supply and demand [15]. In the early days, there were fewer leisure and entertainment page tours, and with the continuous improvement of the level of Internet entertainment, this virtual property has also sprung up and developed rapidly. For example, in the famous client game 'Counter-terrorism Elite: Global Offensive', players buy equipment boxes and keys by recharging real money, and open the boxes to randomly obtain weapons jewelry. Unlike other virtual property, this kind of weapon jewelry can be traded quickly through the platform, and the platform can even update the reference transaction price in real time according to the supply and demand relationship. Although this kind of virtual property

is only circulated on the game platform, according to the author's experience, many non-game players have used it to invest. Therefore, it has become a special property. When determining the amount, it is not possible to simply apply the consideration paid by the player to determine the amount. It should be based on the official reference price given by the platform, because the price paid by each player to obtain the same virtual property is different, and a unified standard is needed to determine.

In addition, in view of the fact that criminals only transfer some virtual assets in the account, the amount involved is determined according to the total value of the account or the number of transferred properties. The author believes that the specific amount involved in such cases should be identified as the total value of the virtual property in the account. Due to the fact that in such cases, the account and the virtual property inside the account that are infringed belong to the players rather than the game platform, the "occupancy theory" often adopted in property crimes should be referenced. Therefore, not only should the amount of property actually controlled by the perpetrator be inferred based on logic, life experience, rules, and other factors, but also whether this act has extinguished the original possession, that is, the actual possession of the virtual property in the account by the original account player should be considered. When infringing some virtual property in the game account, the entire game account is often under the actual control of the perpetrator. For the player, this behavior affects his right to effectively control and use the virtual property and eliminates his original possession. Therefore, the amount involved should be recognized as the total value of the virtual property in the account.

6. Conclusion

Due to the rise of the Internet and the lag of some legal provisions, there is a vague status quo in the judicial practice of game virtual property identification. In judicial practice, there have been conflicting judgments in similar cases and even different judgments in the same case.

The first step to solve this problem is to analyse the boundaries and classification of different behaviours of obtaining game virtual property. Only by clearly identifying the differences between different behaviours can the judges standardize the conviction and sentencing. For the identification of violations of virtual property, it should be multi-dimensional evaluation and analysis, comprehensive use of behavioural means, technical methods to identify, in accordance with the nature of the implementation of the behaviour, the severity of the crime and other ways to evaluate, to achieve crime and punishment to adapt. Through a more comprehensive analysis of the infringement of game virtual property in cybercrime, China can improve the efficiency and fairness of judicial practice, promote the criminal punishment system and legislative convergence, so as to adapt to the development and change of virtual property situation. In the future, the criminal legislation related to virtual property in China should scientifically and rigorously define relevant concepts and improve the crime and punishment system of infringement of virtual property.

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Proceedings of the 4th International Conference on Educational Innovation and Philosophical Inquiries DOI: 10.54254/2753-7048/15/20231050

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