Discussion on legal issues of inheritance of virtual property in network

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Abstract: In the network era, we enjoy efficiency and convenience. People in this vast virtual world create a huge amount of economic value and spiritual value. How to exist in the network space of wealth to our descendants in a stable handover is an important issue of this era. China's Civil Code reserves space for the object of the network virtual property to be incorporated into the inheritance system. Starting from the inheritability of network virtual property, this paper defines the legal attributes of network virtual property by examining foreign legislation, real cases and the main viewpoints of scholars, and then divides network virtual property into "carrier type" and "content type" according to the type classification. The former in principle belongs to the network operator, the latter in principle belongs to the user. At the same time, the value evaluation of network virtual property is also a difficult problem, and the network information department should take the lead to develop a value reference system of general significance. And the network virtual property has strong personal attributes, so its inheritance should fully respect the personal will of the user, and take some humanized ways to balance the relationship between property inheritance and privacy protection. Through the discussion of these important issues, we hope to provide some suggestions for the perfection of the legal system of the inheritance of virtual property.

Keywords: Network virtual property; Succession; Legal attribute; Attribution; Legal issues

1. Introduction

As an encyclopedia of civic life, the Civil Code demonstrates the care of citizens from cradle to grave. With the continuous development of China's digital economy, virtual property, such as QQ, wechat public accounts, game equipment and even Taobao stores, has become an integral part of citizens' private property. It has been several decades since the advent of the Internet era, and the problem of virtual property inheritance is becoming more and more unavoidable. However, the legal provisions on the inheritance of network virtual property in the succession compilation of the Civil Code are not perfect. To perfect the relevant legal system of the inheritance of virtual property, we must first solve the problems of the legal nature, right ownership and value evaluation of virtual property.

The Civil Code defines the scope of "heritage" in the way of generalization plus exclusion, which lays a foundation for the inclusion of network virtual property in the scope of legal heritage in the future. As the basic law of the market economy, one of the aims of the Civil Code is to ensure the efficiency and transaction security of the market economy. Therefore, perfecting the system of online virtual property inheritance at the legal level can not only improve the current legal system, but also guarantee the efficiency and safety of property transfer, so that civil subjects can inherit according to law, and the judicial organs can handle disputes according to law. In the face of the above cases, there will be no twists and turns in the inheritance of the parties, so that the parties who are already in grief will increase their troubles, and they can also better reflect the humanistic care of the socialist legal system.

2. Inheritability of network virtual property inheritance

Since the Internet entered China, the Internet industry has been developing continuously. There are hundreds of millions of netizens in our country, and almost everyone owns network virtual property, which must be inherited by people. The following is the main argument that the inheritance of network virtual property is inheritable. The following focuses on the legitimacy and property of network virtual property.
2.1. Legality of network virtual property

The legality of network virtual property is the primary condition for the inheritable property object, and the legality of network virtual property can be judged from the way and content of the acquisition[1]. The acquisition of network virtual property is often based on the legal basis, and the legal basis is the service agreement signed between users and network operators or the transfer agreement reached between users. Naturally, these agreements are applicable to the constituent elements of the civil legal behavior effect of the Civil Code, as with other civil legal behaviors, these agreements are legal as long as they meet the corresponding effective elements. In reality, in some types of network virtual property such as online shops, game equipment, etc., users have devoted a lot of time to develop, and naturally and legally have the corresponding rights. In fact, the discussion of some attributes of network virtual property can be solved by the existing legal rules through legal interpretation. If a new legal system is set up, it will only increase the difficulty of legislation.

2.2. The property of network virtual property

There is no doubt that network virtual property has property attributes. Professor Qian Mingxing once pointed out: since network virtual property can be traded, it shows that it has both market value and exchange value, so it is certain that network virtual property has property attributes [2]. The sale of microblog domain name for millions of dollars or the sale of game equipment among players, these circulation behaviors that can be evaluated by money all reflect the property attributes of network virtual property. Property is an important support for free people. In order to better protect personal freedom, in the 19th century, American judges were willing to protect valuable interests as property, that is, any valuable interests can be the object of legal protection [3]. With the development of society, the public's understanding of value has long been not limited to the material value brought by physical objects. Whether the public's simple concept or the legislator can accept the electronic information stored in the electromagnetic disk can also bring value to people.

2.3. The Necessity of Inheritance of Network Virtual Property

It is self-evident that network virtual property has value. Its exchange value is the externalization of its value. The measurement of the value of virtual property is similar to that of general property. For example, the value of network virtual property is often related to the amount of money paid by users, the time invested and the value-added services. The value of network virtual property also requires it to be an inheritable object. In addition to the value of property, network virtual property often has deeper user personal specificity, which makes virtual property with spiritual value, such as the photo album in QQ space and the email exchange in the mailbox. Therefore, in addition to the economic value, the inheritance of its spiritual value is also very necessary.

For example, after the owner's painstaking operation, the Taobao online store has reached the crown store level, which makes the online store have greater profitability. It can be seen that the owner has invested a lot of energy and financial resources. After the owner dies due to overwork, due to the user agreement of Taobao and the lack of relevant legal support, his family can not inherit the online store he operated according to law, which is unacceptable to the public. Nowadays, although the relevant rules on the inheritance and transfer of shops have been established by the network operators such as Taobao and Tmall, the network virtual property has a wide denotation, and there are still many types of virtual property inheritance problems that have not been solved. More importantly, there are no corresponding regulations in the current law, so the network virtual property inheritance is like a castle in the air, which is dim and can not give people a sense of security and predictability.

Therefore, it is of great significance to construct a sound legal system for the inheritance of network virtual property and promote the practice of the inheritance of network virtual property.

3. Domestic cases and international experience of network virtual property inheritance

Below select some domestic related practice judgment and some foreign countries adopted legislative examples, in order to help clear network virtual property inheritance related issues.
3.1. Domestic cases

3.1.1. Case 1

Mr. Ai is a senior Taobao shop owner, but because of high pressure work led to an early death, his family wants to inherit his Taobao shop. Unfortunately, at that time, Taobao did not have the relevant regulations and precedents of online shop inheritance, and the law did not have relevant operable regulations. After the event was exposed, it caused heated discussions among the private and academic circles. Obviously, this case is contrary to people's feelings. As a typical example of users investing in the Internet economy, Taobao shop has devoted a lot of effort to build it into a crown shop, and it must be inherited in both love and reason. Fortunately, now Taobao, Tmall and other platforms have the relevant operation regulations of online shop inheritance and transfer, which conforms to the development of society to a certain extent. But the network virtual property is really a wide variety, and will continue to produce new types, the citizens' property rights in this respect cannot be fully protected. As for the problem reflected in this case is the unclear inheritability of network virtual property, as well as the confusion of its legal attribute and ownership relationship. The latter two problems are often accompanied by each other and closely related.

3.1.2. Case 2

In the judicial practice of the legal attribute of network virtual property in reality, the vast majority of the courts judged that virtual property belongs to the property, such as the bitcoin dispute case of Wu Chufei v. Zhao Shilian and Beijing Lekuoda Network Technology Co., Ltd., the Guangzhou Internet Court believed that bitcoin, as a specific virtual commodity, although it does not have the legal status of money and can not be circulated in the market. But as a network virtual property, it has economic value and can be exclusively dominated, so it is identified as a special type of property. Therefore, the network virtual property is identified as a property on the basis of a large number of judicial cases. This kind of qualification is more likely to eliminate the disputes in the academic circle to the greatest extent, and the reference property protection rules can better protect the network virtual property. There is no dispute that network virtual property can be used as the object of inheritance, but after all, network virtual property belongs to new things, and the legal attributes of the legal, what kind of protection methods to take and even the ownership of the problem has not been clearly stipulated, which also causes the domestic cases on the inheritance of network virtual property to be without a basis, and also partly loses the legal predictability, causing users to worry about the virtual property inheritance that may occur in the future.

3.2. Foreign experience

It is also necessary to examine some feasible foreign legislative examples or practices for discussing the inheritance of network virtual property in China. These legislative examples and practices mainly focus on solving the legal attributes and ownership of network virtual property, which provides experience for China to improve relevant legal rules in the future.

There have been relevant cases in the United States. In 1998, the California High Court ruled that three Intel employees who left the company used the Intel email system to send critical emails to other employees, which constituted illegal invasion of Intel's movable property rights. It can be seen that the court again protected virtual property as movable property. The American court will protect the email and email system as traditional "things". The judges will address the issue by interpreting pertinent laws and broadening the applicability of existing laws in cases where no specific legislation exists. At the same time, many states in the United States have also promulgated relatively perfect legal systems for the inheritance of network virtual property, and some even give the heirs the right to control the personal social media of the decedent[4].

As for South Korea, the domestic online games are relatively developed. The popular "Cross Fire" and "QQ Racing" in China's online game market were introduced by Tencent from South Korea. According to Korean law, virtual products in online games are independent of network operators and have independent property value, which is essentially equivalent to the property of bank accounts. Therefore, Korea treats it as property right protection and confirms that the virtual property belongs to users.

In Germany, the German Media Law also provides for the inheritance of virtual property, stipulating that ten years after the death of the user, the law still protects the inheritance of the heirs who take the economic value of the network heritage as the object. In practice, it adopts the same method as a general
property for management\cite{5}.

The above selects some developed countries for the inevitable legal attributes, ownership relationship and the relationship between the inheritance of virtual property and the protection of privacy interests in the inheritance system of virtual property. The network information industry in developed countries starts earlier and is more thoughtful for the protection of individual rights of citizens, so it has reference significance for China to construct relevant legal systems.

4. The main legal problems of network virtual property inheritance

4.1. The legal attribute of network virtual property is uncertain

Although the qualitative of network virtual property does not affect the inheritability of network virtual property as a kind of property and should be protected equally with other general property, but in the specific operation, it is natural to avoid the problem of determining the legal attribute of network virtual property, and to better realize the improvement of the legal system of network virtual property inheritance, its legal attribute as the logical starting point of legal theory and system must be unified. At present, the legal attributes of network virtual property in academia mainly include "property theory", "creditor's right theory", "new property right theory" and "intellectual property theory" \cite{6}. Some scholars believe that the legal attribute of network virtual property should not be identified as "property" indiscriminately, but should be classified before the identification of virtual property, as the basis for the design of rules. Even in the legislation to maintain a prudent attitude, the protection of network virtual property is first to solve the legal interpretation\cite{7}. Although this statement has a certain operability, but in fact avoids the legal attribute of virtual property identification of this problem, in the long run is not conducive to the protection of virtual property and the improvement of the legal system. However, the author believes that it is of great benefit to classify and distinguish network virtual property before setting relevant rules. Because there are so many kinds of network virtual property and they are changing rapidly. In the past, there were such things as e-mail, online shops, game equipment, etc., and now there is the popularity of the meta universe. Classifying these network virtual properties will make the establishment of specific rules more operable and targeted.

In summary, it is difficult to unify the legal attribute of network virtual property in China, which leads to the fact that relevant rules have not been updated before the promulgation of the Civil Code. To fill this legal gap, we must first clarify the legal attribute of network virtual property.

4.2. Unclear ownership of network virtual property

A major premise for the inheritance of network virtual property is that the virtual property belongs to the decedent. However, the ownership of network virtual property has not been completely solved. Currently, there are two mainstream views, namely that network virtual property belongs to network operators and users. For example, Zhang Dongmei, an academician, believes that users only have the right to use WeChat and other account types of network virtual property, and user accounts are actually part of the space divided by network operators on the server, so network operators have ownership of this\cite{8}. And in most cases, the user and network operator signed an agreement at the beginning, confirmed the ownership of the operator's status. The latter believes that the user of the network virtual property to spend money, devote effort, and virtual property appreciation is mostly related to user behavior, so it should be attributed to the user\cite{9}. In this regard, the American scholar Stephen concurs with this perspective, asserting that although the rules of the online game are formulated by the operator, it is ultimately the player who dominates and generates their own game character. Consequently, virtual property within the online game should be attributed to and exclusively owned by the player as they have invested in it through payment and expect returns. Therefore, any arbitrary modifications to such properties by the game company are deemed unacceptable\cite{10}.

There are scholars who propose that the ownership problem should be discussed according to the different types of network virtual property. The above statement also highlights the fact that network virtual property is diverse and constantly emerging, and the typification of virtual property can be advantageous in clarifying ownership issues.

4.3. The difficulty of the evaluation of network virtual property

Since it has been clear that network virtual property can be used as the object of inheritance, and it
can also be measured by money, the evaluation of network virtual property is also very important. For the virtual property that users have no right to inherit, there is no need to evaluate it. At present, there is no complete and feasible rules and institutions for the evaluation of network virtual property. This is precisely because network virtual property usually contains a complex of economic value and spiritual value, and its virtual nature also increases the difficulty of the evaluation, such as the evaluation of photos, logs, and even online stores. These virtual properties not only contain the calculated monetary benefits, but also include the time, energy and emotions invested by users. It is obviously a complex problem to evaluate the value of virtual property.

4.4. The conflict between the inheritance of network virtual property and the right to privacy

Network virtual property is strongly personal. In reality, many users do not want their social accounts or other network virtual properties, such as logs and photos that are only visible to themselves, to be known by others, including heirs. Because of this, some people do not support the unconditional permission of heirs to inherit this part of network virtual property. In the first case of virtual property inheritance in the United States, the family of American soldier Justin was denied access to his personal email account by Yahoo after his death. Even though the family wanted to remember the deceased, Yahoo refused to provide the account on the grounds of protecting users' privacy[11]. Later, Yahoo copied Justin's emails to the family, but this action was criticized. So we have to balance the conflict between inheritance and users' privacy in inheritance.

5. Perfect the legal countermeasures for the inheritance of network virtual property

5.1. Identify the legal attributes of network virtual property

There are many theories in the academic circles for the legal attributes of network virtual property, among which the most supported theory is the property theory.

As mentioned in the above case, most of the judicial cases attribute network virtual property to the property. The property theory believes that because network virtual property can still be dominated by users or operators and has value, it can still be regarded as a special thing. If it is regarded as a new type of intellectual property, the particularity of network virtual property is exaggerated. Therefore, although network virtual property has intangible nature, it can still be protected by referring to the property protection rules, otherwise it needs to set up a new set of legal rules, which undoubtedly increases the difficulty of protection[12].

The creditor's right theory believes that whether users exercise their rights to network virtual property or network operators obtain their benefits from virtual property, they rely on the behavior of the other party based on the network service agreement, that is to say, either party's realization of rights is similar to the right of claim, which depends on the other party's intentional behavior to a certain extent and cannot be dominated exclusively[13].

There are also scholars holding the view between the property theory and the creditor's right theory, believing that there is an intermediate type of right[14]. Network virtual property has the attribute of creditor's right for users, and its right needs the behavior support of network operators, but it will produce the effect of property. For network operators, it has the attribute of property, and the operators will transfer part of the rights of network virtual property to users, and the operators can only exercise the ownership in a limited scope. The exercise method often evolves into the exercise of the right to claim income[15]. This view seems simple and clear, and it is highly operable, but there are many kinds of network virtual property, and this view is easy to cause confusion of rules.

The author agrees with the property right. It is obvious that the network virtual property also has the characteristics of possession, income, use and disposal. Today, it is untenable to negate the significance of an interest not belonging to the property by virtue of virtuality. Even if the user often needs the technical support of the operator when exercising the right, but this does not prevent the user from exercising the exclusive domination of the virtual property itself. The following viewpoint can help to understand, that is, the subject and the network operator can be directly understood by two legal relations in the succession[16]. The transfer of the network virtual property between the successor and the successor belongs to the property relationship, while the technical expenditure provided by the network operator belongs to the payment of the debt. In addition, the traditional property rights such as mortgage and pledge have a period of existence, so it is inappropriate to negate the property attribute of the network
virtual property by the term. Property is a strong civil right. Considering that the network virtual property exists in the virtual space and has a certain degree of fragility, it is also appropriate to protect it by referring to the rules of property.

5.2. Clarify the attribution of network virtual property

The author thinks that network virtual property can be divided into "carrier assets" and "content assets". As the name implies, the former is the carrier of the results created by users in the cyberspace, such as WeChat accounts, Weibo accounts and email accounts, etc.; the latter is the result of the carrier's personal creation, such as photos in the circle of friends, remarks on Weibo and emails sent and received. Accounts are mainly personal certificates obtained by users to accept relevant services from operators[17].

The carrier assets should belong to network operators, because the operation and maintenance of such assets and the services provided to users by the carrier are all developed and responsible by network operators. This practice is conducive to the maintenance of the interests of operators, so that they can recover the large amount of costs paid for the early development. At the same time, operators also give users a high degree of autonomy to control the carrier assets, so it will not harm or restrict the rights of users. As for the resultant assets, they should belong to users. For example, the daily records of life and photos uploaded by WeChat's circle of friends, even the game skins in the game, and the online courses purchased by users, these are all produced by users who invest corresponding time, energy or even money. Even if the achievement-oriented assets depend on the carrier dominated by the operator, it is obvious that users play a decisive role in the appreciation of achievement-oriented assets.

Therefore, achievement-oriented assets should be identified as attributable to users. Obviously, only achievement-oriented assets attributable to users can be used as the object of inheritance. But there are still special cases in practice, that is, the carrier-type assets similar to Taobao shops. Although the ownership belongs to the operator, considering the great cost that users invest in it, it can bring great practical benefits to users. Therefore, even if users do not enjoy ownership, they should also be included in the scope of the object of inheritance.

5.3. Improve the Network Virtual Property Value Evaluation System

In view of the wide variety of network virtual property, so the work of its typology should still be the basis of the value evaluation. For the typology of the value evaluation, it should be based on the network virtual property itself, according to its form of existence, acquisition method, use and other factors abstract several common types. For example, online stores, Internet celebrity IP, public accounts as one kind, personal photo albums, life logs as one kind, value-added services as one kind, game equipment, skin as one kind. Accordingly, they are evaluated respectively. For example, online stores should focus on the user's late investment and the profitability of the store when evaluating the value, and game equipment should consider the price given by the operator and the market supply and demand relationship among game users.

If every encounter a network virtual property inheritance case to conduct a virtual property value evaluation, it will cause a waste of resources, so a set of universal evaluation laws and regulations and the establishment of a special evaluation agency is a good way to solve this problem.

5.4. Balancing the Conflict between Inheritance of Virtual Property and Privacy

There was an organization in the United States conducted a social survey, the survey showed that 70% of people think that their communications and photos of the privacy in their death should remain private, unless agreed to be accessed. At the same time, 70% of people think that in the absence of a clear indication of how to deal with private communications, the law should pay more attention to the protection of privacy. And only less than 10% of people agree to be accessed their private communications. Throughout the practice of other countries in the world, Britain, Sweden, Finland and other countries on the network virtual property inheritance treatment fully respect the real meaning of network users, give users the freedom to set up "network will"[18]. Therefore, the author believes that the better way to balance the network virtual property inheritance and user privacy interests is to respect the autonomy of users' meaning. That is, it should be decided by the user himself in his life whether his hidden property can be inherited. If the user indicates that his certain virtual property should not be inherited or deletes the behavior of the hidden property, after his death, his heirs can not claim inheritance to the operator.
As for how to implement, this can be stipulated in the agreement between the user and the operator, and it is up to the user to decide. At the same time, in order to avoid users ignoring this clause, a pop-up can be set to remind the obligation.

The corresponding user has not clearly indicated that the inheritable hidden network virtual property should not be inherited. Operators should delete the content only after obtaining the authorization before death. Of course, there are some human-interest solutions in reality. For example, the United States set up a special website to save the virtual property of the deceased for others to remember. China's microblogging released a notice on the protection of the deceased microblogging account, and no one shall publish, delete, log in or other operations on the account. Bilibili also set the account as a memorial account after the death of an up owner. These practices are actually to freeze these accounts, which may be the best way to balance the interests of some unauthorized inherited virtual property. Of course, the author believes that this part of property can only be public or default public before death, such as the blog posts visible to all in the microblogging account, the public videos published in the Bilibili account, etc. For the content that the deceased did not set as public before death, the operator will delete it.

6. Conclusions

The author of this paper from the network virtual property inheritance, through the investigation of foreign legislation, real cases and scholars main view, mainly clear network virtual property property attributes, classification of network virtual property ownership, and then from the property attributes to explore feasible network virtual property value assessment methods, and put forward how to better balance the deceased privacy interests and inherit the virtual property of the conflict. This article through analysis, mainly clear network virtual property property attributes, and then divided the network virtual property into "carrier type" and "content type", the former principle belongs to the network operator, the latter principle belongs to the user.

In the network virtual property value assessment, according to the different characteristics of the property, the value assessment is carried out according to the classification. Moreover, the inheritance of the user to fully respect the pre-existing personal wishes, and take some humanized methods to balance the inheritance of virtual property and privacy interests protection relationship. The inheritance of network virtual property is not only the transfer of property interests, but also the continuation of the spirit of the deceased, from the property circulation and memory of the deceased two angles, for individual citizens are of great significance. The author will be the network virtual property inheritance legal issues layer by layer stripping, put forward with certain feasibility of countermeasures, try to their own still shallow knowledge for the network virtual property inheritance system to provide feasibility recommendations, also sincerely hope that the relevant rules in the legal level as soon as possible established, so that the socialist legal system with Chinese characteristics is more perfect.

References

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