



COPYRIGHT IN VIRTUAL PROPERTY: A FLAWED APPROACH TO VIRTUAL WORLD GOVERNANCE

*Ms. Palka Rishi*¹

ABSTRACT

Virtual Worlds also called as massively-multiplayer online games (MMOs) or massively-multiplayer online role-playing games (MMORPGs) are online simulated environments that mimic the real world. Much like our everyday reality, inhabitants of these worlds interact with each other and with their virtual environment, they form communities and transact in virtual objects. All in-world activities are primarily centred around advancing the user's character (avatar) through the acquisition of unique virtual objects. Statistics suggest that billions of dollars are spent globally by players in the pursuit of 'owning' virtual property to make their avatars more powerful or attractive through microtransactions or real money trade (RMT) where users 'buy' and 'sell' virtual property for real-world money. The end-user licensing agreements (EULAs) to these virtual worlds, however, mete out a different treatment to them where they are considered more as graphical objects rather than things that have

been licensed to the users. Thus, players cannot, in fact, 'own' anything in the same sense as the real world. The question, therefore, arises as to what exactly is being traded through in-game transactions. EULAs suggest that virtual objects are the intellectual property of game developers, and users buying them merely get a 'license to use' the same. The present research challenges the application of copyright law to virtual property. It argues that for virtual objects to get recognition under the copyright regime they must, at the very least qualify as a copyrightable non-literal element of the game code. However, the very nature of virtual property is such that it does not fall within the recognised parameters of the term. The research finally proposes alternatives for the protection and regulation of virtual property by recognising limited property-like interests in them which would benefit both virtual world creators and their users.

¹ Doctoral Fellow, Jindal Global Law School, Sonipat.

Keywords: Copyright, End-User Licensing Agreement, Intellectual Property, Virtual Property, Virtual Worlds.

INTRODUCTION

Virtual worlds are hypothetical spaces that exist only inside intricate computer networks. Every day, millions of people log into virtual worlds to play, socialise, and trade, generating billions of dollars as revenue. The global PC online gaming market alone was valued at USD 45.6 billion in 2021². Despite this, the realm of virtual worlds, like most of the internet, remains largely unregulated by the law. Game developers utilise rights granted to them under the intellectual property law regime to exercise control over all aspects of the worlds they create, including subject matter that is excluded from intellectual property protection. This holds particularly true in the context of virtual property, where software protection extends beyond the copyright granted in script creating virtual objects.

While virtual property can technically be described as a code, it is often treated as a commodity by virtual world developers when the same is offered for ‘sale’ via in-game microtransactions. This varied treatment of virtual objects by game developers themselves has led to ambiguity in the identification, and consequently, understanding of the subject matter itself. This, in turn, has led to improper application of intellectual property law to govern the rights and obligations of users and game developers with regard to virtual property. Identifying what constitutes virtual property, becomes important for determining the correct legal approach for its protection. With game developers making significant profits through the sale of in-game items for real-world money,³ and the increased user participation in virtual worlds has invariably led to disputes over virtual property

between users and game developers that have not yet had a satisfactory resolution.

The present research first introduces life in virtual worlds while laying out its relevance in today’s digitalized world. It thereafter goes on to identify what would constitute the virtual property, separating the game code from the visual, interactive object that exists inside the virtual world environment. Based on this identification, the paper argues that though the end-user licensing agreements overextend copyright protection to virtual property as a part of the game code, the practice is not legally and technologically sound. After establishing the insufficiency of the current legal regime for the protection of virtual property, the paper suggests alternative methods that may be adopted for effective protection of the subject matter that can benefit both the game developers and players of virtual worlds.

LIFE IN VIRTUAL WORLDS

Virtual worlds, variously called massively-multiplayer online games (MMOs) or massively-multiplayer online role-playing games (MMORPGs), are digitally simulated environments that imitate many aspects of the real world. Created through computer codes, these worlds provide a platform for millions of users across the globe to interact with each other and their digital environment in real time through a three-dimensional representation called a player character or an avatar.

Even though virtual worlds have been around for decades, the term does not have a universally accepted definition since each virtual world is unique in its way. They can, however, generally be described as “expansive, world-like, large-group environment made by humans, for humans, and which is maintained, recorded and rendered by a computer”⁴. Despite the realism (both social and economic) of virtual worlds, they are often viewed

2 J. Clement, *MMO Gaming - Statistics and Facts*, STATISTA (2021), https://www.statista.com/topics/2290/mmo-gaming/#topicHeader__wrapper (last visited Sep 5, 2022).

3 In some virtual worlds, profits from microtransactions have been high enough to enable game developers to offer the base game to users free of cost. SCOTT ROGERS, *LEVEL UP! THE GUIDE TO GREAT VIDEO GAME DESIGN* 420 (2nd ed. 2014).

4 EDWARD CASTRONOVA, *SYNTHETIC WORLDS: THE BUSINESS AND CULTURE OF ONLINE GAMES* 11 (2005).

as mere games. This is primarily because virtual worlds have their origins in the earliest forms of text-based role-playing games. However, with the advancements in technology and the development of a new meaning of ‘play’ in the context of virtual world users, they have evolved beyond being ordinary games. For instance, unlike video games, virtual worlds have no final state and thus, cannot be ‘won’ in the traditional sense of the term.⁵ In other words, while players of video games can win the overall storyline and the world created in them comes to an end once all in-game objectives are fulfilled, virtual worlds have no ending and continue to exist beyond the completion of the primary objective created by the developer. Some worlds, like *Second Life*, are unstructured and have no developer-defined objectives to fulfil, making them akin to social networking sites rather than games. Despite this, gaming terminology continues to be used in reference to activities and in context of virtual worlds. For instance, creators of virtual worlds are referred to as game developers, while their users or human inhabitants are players.

Three defining characteristics of virtual world that separate them from video games are interactivity, i.e., users across the globe can access the virtual world server from anywhere to interact with each other in real-time; physicality, i.e., virtual worlds simulate real-world physical environment on users’ computer screens, including laws of nature like gravity; and persistence, i.e., irrespective of the user’s presence or absence, the virtual world continues to exist and remembers the location and ownership of things.⁶ It is these

features and the ensuing user interactions that add a sense of realism to virtual worlds, leading to a vibrant in-game society and economy.

Everyday millions of users log into virtual worlds of their choice to play, socialize or even trade in virtual property. In May 2022 alone, it was estimated that about 1 billion people across platforms played online games.⁷ Wherever such a huge number of people congregate, the formation of communities becomes inevitable. Virtual worlds are essentially communities-of-practice.⁸ Their essence lies in the activities that users undertake together as a group. While members of a group are required to cooperate to fulfil common goals, inter-group dynamics are based on a sense of competition. Thus, both cooperation and competition become integral to virtual communities. Groups in virtual worlds may be temporary, where a small number of players may band together to carry out a minor quest or activity; or they may be more permanent in nature like a ‘guild’ where hundreds of like-minded players carry out major in-game activities against enemies or other guilds. Social networks formed in this way act as a tool for social engineering in large groups and also make a social play and strategic teamwork more efficient.⁹ For instance, guilds can evaluate and authenticate player reputations¹⁰ as per the established in-game behaviour and also punish members for asocial conduct.¹¹ Virtual worlds, as a result, become close-knit communities with their own culture and social norms.

Despite the separation of virtual worlds from the tangible, however, real-world norms do affect

- 5 Florian Schmidt, *Use Your Illusion: Immersion in Parallel Worlds*, in *SPACE TIME PLAY: COMPUTER GAMES, ARCHITECTURE AND URBANISM: THE NEXT LEVEL* 144, 146 (Friedrich von Borries, Steffen P. Walz, & Matthias Böttger eds., 2007).
- 6 EDWARD CASTRONOVA, *Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier* 6 (2001), www.cesifo.org/en/publikationen/2001/working-paper/virtual-worlds-first-hand-account-market-and-society-cyberian.
- 7 J. Clement, *Online Gaming - Statistics & Facts*, STATISTA (2022), www.statista.com/topics/1551/online-gaming/#dossierKeyfigures (last visited Jul 8, 2022).
- 8 Chee Siang Ang & Panayiotis Zaphiris, *Social Roles of Players in MMORPG Guilds*, 13 *INFORMATION, COMMUN. SOC.* 592, 594 (2010).
- 9 FRANS MÄYRÄ, *AN INTRODUCTION TO GAME STUDIES: GAMES AND CULTURE* 130 (2008).
- 10 WILLIAM SIMS BAINBRIDGE, *THE WARCRAFT CIVILIZATION: SOCIAL SCIENCE IN A VIRTUAL WORLD* (2010).
- 11 CASTRONOVA, *supra* note 6.

and form user behaviour therein and vice versa.¹² An integral part of people's everyday life that has transitioned well into virtual worlds is the concept of property. Much like the real world, gameplay, and economics in virtual worlds are based on the acquisition of in-game items or virtual property that can enhance user experience. In social worlds like *Second Life*, unique virtual items like clothes and houses help users create a better, more attractive, and ultimately more popular in-game avatar, while in-game worlds like *World of Warcraft*, better equipment like special swords or armour make the player character more powerful against their opponents, increasing their reputation on a given game server.

A steady demand for unique items enables game developers to establish a profitable in-game economy based on trade in virtual property for not only in-game currency, but also real-world money. Recent trends in user spending show an increase in real-money based transactions in virtual objects, primarily through microtransactions.¹³ For instance, in 2020 alone, players spent approximately USD 54 billion globally on additional content in virtual worlds, a number which is expected to surpass USD 74.4 billion by 2025¹⁴. Though technically, digital goods can be replicated multiple times, value in virtual objects is established by introducing artificial scarcity¹⁵ through the game code created by virtual world creators. This further adds to the realism of the digital medium.

Users of virtual worlds closely identify with their avatars and see them as an extension of their being or self,¹⁶ with the result that virtual property in these worlds becomes more real in satisfying the users' material desires than tangible real-world goods.¹⁷ Thus, users tend to perceive objects in possession of their avatars as belonging to them. In recent years, this sense of ownership felt by the players over their virtual property has been exhibited in many ways, from disputes over in-game items being brought to court for resolution¹⁸ to players committing murder due to lack of remedy in case of theft of their digital property.¹⁹ Disputes have also arisen between users and developers over the right of ownership over in-game items.²⁰ Considering the increase in real-world value associated with virtual items, it is inevitable that disputes of such nature shall only increase. From a legal perspective, therefore, it becomes necessary to identify exactly what constitutes 'virtual property' and by extension, determine how it can best be regulated under the laws of the real world.

IDENTIFYING VIRTUAL PROPERTY

As mentioned earlier, the acquisition and transfer of virtual property form an essential part of the virtual world economy. In-game ownership in virtual objects can ordinarily be gained through standard gameplay where the player avatar interacts with the virtual environment to find hidden loot

12 NICK YEE, *THE PROTEUS PARADOX: HOW ONLINE GAMES AND VIRTUAL WORLDS CHANGE US - AND HOW THEY DON'T* 211 (2014).

13 Microtransactions can be described as transfer of virtual objects or in-game currency by the game developer to players in exchange for small amounts of real-world money. It is interesting to note here that despite the increase in purchase of in-game items, it is yet unclear what rights, if any, the users can possibly claim in them under the present legal regime.

14 J. Clement, *Global In-Game Consumer Spending Market Value 2020-2025*, STATISTA (2021), <https://www.statista.com/statistics/558952/in-game-consumer-spending-worldwide/> (last visited Apr 2, 2022).

15 Relevance of artificial scarcity is discussed further in the next part.

16 CASTRONOVA, *supra* note 6; Vili Lehdonvirta, *A History of the Digitalization of Consumer Culture*, in *DIGITAL VIRTUAL CONSUMPTION* 11 (Mike Molesworth & Janice Denegri-Knott eds., 2012).

17 *Id.*

18 *Li Hongchen v. Beijing Arctic Ice Technology Development Co.*, Chaoyang District Beijing Second Intermediate People's Court (2003).

19 "Game Theft" Led to Fatal Attack, , BBC NEWS (2005), <http://news.bbc.co.uk/2/hi/technology/4397159.stm> (last visited Oct 15, 2021).

20 *Bragg v. Linden Research, Inc.*, 487 F. Supp. 2d 593.

scattered across the world or upon plundering the body of a defeated enemy. A few worlds enable users to create their virtual property.²¹ However, such acquisition requires players to spend substantial time ‘grinding’, i.e., performing repetitive tasks for many hours.²² Some players, to avoid grinding for a mere chance to get an object of their choice to advance in the game, instead prefer to buy them by spending real-world money.²³ This has given game developers a chance to monetize on virtual worlds beyond their initial sale or subscription. Despite the increase in user spending on virtual objects,²⁴ there is no legal recognition of users’ interests in the purchase of these intangibles. The primary reason for the lack of legal clarity in the matter is the absence of proper identification of the subject matter itself. This part shall, therefore, attempt to identify what constitutes virtual property with the purpose of applying the most suitable regime to regulate it.

Virtual Property as a Code

Virtual objects are scripts that exist in the larger framework of the game code that creates the virtual world. Despite this, they are analogous to real-world objects and ostensibly perform the same functions as their real-world counterparts. Thus, a house in *Second Life* would be used as a shelter by its owner, even though the player character does not need protection from the elements. The code not only creates virtual property but also determines what it would look like and how it will interact with players and other in-game objects. Unlike ordinary software, virtual property shares three legally relevant features with tangible

property, viz., rivalrousness, persistence, and interconnectivity.²⁵ Thus, the in-game owner of a virtual property can exclude others from using it without their consent (rivalrousness), the property continues to exist even when the owner is absent from the virtual world (persistence), and though it remains in possession of one person, it can be experienced by other users (interconnectivity).²⁶

Rivalrousness in virtual property is reinforced by virtual world developers when they create and establish ‘ownership’ in the same by virtue of the game code. The game code, in its turn, determines ownership based on who has possession of the object at any given time. However, though the code can identify the current owner of the object based on who possesses the same, it does not track the past ownership of individual objects.²⁷ This is so since the code does not establish the rules relating to the valid transfer of objects from one player to another.²⁸

The rivalrousness of the object, coupled with the inability of the code to embed and consequently track the actual ownership of the object, further brings it closer to tangible property. Thus, though the virtual property is created through code, it acts in a manner very similar to real-world property, effectively making it something more than mere software, but less tangible property. The ambiguous status of virtual assets has, however, not prevented the creation of real-world economic value in them and their consequent commodification.

Virtual Property as a Commodity

Monetization in virtual worlds is done by adopting strategies that would enable developers

21 For instance, both *Second Life* and *Minecraft* give users freedom to create anything they desire, while *World of Warcraft* only permits crafting of particular type of items.

22 While users who want a particular item may have to hunt innumerable enemies to get a mere chance at acquiring an item, a player who wishes to craft an item would have to spend just as many hours to successfully hunt for raw materials to craft the item of their choice.

23 YEE, *supra* note 12 at 80-81, 93.

24 Clement, *supra* note 14.

25 Joshua A. T. Fairfield, *Virtual Property*, 85 BOST. UNIV. LAW REV. 1047 (2005).

26 *Id.*

27 RICHARD A. BARTLE, *DESIGNING VIRTUAL WORLDS* (2003).

28 *Id.*

to generate additional revenue and maximize profit margins while keeping their user base engaged in ever-evolving gameplay. By far the most popular and profitable scheme for in-game monetization has taken the form of microtransactions, which entails the sale of virtual property (individually or in bundles) for a small amount of real-world money. These transactions take place within the framework of the virtual world between the game developer and the players. Virtual world creators also permit users to transact directly with each other through primary real-money trade (RMT) via in-game ‘marketplaces’ where they may buy and sell the virtual property after the seller agrees to pay a ‘commission’ on all sales to the game developer.²⁹ In both cases, value in the virtual commodity is established through the introduction of scarcity in virtual worlds.

Artificial scarcity is embedded in virtual worlds by game developers to create variations in value associated with in-game items. By creating a tier or rarity system for virtual objects, virtual world creators not only limit the quantity of a particular type of item available in a virtual world but also determines how easily it may be acquired by a user.³⁰ Based on the level of scarcity, objects in virtual worlds are categorized as common, uncommon, rare, or unique, though their terminology might differ from platform to platform. By limiting the availability of items and thus varying the real-world value associated with them, virtual property gets further commodified in a sense very similar to the real world where resources are naturally limited.

Virtual Property and the End-User Licensing Agreement

Users’ entry into virtual worlds is conditioned on their acceptance of the end-user licensing agreement (EULA). EULA is an agreement between the virtual world developer and the player that defines the rights and obligations of each towards the other. Since all expected behaviour cannot be encoded in the virtual world software itself, EULAs become the predominant tool for game developers to govern virtual worlds due to the ease with which they can be modified and their cost-effectiveness.³¹ Among other things, EULAs establish ownership in the virtual property and to some extent also determine what would constitute a virtual item. However, due to a lack of consensus about what virtual property is, each game developer treats the subject matter differently making the identification of the exact nature of virtual property even more complicated. For instance, while inside virtual worlds both game developers and users treat virtual items as ‘things’ that players can buy, own and use, the EULA to most virtual worlds, implicitly or explicitly, either treats them as part of the overall virtual world content or as independent graphical objects while claiming exclusive rights over them in favour of the game developer by virtue of copyright granted to them in the source code.

Blizzard Entertainment’s EULA, while avoiding defining the term, claims Blizzard’s ownership over all virtual items in their online games, including “Virtual goods, such as digital cards, currency, potions, weapons, armor, wearable items, skins, sprays, pets, mounts,

29 Though primary RMT marketplaces may allow players to sell their products for premium in-game currency, the game developer may not always permit them to cash out of the virtual economy. For instance, in Blizzard’s *Diablo Immortal*, though users may trade with each other for platinum, that cannot convert this premium currency into real-world cash. This is in contrast with the policy adopted by Linden Labs in *Second Life* where users may not only buy Linden Dollars (LD) for real-world money, but they can also exchange for actual currency based on the exchange rate established by the Linden Exchange.

30 This is done by allocating drop-rates to all virtual items, which determines the probability of a player acquiring an artefact on performing a particular function. Rarer items, therefore, would have a low drop rate, while common items would have a higher one.

31 Andrew Jankowich, *EULAw: The Complex Web of Corporate Rule-Making in Virtual Worlds*, 8 TULANE J. TECHNOL. INTELLECT. PROP. 1, 11 (2006).

etc.”³² It is pertinent to note here that in the same clause, Blizzard claims ownership over visual components, narrations, and characters associated with their games separately from virtual content.³³ Furthermore, the clause also claims ownership over the computer code, including applets and source code as a separate category.³⁴ Thus, Blizzard implicitly treats virtual items as something separate from both a computer code and a digital image or artwork, while categorizing virtual items as ‘goods’. On the other hand, MindArk’s EULA for its MMO *Entropia Universe* defines the term virtual items as ‘fictional in-world graphical objects with a predefined set of parameters’ while claiming all intellectual and other proprietary rights in them.³⁵ The provision then goes on to link the term with corresponding real-world objects like real estate, houses, armour, money, etc.³⁶ Thus, though both Blizzard and MindArk claim ownership over virtual items or property, they both have adopted a different approach to treating the subject matter. Despite this, both companies’ proprietary interests in virtual objects stem from the intellectual property rights granted in the game code itself. It is, however, submitted that such a claim over virtual objects amounts to overextension of intellectual property rights to the subject matter that is beyond the protection of intellectual property law.

INEFFECTIVENESS OF COPYRIGHT LAW IN VIRTUAL WORLDS

As discussed in the previous part, virtual property is a complex concept particularly since it is a code that behaves like a real-world tangible object within a virtual world. This, coupled with the fact that virtual world EULAs do not employ even remotely similar definitions to identify the subject matter creates uncertainty in applying relevant legal principles for the settlement of potential disputes. Virtual worlds are primarily governed through a combined application of intellectual property and contract law. While intellectual property, particularly copyright, lies at the centre of legal protection granted to the virtual world’s game code, contract law, in the form of the EULA is used to expand corporate control over user rights therein.³⁷ Such expansion of intellectual property rights to the content in virtual worlds is essentially based on economic motivations,³⁸ particularly in the case of those worlds that are heavily dependent on user-generated content. Economic motivations of virtual world developers lead them to draft EULAs that invariably contain clauses that over-extend their intellectual property interests in virtual items in a manner that ends up curtailing user interests in their acquired virtual property.³⁹

Copyrightability of the game code itself, as a literary work, does not face any hurdle. However, claims of copyright protection in virtual property pose unique legal questions. Computer software ordinarily may be said to have literal and non-

32 Section 2(A)(i)(4), Blizzard End User License Agreement, BLIZZARD (2022), www.blizzard.com/en-us/legal/fba4d00fc7e4-4883-b8b9-1b4500a402ea/blizzard-end-user-license-agreement (last visited Sep 30, 2022).

33 *Id* at Section. 2(A)(i)(1), (2) and (3).

34 *Id* at Section. 2(A)(v).

35 Section. 2, Entropia Universe End-User Licensing Agreement, ENTROPIA UNIVERSE (2018), <https://account.entropiauniverse.com/legal/eula.xml> (Last visited Sep 30, 2022).

36 *Id*.

37 Angela Adrian, *Intellectual property or Intangible Chattel?*, 1 J. INT. COMM. LAW TECHNOL. 52, 53 (2006).and subsequent rights are governed by license agreements called End User License Agreements (EULAs)

38 Cory R. Ondrejka, *Living on the Edge: Digital Worlds Which Embrace the Real World*, SSRN ELECTRON. J. 6 (2004), <https://ssrn.com/abstract=555661>.

39 Such curtailment may even extend to waiver of protections otherwise granted under the law, for instance the doctrine of exhaustion. LAWRENCE LESSIG, CODE: VERSION 2.0 (2006).

literal aspects. While the written code constitutes the literal aspect of the software, the non-literal aspect goes beyond the code to include things like the user interface that is generated during the execution of the code.⁴⁰

Though the law related to the recognition of the literal aspect of computer programs is more or less settled, it is yet unclear whether and to what extent non-literal aspects of a code may be protected.⁴¹ This holds particularly true in the case of virtual property where the legal distinction has not yet been made between the script creating a virtual object (as the literal aspect) and the visual in-game object created on the execution of the said code (as the non-literal aspect). Indian jurisprudence relating to the copyrightability of non-literal aspects of software is non-existent. However, Federal Courts in the USA have, over time, developed four approaches for determining if a non-literal aspect of a code can be protected under copyright law. Though the four approaches are distinct, they all centre around the idea-expression dichotomy.⁴²

The first approach was introduced in *Whelan Associates, Inc. v. Jaslow Dental Laboratory, Inc.*⁴³ by the Third Circuit Court of Appeals in 1986 where it recognised a substantial similarity in the ‘structure, sequence and organisation’ of a computer program. Later, in 1990, the Federal District Court of Massachusetts developed the three-part test while determining the copyrightability of user interface (UI) as a non-literal aspect of a code in *Lotus Development Corp. v. Paperback Software International*⁴⁴. The steps in this test required first, the determination of what would constitute the idea in the software

and distinguish it from the expression. The next step involved the application of the doctrine of merger and *scène à faire* to determine whether the expression would be protectable under copyright law. The last step involved determining substantial similarity between the protected software and the allegedly infringing work at a quantum scale but with a qualitative approach. In 1992, the Ninth Circuit Court in *Brown Bag Software v. Symantec Corp.*⁴⁵ adopted a similar approach in the form of the Extrinsic-Intrinsic test but did not lay down detailed steps for proper identification of copyrightable non-literal elements.⁴⁶ Finally, also in 1992, the Second Circuit Court in *Computer Associates International, Inc. v. Altai, Inc.*⁴⁷ adopted the Abstraction-Filtration-Comparison test, a similar but more rigorous approach compared to the previous two cases. The court first approached the subject matter in a manner similar to reverse engineering to isolate each level of abstraction contained in the structure of the program. The next step required the application of traditional principles of copyright law, like the doctrine of merger, *scène à faire*, and elements of the public domain to filter out the non-copyrightable elements of the program. Lastly, after filtering out the non-protectable elements, the court would enquire into substantial similarity with the core protectable subject matter to determine infringement. Since the approaches mentioned above are based on the application of universally accepted principles of copyright law, viz., the idea-expression dichotomy, doctrine of merger, etc, any or a combination of them can be adopted to identify the non-literal aspects of computer software in the Indian context as well.

40 Julian Velasco, *The Copyrightability of Nonliteral Elements of Computer Programs*, 94 COLUMBIA LAW REV. 242 (1994).

41 *Id.*

42 For a detailed analysis of all four approaches, see *Id.*

43 797 F.2d 1222.

44 740 F. Supp. 37

45 960 F.2d 1465

46 The first phase of the approach, the ‘extrinsic test’ requires an objective analysis of the expression of the software, while in the second phase of ‘intrinsic test’ subjective approach is applied to determine substantial similarities in protected elements determined in the first phase.

47 982 F.2d 693

As mentioned earlier, in-game virtual objects, though created by software, not only behave like real-world tangible property but are also treated as commodities or things, thus, making them the non-literal aspect of the game code. However, the unique nature of virtual property itself poses a hurdle in applying any of these tests to determine their copyrightability. Virtual property, unlike a UI or structure of software, is accompanied by audio-visual elements and influenced by the game mechanics.⁴⁸ Furthermore, as pointed out earlier, virtual items are treated as graphical objects as well as commodities in the EULAs. In other words, they are representations of ‘things’ that are capable of being interacted with to perform certain functions attributed to them by the code. Thus, though virtual property can be considered a non-literal aspect of the game code, they do not behave in the same way as the elements in the previously mentioned cases.

In *MDY Industries, LLC v. Blizzard Entertainment, Inc.*⁴⁹ the Ninth Circuit Court, while determining whether MDY had violated Blizzard’s copyright in the *World of Warcraft* game client software, described the individual non-literal elements of the software as ‘visual and audible components of the game’. It is pertinent to note here that each of the aforementioned visual and audible components enjoys independent copyright protection as artistic and musical works. However, once introduced in the virtual environment, they no longer function as mere audio-visual works. For instance, once introduced in the virtual world, armour is not a mere picture that the player can view, rather it is a piece of clothing that they can either equip, store away in their inventory, or sell. In other words, since virtual properties are ‘objects’ in virtual worlds, and not just software structures or UI on a computer screen, the application of tests laid out for ordinary computer programs becomes ineffective. Hence, since the virtual property does

not fall within the traditional understanding of the non-literal element of software, nor does it qualify as a mere audio or visual component of the game code, its copyrightability under the current laws becomes doubtful. However, keeping in mind the economic significance of in-game sales as well as user expectations associated with an acquired virtual property, it becomes necessary to identify alternatives for the regulation of virtual property as well as protect the interests of both users and developers.

SUGGESTIONS FOR AN ALTERNATIVE APPROACH TO REGULATING VIRTUAL PROPERTY

The inadequacy of the current copyright regime to effectively regulate virtual property, coupled with the ambiguity of EULAs in defining and therefore protecting players’ rights in virtual property has led to an imbalance of rights between virtual world users and developers. Some scholars⁵⁰ suggest that one of the first steps towards achieving this balance would be to expand the concept of private property to virtual objects with suitable changes. Property system in virtual worlds already functions on familiar ideas of exclusive ownership, the ability to transfer the property, and a currency system to facilitate such trade.⁵¹ For instance, in *Second Life*, users are free to buy not only the virtual equivalent of moveable objects like cars, chairs, and clothes but also virtual real estate for an in-game currency called Linden Dollars. Thus, even in the absence of legal clarity with respect to the nature and meaning of virtual property and user rights therein as well as contrary claims in the EULAs, in practice both users and developers treat them as tradeable objects.

Apart from the in-game treatment of virtual property, there have been cases where courts have recognized the real-world relevance of virtual

48 The game mechanics determine how the object will behave in the virtual environment.

49 629 F.3d 928

50 For example, Fairfield, *supra* note 25; F. Gregory Lastowka & Dan Hunter, *The Laws of the Virtual Worlds*, 92 CALIF. LAW REV. 1 (2004).

51 *Id.*

items as a form of property. In *Li Hongchen v. Beijing Arctic Ice Technology Development Co.*⁵² the plaintiff's account in the MMO *Red Moon* was hacked and all his virtual property was 'stolen'. Li sued the game developer for failing to protect his possessions and demanded the restoration of all his virtual belongings, claiming that the time and effort he had spent in acquiring all in-game items entitled him to claim ownership of the said objects. The court while recognizing the user's interests in virtual property (despite the EULA) directed the game developer to restore all stolen objects. The present case, however, though significant, fails to answer all questions relating to the repercussions of granting property rights to virtual objects.

Recognizing virtual property at par with real-world tangible property can lead to a host of complications in other areas of law. For instance, questions of inheritance and taxation of virtual items might come into play that may have no satisfactory resolution in the context of virtual worlds. A more logical move, therefore, might be to instead recognize situational limited rights in virtual objects (particularly those acquired using real-world money) in favour of users while reserving residuary interests in favour of game developers. This would not only help in preventing corporations from over-exerting IP rights in subject matter that ought not to be covered under copyright law, but it can also make the application of consumer protection laws more relevant since these laws are centered around the sale of either goods or services.

A grant of limited property-like rights in virtual objects will help elevate the status of players from being mere 'users' of virtual worlds to 'consumers' of virtual objects. Consequently, the application of the law based on consumer interests will not only preserve the rights of players in the digital objects, but it will also not interfere with their day-to-day play activities in virtual worlds. At the same time, such a regime will also not unnecessarily limit the interests of game developers, while holding them responsible for any unfair loss suffered by the users.

52 *Supra* note 18.

CONCLUSION

While the idea of recognizing rights in intangibles is not something new and discussions surrounding the recognition and protection of virtual property have been going on since the early 2000s, there is still no clarity regarding their status in the legal realm. With the increasing digitalization of everyday life, where e-books and online streaming have replaced physical books and CD-ROMs, determining the place of digital items in the legal arena has become urgent. With the sheer number of people participating in virtual spaces, it is inevitable that disputes between users and developers or between users are bound to increase. Determining the possible answers to such disputes would first require identifying and thereby dispelling the ambiguity surrounding virtual property itself. The complex position of virtual property, as a code that has property-like characteristics, is made even more complicated due to monetization models centred around their sale and purchase, leading to the commodification of these digital items. This in turn has made it difficult to accurately apply real-world laws to them. Currently, virtual worlds, and virtual property, are governed under a mixed regime of contract and intellectual property law. While copyright law is inadequate in protecting virtual property as a whole, the EULAs are essentially one-sided contracts that create further ambiguity in identifying the subject matter.

Effective regulation of virtual property would require balancing the rights of both users of virtual worlds and their creators. Any imbalance between them would not only be unjust but would also dilute the user experience therein as well as the effective governance of virtual worlds by the developers. Such a balance, however, may not be reached by merely extending real-world property laws to virtual items since such an extension, apart from being impractical, would create a rippling effect on other areas of the law. In such a case, questions relating to succession, taxation, and liability may become too complicated for the virtual world creators to handle, leading to a lack

of interest in further developing and maintaining this form of interactive entertainment media. A more suitable approach for protection would be to grant a right that would lie somewhere between property rights and a mere right to use the virtual

property. This would help not only establish a balanced governance structure in virtual worlds but also enable the application of relevant legal provisions to virtual property.