

IPR CHALLENGES IN THE METAVERSE

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INTRODUCTION

The metaverse is a constant, interconnected, and highly immersive world where users are supposed to interact, play and work. It is viewed as a replacement for mobile broadband. As a consequence of technological improvements, our actual lives and our virtual lives are becoming more and more intertwined. The pinnacle of this mixing will be in the metaverse, where most people will be involved in conducting virtual lives. The services and quality of the Metaverse have come from the advancement of virtual vision, smart glasses, distributed ledger technology, and cryptocurrency. The legal challenges, particularly for owners of trademarks, copyright, or patents, are receiving more attention as businesses get ready for a future with and in the Metaverse. Lack of knowledge of intellectual property rights in a virtual setting can put sellers, buyers, and IP rights holders in danger. What therefore should or may IP right holders do? This article provides information on the problems with patents, copyrights, and trademarks in the Metaverse.

WHAT IS THE METAVERSE?

A new world is gradually emerging from the metaverse. For some, it largely consists of an online collection of virtual worlds. Others, on the other hand, concentrate on the potential role those particular technologies, such as the blockchain, virtual reality (VR), or augmented reality (AR), may play in gaining access to these worlds. The Metaverse is best characterized as the three-dimensional evolution of the current internet. According to current forecasts, the Metaverse is anticipated to be made up of a large number of synchronous and interconnected virtual platforms that are continuously run and may be accessed by users through their avatars. Because customers will be able to readily access the Metaverse through various devices and virtual material will be exhibited in real life, the lines between the digital and physical worlds will probably become hazier. Some people think that we already live in one or more metaverses.

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The metaverse is a digital setting where characters controlled by people or machines can use virtual versions of things like furniture, weapons, and cars, all of which might be marked with trademarks or other works that are copyright protected. The logical conclusion is that since IP rules deal with the intangible elements (*corpus mysticum*) of an item, whether physical or virtual, developers of the metaverse will need to respect those rights just as they would in the real world. As a result, a specific right holder will have the ability to seek the monetization of his or her IP rights in the metaverse, for example, when connected to a digital avatar's virtual wallet or jacket. However, it seems that the migration to the Metaverse outlined above will still take years, and the concept of the Metaverse is constantly evolving. This makes it challenging to predict the changes and difficulties that will occur, particularly in terms of legal problems, but there are indications of what is to come.¹

Virtual experiences in a virtual setting, enhancement, robotics, democratization, mobilization, autonomously, and real-time action are some of the core characteristics of the Metaverse. Several businesses and techniques must work together harmoniously in order to weave together independent virtual reality experiences employing graphical, acoustic, and multitouch technology, as well as commercial and open-source solutions. This combination is expected to give rise to novel kinds of interaction, content creation, friendliness, and commercialization in developing digital contexts. As a result of the interest in creating the metaverse on the part of information technology behemoths like Meta, Google, and Microsoft, people have begun to spend a lot on digital assets to ease their transition into this virtual environment.

METaverse AND IP LINKAGE

The three principles or fundamental elements of the Metaverse are presence, coherence, and uniformity. While appearance refers to a sensation of incarnation or being present with others in a simulated space, compatibility in this context refers to the ability to move freely and effortlessly among the digital products as well as inside the digital area. Since avatars are utilised in electronic meetings and virtual goods like bitcoins are commonplace now, interoperability is not a new thought. The Metaverse's system and service portability is made possible by the final pillar, homogeneity.

Intellectual property rights and the metaverse are closely related. There will be IP items both in the virtual and physical worlds in the near future as a result of technological innovation.

¹ E.S.S Entertainment 2000, Inc. v. Rockstar Videos, Inc, et al., 444 F. SUPP. 2D 1012

Many new products will be introduced into the digital world in the upcoming years as a result of the intense competition among the behemoth firms. The Metaverse is the "next big thing" in consumer branding, and it will define how brands interact with customers. Brands and flagship brands will not exist in the Metaverse since everything there is made up and virtual. We require IPR rules in order to safeguard these trademarks and their concepts. Any equipment or product is protected by patents, whereas software technologies are covered by copyright.

OWNERSHIP OF IP

Given the projected number of users, the Metaverse network is expected to gather vast volumes of personally identifiable information. Any AR-VR device's privacy statement will often state that it will collect information on a user's biological makeup, physical environment, and other private details. This would be regarded as "sensitive individual data" under the IT Rules because such physiological data was collected. One of the most crucial issues that need to be solved is the protection of intellectual property created in the virtual world. This is because every component of the metaverse—including the platform, supporting software, cutting-edge technology, the so-called "real estate in the metaverse," subject matter, photos, songs, design features, products, and playback—is a unique type of intellectual property.

“In order to account for the specific requirements of the world that is entirely digital, it is possible that the current notions and divisions of intellectual property will need to be enlarged upon and rearranged. The total land area relevant for the constitutional recourse of a copyright or other intellectual property is another consideration in a totally virtual setting with no state borders.” The proprietor of any property rights is regarded as the original creator under Indian copyright until explicitly stated otherwise in a contract. When intellectual property or other materials are created in the metaverse using basic technology resources or Artificial Intelligence (AI) offered by the metaverse platform, there is a potential that the host platform may take ownership of the works. Therefore, who controls any works or resources created on a metaverse network will eventually be determined by the terms of that platform's usage.

PRIVACY CONCERNS AND IPR INFRINGEMENT

Blockchain technology might be a choice for companies since there is now no government regulation that may provide recourse for virtual IPR infractions. A consensus process must be utilised before data may be deleted from or updated after it has been added to a blockchain. A blockchain is a permanent, unchangeable database. This technique can be used when a

business's virtual goods or services are offered across multiple Metaverse platforms. This technology includes and protects rights to intellectual property in content associated with goods and services. There are explanations of the pertinent products, ownership details, and a list of the relevant rights attached. The activities that are lawful and unlawful for the goods can be calculated by applying this information.

Nothing originates from nothing, said the Greek philosopher Parmenides in the late sixth century BC. Every couple of years today, seemingly unheard-of phenomena that appear to have the potential to alter both the world and the law appear to be occurring in the digital era. It was Web 2.0 a few years ago, followed by Cloud Computing, Blockchain, and Web 3.0. Numerous publications over the past year have predicted how the metaverse and NFTs (non-fungible tokens) will revolutionize the world, generating attention on the issue of whether new legislation is urgently needed to keep pace with these breakthroughs. Or, to put it another way, should the virtual world adjust to the law or the other way around?

We have benefited from an information, data, and telecommunications-based online network since the Internet's inception more than two decades ago. A variety of independent virtual worlds have also emerged, mostly on social media and in computer games like Second Life, Instagram, Fortnite, TikTok, and Roblox. The electromyogram (EMG) movements and brain interfaces of the metaverse promise to govern interconnected virtual environments. Businesses will have the unheard-of power to fully utilize the possibilities of the data they gather in the metaverse.²

The development of the metaverse, a network of three-dimensional worlds where people may engage with one another socially and commercially mostly through avatars, is something that the smartphone market and the video game business are planning for. The metaverse is yet to exist and is still a long way from becoming an actuality, at least not in the way that certain journalists are currently describing it. This is mainly because for it to succeed, there are strict computational requirements and established procedures.

NFTs, on the other hand, are already a reality. NFTs are cryptographic data units with distinctive metadata that are based on current blockchain technology. As a result, NFTs can be recognized from each other and can store other types of information, such as various people's names or artistic creations. Due to their individuality, they can be bought, sold, or traded, with

² Tata Sons Ltd. v. Greenpeace International & Anr., 45 PTC 275 (2011)

all transactions being recorded in a digital ledger. For the benefit of the entertainment sector, NFTs use the abilities of blockchain technology to produce non-fungible digital files containing embedded images, graphics, or videos that set the token's market value. Claims that the existing laws are irrelevant to the metaverse, that they are inappropriate there, or that technology progresses faster than the law are all quite prevalent. I believe that these assertions are usually always untrue, though.

Over the past 30 years, nations with sizable Internet presences have passed new laws to handle e-commerce, technologically connected crimes, consumer rights for digital content, and the liability framework for service providers, to name a few. Take the laws that govern intellectual property, for example (IP). By giving them exclusive ownership over their copyright, trademarks, patents, industrial designs, or trade secrets, they protect people like writers, inventors, producers, designers, and performers. Instead of tangible goods that contain inventive works, distinctive signs, or technological advancements, the protection of intellectual property rights is primarily concerned with their intangible attributes.

In contrast to how civil law governs ownership of tangible property, intellectual property regulations govern ownership of the intangible components of such property (such as a car, book, or purse, all of which may incorporate trademarks, patents, or pieces of authorship). According to the terminology used in intellectual property, this is how the *corpus mysticum*, an intangible asset, and the *corpus mechanicum*, a physical representation of an intangible asset, differ. It's been known for a long time that this concept applies to both NFTs and the metaverse.

The outcome is identical for NFTs. Electronic files known as NFTs allow the embedding of artistic or other information, such as movies or artwork. As long as the copyright grants this exclusive right over original authorship works (*Corpus mysticum*), anyone who utilises, for instance, an audio recording or a clip from a computer game in an NFT will need prior approval from the copyright owner of such work. In contrast, this is not the same as owning any digital versions that contain the works. Thus, there is little disagreement over the extent to which the current laws apply to NFTs and the metaverse.

“According to the Berne Convention for the Protection of Literary and Artistic Works, which 181 nations have ratified, signatories must provide writers exclusive rights to their works regardless of format or mode of expression.”

“Other international agreements have also been added to the Berne Convention, such as the 1996 WIPO Copyright Treaty, which updates the Berne Convention for the digital age. The storage of a protected work in digital form on an online device (such as an NFT or a document, the content of which is displayed in the metaverse) constitutes a reproduction, which requires the prior consent of the copyright holder, according to this agreement (Agreed Statement concerning “Article 1(4)” of the WIPO Copyright Treaty). It would appear that the law is not always applied slowly.”

Decentralization, data integrity, and ownership are the three main tenets of Web3, the new internet evolution stage. Bitcoin, blockchain-based, cryptocurrency, non-fungible tokens (NFTs), and the metaverse are important components of Web 3. The operation of businesses, particularly those involved in banking, retail, and entertainment, is about to change as a result of NFTs and the metaverse. NFTs now have a variety of practical uses in addition to being merely collectibles. Legal concerns around intellectual property rights (IPRs), that might develop owing to the decentralization and anonymized character of this technology, will also provide hurdles for numerous stakeholders as the use of NFTs and other Web3 components by enterprises increases.

On the blockchain, NFTs keep possession records for digital assets. They are a key component of the metaverse market since they make it possible to authenticate things like belongings, real estate, and even identities. NFTs, give creators and craftsmen a special way to protect, distribute, and monetize their work. Song NFTs are becoming more popular, allowing artists to rely less on big suppliers and corporations, and this is already causing a huge transformation in the music industry.

NFTs are also utilised in gaming, commerce, and even as evidence of possession in cases of fractional real estate properties and other assets, in addition to the cultural economy. The prospects in the metaverse and NFT area are being used by businesses like Nike and a number of other premium brands to market and sell their virtual goods. Nike just released the metaverse marketplace. Swoosh, enables users to interact with one another, handle tasks, buy virtual goods, and have other immersive experiences. By 2024 and 2031, the metaverse economy is expected to be worth \$800 billion and \$3 trillion, respectively.

IPR problems with copyright and trademarks have exploded as a result of the character of NFTs and their application in the metaverse. Although NFTs offer artists and rights holders a distinctive way to monetize the underlying intellectual property, buyers of NFTs frequently

encounter significant difficulties due to uncertainty regarding the rights that have truly become theirs as a result of the acquisition.³

There have been cases where NFT marketplace systems have changed the agreements relating to NFTs on their own, without the society's or customers' approval. It should be highlighted that NFTs don't have any value on their own; instead, the underlying asset that is linked to them provides value. The following sorts of licenses are typically provided via NFTs to the buyers, and they typically have distinct terms and conditions.

There are four types of licenses:

1. unrestricted commercial rights,
2. restricted commercial rights,
3. rights for personal use exclusively, and creative commons,
4. where no personal rights are allowed and everything is in the public domain.

Despite the fact that this technology is new and unique, there have been many legal lawsuits on trademark and intellectual property theft all over the world because there are so many violations of actual trademarks and copyrights in this area. On numerous NFT marketplaces, one can see NFTs that contain unauthorized photographs of well-known celebrities. Similarly to this, third parties frequently exploit well-known brands in the metaverse without permission.

IPR CHALLENGES IN THE METAVERSE

The value of the metaverse extends beyond individual experiences to include business viability. Now, companies can let you "live" the pleasure of using their goods and services. Imagine being able to virtually try on all the stuff that is offered on online apparel marketplaces before making a purchase! Future technologies like the metaverse will significantly improve our experiences, hence it's critical to comprehend the related legal issues.

Many people believe that the metaverse is a mystery where the lines separating the real world from the virtual world grow hazy. It is the fusion of augmented reality with virtual reality. The metaverse offers a universe with limitless possibilities. You can trade in digital assets, go on virtual vacations, and live an "invented" life through digital avatars. In the metaverse, you may have a picture by Raja Ravi Varman or Thor's hammer.

³ Amaretto Ranch Breedables, LLC v. Ozimals, Inc., N.D. Cal. Dec. 21, 2010

The metaverse can be thought of as a virtual expansion of our physical environment. For releasing an NFT that it believed violated its trademark, shoemaker Nike filed a complaint against online sneaker reseller StockX earlier this year. The Vault NFT collection was introduced by StockX in January 2022. Each NFT in the vault was connected to a physical good that the online retailer sells on its site and had already been purchased for resale.

Nike claimed that StockX infringed against its intellectual property by minting NFT connected to its trademark. According to StockX, because the NFT is linked to a genuine real object, its service is identical to that of any other e-commerce vendor or market that uses product photos to offer its goods. It has also depended on the idea that once a real product is lawfully sold, trademark rights are no longer tied to it, and as a buyer, it is free to continue selling the goods as it sees appropriate.⁴

In spite of the fact that these new entertainment formats provide a lot of difficulties for IP rights holders, these difficulties come from different directions. Sole rights of ownership over their intangible property are held by writers, creators, marketers, and trademark owners. However, the Berne Convention anticipates several circumstances wherein they may not be exercised, thus these rights are not unqualified. Some uses fall outside the purview of right holders' exclusivity, such as the replication of a work of literature for a book reference or the application of a trademark to represent the goods or services of the new owner.

Theoretically, we must thus get authorization from the mark's holder before employing any company's trademark in a digital representation like an NFT or a thing from the metaverse. Despite the fact that many courts have found, for example, that some creative uses of foreign companies' trademarks don't necessitate their express consent in contexts requiring video games.

AM General LLC, the company that created the well-known Humvee military vehicle, sued the creator of the Call of Duty video game series in 2017 because the game's representation of the vehicle used the trademark and looked identical to the real thing. However, the United States District Court for the Southern District of New York found that Activision's use of the brand names and the vehicle had artistic value and, as a result, satisfied the criteria of the so-called Rogers test because their objective was to create a video game that was accurately designed to simulate modern warfare.

⁴ Rogers v Grimaldi 875 F.2d 994 (2d Cir. 1989)

The luxury goods seller Hermes filed a lawsuit against artist Mason Rothschild in the matter of *Hermes v. Rothschild* for infringement of the trademark of Hermes' well-known BIRKIN brand. Rothschild released MetaBirkins as an NFT with the general prefix "meta" added to it, featuring a digital photo of the faux-fur-covered Hermès Birkin purses.

Among the most well-known NFT initiatives Ryder Ripps, a digital artist and satirist, was sued by Bored Ape Yacht Club (BYAC) after Ripps released an identical NFT collection he dubbed the RR/BYAC collection. Using Ripps' use of the BYAC trademark as justification, Yuga Labs, the plaintiff, filed a lawsuit for trademark infringement. The NFT licenses granted to costumers were of the unfettered type with the majority of rights restricted stock in the BYAC copyrights transmitted to the buyers of NFTs, and the US copyright laws do not acknowledge the copyright in the images obtained by algorithms and require human authorship, despite the fact that BYAC images are works of art. These and other factors led Yuga to rely on trademark protection rather than copyright infringement claims.

The legality of NFTs as ownership and the anonymous character of parties in the majority of instances, which makes it difficult to identify the perpetrators and serve court documentation in cases well before courts, have been other issues before the courts. NFTs were recently identified as legal property by the Singapore High Court in *Janesh Rajkumar versus Chefpierre* on the grounds that they can be defined, recognized by third parties, assumed by third parties, and have some permanency. Due to the private and distributed nature of digital asset ownership, judges in the UK and the US have ordered that documents be served by airdropping them as NFTs to wallets where the stolen NFTs were deposited. In addition, the courts have mandated that a number of NFT wallet and auction service providers divulge information about the account holders and owners of faceless wallets.⁵

It is evident that while the current legal and intellectual property structure has primarily taken into account the legal issues raised by Web3 and crypto assets, there continue to be significant obstacles to an efficient legal framework, including jurisdiction, anonymity, the ability to track down infringers, and the capability to enforce court orders. Finally, NFT producers and buyers must know their legal responsibilities and rights.

Companies that provide goods and services must either partner with organisations that design such digital experiences or develop the necessary technology on their own in order to provide

⁵ MetaBirkins case

users with the Metaverse experience. Incorporating products and offerings with virtual reality to provide users with a true-to-life experience raises questions about intellectual property rights. When such a mixed encounter is developed, problems like who owns the intellectual property (IP) to the digital content created and who retains the copyright to the creative programming enhanced by the ability of augmented worlds come up. Given that the Metaverse connects the digital and physical worlds, it may not be feasible to respond to these concerns in black or white.

MAIN IPR ISSUES THAT COULD AFFECT THE METAVERSE'S FUTURE

- **Patents in Metaverse**

Tech firms are competing with one another to develop novel metaverse goods. The characteristics of the metaverse are developed and powered by technologies like virtual reality and machine intelligence. In this context, it is important to consider how these innovations might be patented. How could the existing intellectual property frameworks accommodate these innovations? “For a period of 20 years after the patent's issuance, the first party to file a patent application for a novel, non-obvious invention that is finally accepted is granted exclusivity on that invention. This is in accordance with US patent law.” According to Indian patent laws, an invention that is claimed to be protected must also be distinct, take a new step, and have a useful application.

Given how quickly the technology is evolving, it will be difficult to distinguish between an "original" discovery and a straightforward modification of an old one, making it unlikely that any new technology would ever be found to be infringing on a specific metaverse patent. “In “Alice Corp. v. CLS Bank International (2014)”⁶, the Supreme Court of the United States reached the conclusion that the software application of an offshore method was not patented because it was an implementation of an "abstract idea." This merely makes patenting metaverse technologies more difficult. Anyone who is tasked with enforcing a metaverse patent would almost probably claim that the claimed item is a manifestation of an "abstract thought," which is not typically subject to patent protection.”

⁶ Alice Corp. v. CLS Bank International

- **Copyright in Metaverse**

In order to safeguard your intellectual property rights, you must place restrictions on any third-party companies that use your virtual space to show or distribute their works. You must also take additional precautions to shield yourself from any connected liabilities. “For instance, the U.S. Digital Millennium Copyright Act (DMCA) creates a safe harbor for companies that passively keep user-generated information that violates third-party copyrights, provided the provider complies with the DMCA, other permitted procedures, and other notice-and-takedown processes.” According to US case law, a market operator may need to use a repeated violation strategy for duplicated works in order to avoid contributory responsibility.

“NFTs have created a sizable market for digital content by serving as both a claim of ownership and a certification of validity (which, as such, can easily be copied). NFTs contain a variety of metadata, making them unique and non-interchangeable. If the digital asset supporting the NFT is, for example, a digital artwork, then such metadata could include the name of the graphic artist, the description of the work, the number of copies, and its size. Additionally, NFTs are controlled by (smart) contracts that outline the specific form of the cryptocurrency that the NFT represents and the permitted uses of the NFT by the buyer of the cryptocurrency.”

As always, care must be taken in the preparation of these license agreements to ensure that both the buyer and the seller are aware of the rights they have bought or sold. While the seller may wish to grant a non-exclusive authorization and/or restrict the right of exploitation to certain use cases, the buyer is typically interested in securing exclusive licensing for the digital artwork represented by the NFT. As a result, NFTs will be essential in the Multiverse where people buy and sell digital content, including digital goods (like art) that they intend to enjoy, show off in their virtual homes, and possibly resell to another user, ideally for a profit.

Copyrighted content is protected in the US under the DMCA, which states that "original works of creativity formed in any physical form of expression" are safeguarded. The metaverse has a variety of components that are probably covered by copyright laws, such as software, images, photos, audio files, and video files. Copyright holders should be protected in the metaverse, although there may be dangers and difficulties. Copyright holders may have trouble demonstrating copyrighted material when there is minimal or no use of the original piece, therefore copyright pirates are expected to be an issue. Content creators must also make sure that the licenses currently backing their works allow their use in the metaverse. The use of stock photos, which excels online but may not be allowed in the metaverse, is a prime example.

- **Trademarks in the Metaverse**

A trademark acquired in India would only provide legal protection there because trademarks are territorially awarded. The boundaries between countries are becoming fuzzier as the metaverse simultaneously creates a different virtual reality. Technology businesses must seek legal protection for the names, marks, and characters they develop for this virtual environment. To address the changing demands that the metaverse is generating, the laws have not yet been updated. Numerous requests for trademark protection in relation to the metaverse have been submitted to the USPTO. There is confusion caused by the fact that many of these trademarks are already authorized in one or even more jurisdictions.

- **NFTs and Metaverse**

Ownership certificates attached to digital assets are referred to as NFTs or non-fungible tokens. “These ensure that a digital asset's ownership and/or possession are documented on a digital ledger using blockchain technology. One way to avoid piracy is through providing digital content through NFTs.” The author still retains IP property of the content of the digital asset, but an NFT is a real certificate that gives the owner ownership of that particular copy of the coin. By deploying NFTs to digitise assets, the intellectual property in the creative program would be secured.

CONCLUSION

In conclusion, the risk for users of Metaverse is increased because there is now no clear legislation in India that appropriately manage it. When it comes to guaranteeing the security and dependability of this new platform, a legal gap is beginning to appear in front of us. Regulators must take action now, while Metaverse is still in its infancy, to avoid the technology from developing and making supervision more challenging. If they wait, there will be increased user dependence and regulation would be more difficult. Although there are many potential uses for new technologies like augmented reality, augmented reality (ar, blockchain, etc., some individuals are dubious about how these frameworks will change in the future.

There has also been a few well-known incidents of the unlawful utilization of other people's material in the copyright field. “The case brought by Solid Oak Sketches, the proprietor of the copyright of certain tattoo certain tattoos, over 2K Games, the studio behind the well-known video game brand NBA 2K, is one of the most significant examples.” The claimant said that LeBron James and other famous basketball players' tattoos breached the copyright of several

visuals that were utilized in the video game's digitized depictions of the athletes. The defendant won this case thanks to the reasonable use, implied license, and de minimis use defence systems which are supported by the artistic nature of video games—which were used to demonstrate that only a tiny part of the copyrighted material had been used in the infringing work. This case was heard by the same court that heard the Humvee case, the United States District Court, Southern District of New York.

However, in other cases, courts have determined that developers of video games went too far in using the IP rights of others. It follows that it is evident that each situation necessitates a different understanding of these problems. The apparent conclusion, however, is that there are plenty of instances from which to choose when debating whether or not organisations must use IP rights in NFTs or the metaverse. As has been said, nothing new is ever created from nothing, and traditionally, the application of the notion of learning from prior events has served as the basis for the development of new legislation.

Another conclusion is that the metaverse and NFTs are not as destructive as some people fear they are because, at least legally, virtual worlds and digital goods have existed for twenty years. When they emerge, NFTs and the metaverse will surely provide a variety of challenges for IP rights owners. A large percentage of these hurdles are presently impossible to foresee. As a consequence, we must assess NFTs, the burgeoning metaverse, and any other new digital happenings in the illumination of the regulations still in place, which were made a decision upon after lengthy discussions across innumerable cultures and nations.

Such regulations also have been sorely tested in a lot of circumstances and have been retained for years and years. Unquestionably, some adjustments will be necessary for the upcoming years to regulate how humans communicate in digitalised surroundings, but these should be managed to make once we comprehend whatever the issues are. IP rights will remain in force again for time to be in order to advance the arts and sciences. The present condition of the metaverse is a contrived technological jargon. We may not be extremely functional approach all of the court actions it tries to present since we can only peek at the exterior of them. Because standard IPR protection measures might not be very successful in an infinite set, it is crucial to strengthen written agreements. IPR concerns in the Metaverse can be resolved using technology to address issues that technology has caused. People's attitudes and behaviors will surely change as the metaverse takes hold. With the assistance of a strict governance system

that meets the unique challenges presented by the Metaverse, the IPR problems in the Metaverse could also be overcome.

