



Article

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Intellectual property rights in the metaverse - Copyright

Whilst probing into the developing nature of the metaverse and its nexus with intellectual property (“IP”), the concept and protection of copyright within the metaverse emerges as a critical issue. Copyright law is traditionally applied to tangible and digital mediums but has not explicitly dealt with virtual mediums such as the metaverse. The metaverse blurs the borders between the physical and digital worlds, thus making the concept of ‘reality’ and tangibility harder to define. It is also a fact that users of the metaverse create virtual replicas of actual things, structures, or even people, thus raising questions about the scope of copyright protection in the metaverse. Expansive use of digital information in the digital world in the form of text, photos, videos, and music which is easily copied, disseminated, and altered, results in unauthorized use and infringement of the rights of the authors of such works in general – in both the real and digital space.

Understanding the intricacies and challenges of copyright in the metaverse is critical for content creators, users, and regulators to manage this dynamic virtual environment safely and ethically. In this article, we have provided a comprehensive analysis pertaining to the risks, challenges, and potential approaches or recommendations for the protection of copyrights in the world of the metaverse.

Overview of copyright in the metaverse

Copyright in India is governed by the Copyright Act, 1957 which details provisions for protection to the author or creator of a work. Section 17 of the Copyright Act, 1957 states “*Subject to the provisions of this Act, the author of a work shall be the first owner of the copyright therein....*”. On a *prima facie* reading, it is clear that a person who arranges all the elements to create a work is construed as an author and first owner of the copyright that subsists in that work. Hence, one would assume that even in the case of digital works, a creator of the said digital works would be the author and the first owner of the copyright. While this assumption may hold true in the traditional understanding of digital works, it is much more complicated with regard to the use and creation of works in the metaverse.

Primarily, digital data encompasses any content within the digital realm, or content linked to the use of computerized information stored in soft copies across the internet or electronic devices, such as computers or cell phones, which are currently the most prevalent forms of digital content storage. Section 2(o) of the Copyright Act, 1957 defines literary work to include “*computer databases, programs, tables, software, and compilations that constitute a computer system.*” Thus, data-based content may be categorized as literary works. To draw context for the metaverse, the metaverse itself will have protection as it is a computer program/software without seeking registration in India. However, the uncertainty is around the copyright of creations in the metaverse.

Dilemmas and practical approaches / recommendations

Some of the primary and most critical concerns regarding the use of content in the metaverse is determining who owns the copyrighted work in cases of cross-platform creations or further development of original work, the manner and significance of licensing of copyrighted works, the application and scope of the 'fair use' principle, infringement of the copyrighted work as well as improper use of personality rights and appropriate jurisdiction in the metaverse.

The advent of the metaverse presents significant challenges for copyright protection, largely due to its immersive, interactive, and decentralized nature. If these issues and challenges are left unaddressed, it may give rise to problems in the future, such as virtual theft, piracy, and unauthorized use of copyrighted works which defeats the very purpose of protection of original works through copyright laws.

1. Who is the first author and who will have the ownership rights?

In this virtual world, digital content is not only consumed but also created and modified by users, often blurring the lines between ownership and authorship. The question that arises is whether the platform owners or the real-world user creating such works through digital means, such as through an avatar or directly by creating a virtual good, would be the owner of such works. Practically speaking, the platform and all its elements are owned by the owner/ creator of the platform. Thus, an owner of a platform or developer of the metaverse platform or the digital market place may also claim authorship over digital user content, in addition to the digital content creator as well, as digital user content relies on the design and programming developed by the developers. Unless there is any written agreement to the contrary, including any terms of usage of such platform, the author of such work would, in the natural course, be the first owner of the copyright of such works. However, the extent and scope of creativity allowed to be expressed in the metaverse or digital space in general depends on the parameters of the code written by the developers. Hence, the developers/ hosts of a platform in addition to the person creating the work could be construed as the author and the owner. Additionally, as traditionally accepted, the concept of 'work for hire' also enables one to identify the first owner of copyright to a particular work, in so much that an employer and not the creator or author, to claim the right of a first owner of the copyright so long as the works created were within the scope of employment of such creator or author.

While either of these approaches can be used to determine the author for the work made in the metaverse, the complication arises when the works being created in the metaverse are not original works but digital copies of other copyrighted works of which the digital creator is the not author.

A prime example would be in the case of NFTs¹, where the creation of NFTs of paintings or other copyrighted work is created for use or sale in the metaverse, but the creator of such NFTs is not the original artist or author of the said painting or artwork. However, through the sale or use of such NFTs the said digital creator has monetarily gained in some way or form from the creation of the said NFT. In such a scenario, would it be correct to say that the creator of the NFT has illegally gained from the unauthorised use of someone else's IP. On the other hand, copyright law is clear on the fact that an NFT is also deemed to be a "work" under the copyright act and therefore the ownership to the copyright to the NFT vests in the creator of such an NFT and the creator of such an NFT would be well within his rights to exploit the same for monetary gain. Thus, creating an issue for the copyright owner of the original work. Similarly, if a metaverse user uploads a digital copy of a song, it cannot mean that the user who created the digital copy becomes the copyright owner of the original song by mere ownership of the digital copy. In such cases, since copyright provides an exclusive right over original works of authorship which is distinct from the ownership of any digital object in which the works are an integral part, anyone who uses the original work will need prior permission of the copyright owner of such original works prior to creation of any digital representations of the original work.

¹ Non-Fungible Tokens

One needs to carefully deliberate whether ad hoc regulations and rules are really needed, or existing regulations could be utilised to benefit and protect the use of copyrighted work in NFTs and other digital copies and the metaverse.

2. Issues of infringement of copyright in the metaverse

Copyright infringement happens when an individual or entity utilizes any of the exclusive rights granted to the creator of a work without obtaining the requisite permissions and licenses. In the real world, copyright infringement entails the unauthorized reproduction of physical forms such as books, art pieces, recorded music, movies, and software. However, the ease in which digital assets, including art, music, and virtual goods, can be replicated and distributed in the metaverse raises concerns regarding the identification of infringers and enforcement of copyrights.

In the metaverse, infringement of copyright can happen through the unauthorized use of digital assets, replicating virtual environments, theft or infringement through the creation of NFTs and digital copies of original works, and distribution of metaverse software or code. One of the most glaring differences and biggest hurdles regarding infringement in the metaverse and the physical world is the anonymity and pseudonymity prevalent in the metaverse which makes the identification and prosecution of infringers virtually impossible. Furthermore, the scale and speed at which digital content can be reproduced and sent to another metaverse platform also needs to be considered. Moreover, the metaverse aims to be as interactive as possible, incorporating tools such as generative AI, making it all the more easier to infringe a copyright.

In India, copyright infringement in the metaverse is a fairly untested territory for judicial precedents to provide aid for the prosecution of infringers. Interestingly, at the global level as well, there are very limited cases on copyright infringements in the metaverse.

Some of the leading jurisprudence dealing with copyright in the metaverse are as follows:

1. Heptagon Creations Ltd vs. Core Group Marketing LLC, et al.² deals with virtual copyright in the photographs of the ANDRE JOYAU furniture line wherein the Southern District Court of New York ruled that the defendant i.e., Core Group's use of a virtual line of Heptagon's ANDRE JOYAU furniture did not infringe copyrights or trade dresses of Heptagon's real-world photograph of the furniture. The defendants included a New York real estate broker and an architecture firm, which used the virtual furniture in a sales presentation on Home and Garden Television. The concerned Copyright Office rejected the copyright registration application for the ANDRE JOYAU furniture collection and found the complaint insufficient to establish copyright protection due to the inseparable nature of the furniture's aesthetic and functional aspects. Additionally, the court relied on the fact the plaintiff i.e., Heptagon Creations Ltd failed to show that the trade dresses were non-functional, had secondary meaning, and that there was a likelihood of confusion. The court required Heptagon Creations Ltd i.e., the plaintiff, to demonstrate factors such as whether the plaintiff owns a valid copyright and if the defendant has, without authorisation copied the copyrighted work. Since the plaintiff was unable to show distinguish between physical and conceptual separability, i.e., the separation between aesthetic and functional aspects of the nine pieces of furniture and the same are inextricably linked and do not support the claims of the plaintiff and the court was of the view that there was no infringement of copyright of the plaintiff by the use of the defendants of the images of the furniture to dress their virtual space. This case highlights that the complaints for virtual objects must meet real-world pleading standards.
2. In the copyright realm, one of the prominent cases of use of third parties' content without permission is the claim brought by Solid Oak Sketches the legal proprietors of copyrighted tattoo designs sported by prominent basketball players like LeBron James, brought suit against 2K Games, the publisher of the widely recognized "NBA 2K" video game franchise.³ This lawsuit contended that

² Heptagon Creations, Ltd. v. Core Group Marketing LLC et al., 11 Civ. 01794 (LTS)(AJP)(S.D.N.Y. December 22, 2011) <https://cases.justia.com/federal/district-courts/new-york/nysdce/1:2011cv01794/376526/45/0.pdf?ts=1411558801>

³ <https://business.cch.com/ipld/SolidOakSketches2KGames20200326.pdf>

the unauthorized replication of these tattoos on the digital avatars of the athletes constituted a copyright infringement. However, 2K Games successfully countered this claim by invoking the doctrine of 'fair use'. United States District Court, Southern District of New York, in its adjudication, meticulously weighed several factors which included the de minimis nature of the use, meaning the tattoos occupied a negligible portion of the overall gaming experience. Additionally, the court entertained the possibility of an implied license, suggesting that the players themselves might have implicitly consented to the depiction of their tattoos, which are integral aspects of their likenesses, in various media formats. Furthermore, the court acknowledged the transformative nature of such use. The inclusion of the tattoos served an artistic purpose, striving to achieve a realistic portrayal of the players. In conclusion, this case underscores the importance of video game developers exhibiting a keen awareness of copyright legalities when incorporating third-party content and hence, the court ruled in the favour of the defendants.

Nevertheless, the courts may at some stage take a view that video game developers have gone too far when using third parties' IP. While the fair use doctrine offers a measure of latitude, exceeding established boundaries could culminate in legal ramifications. As such, it is crystal clear that these matters need to be examined on a case-by-case basis.

Thus, the first step in the right direction is being taken on a global stage by drawing references for copyright infringement from the physical world coupled with recognizing the potential for copyright infringement in the metaverse. Another realistic solution to this problem could be setting up appropriate and specialised forums where such infringement can be addressed across the globe and an appropriate remedy can be granted to the owner of the copyright.

3. Determination of 'fair use' of copyright

While the concept of 'fair use' as utilised in the real-world context would also apply in the world of the metaverse, ascertaining the extent of its application will be a huge task and challenging at the same time. Concurrently, it is also imperative to understand the quantum of the infringement.

In the metaverse, as there are no boundaries, content exploitation will be done globally. Owing to the vastness and co-existence of multiple metaverses, the 'real' tests of fair use which takes into consideration the purpose and character of the work, the nature of the work, the portion of the work used and the effect on market value, may lose their effect. An analogy can be drawn with social media policies for fair use of digital content. To illustrate, when uploading a video to YouTube, users must agree to the platform's terms of use. By agreeing, both the platform and its users gain the right to share and promote the uploaded content. However, this agreement does not grant anyone permission to use any work without authorization. Unauthorized use constitutes a violation of the terms of use. Similarly, the metaverse, being a platform as well, can have platform policies that determine what would amount to 'fair use' and what would not. As the metaverse evolves, existing copyright frameworks may struggle to adapt, necessitating new legal approaches and technological solutions to safeguard creators' rights and ensure fair use as well as verify the 'fair use'. A realistic approach would be to frame uniform global guidelines to ascertain such instances and strive to eliminate impartiality while dealing with and deciding the use of copyrighted work as fair use in the metaverse after incorporating proper inputs from all stakeholders across the world.

Some more points to consider for the 'fair use' aspect in the metaverse could include:

- **User-generated content:** Users often create content that includes elements from copyrighted works, such as avatars, virtual spaces, or digital art. If these creations are transformative and non-commercial, they might qualify as fair use.
- **Virtual performances and displays:** Live or recorded performances within the metaverse, such as virtual concerts or theatre, may incorporate copyrighted material. Transformative uses, such as parody or commentary, could be considered fair use.
- **Educational and non-profit uses:** Virtual classrooms or educational environments in the metaverse using copyrighted materials for teaching, scholarship, or research might fall under

fair use, especially if they are non-commercial and add educational value or for the benefit of religious institutions. This can also include the digital performance to a non-paying public.

- **Sampling and remixing:** The metaverse often involves the remixing and sampling of existing digital works. If these uses significantly transform the original works and are done for non-commercial purposes, they may be protected by fair use.

4. Determination of appropriate jurisdiction

The virtual and transnational character of the metaverse creates complicated legal concerns when it comes to determining the suitable jurisdiction. One of the key reasons is that users from all over the world communicate, transact, and generate material in the metaverse. Hence, it can be challenging to ascertain which national laws would apply in certain situations involving intellectual property rights, disputes, regulatory compliance, or the authorities that need to be involved. Additionally, the decentralised and frequently anonymous characters of users' interactions make it even more difficult to identify parties and carry out legal proceedings as well as enforceability of the infringement laws due to the cross-border nature of the metaverse and IP rights being geographically limited.

While most of the practical concerns and challenges cannot be anticipated at this stage, analysing NFTs, the emergent metaverse and any other new digital phenomena should be taken into consideration as against existing regulations, which have withstood the test of time. Conventional legal frameworks, based on territorial distinctions, find it difficult to adequately handle these disputes and concerns arising in the metaverse.

Due to the concerns raised above, it is absolutely necessary to create cooperative procedures and new universal legal norms in order to manage jurisdictional disputes and the ambit of 'fair use' for the use of copyrighted works in the metaverse. Without a doubt, some adjustments will be necessary in view of the constantly evolving nature of the metaverse and to regulate human interaction in digitally connected worlds, but this will help ensure a just and orderly virtual environment. Globally recognised regulations and guidelines will also have to be enacted after contributions from experts all over the globe.

5. Is it essential to license the copyright?

It is pertinent to examine the issues in ownership rights in the context of developers of the platforms and the platforms themselves. In most cases, the ownership rights of the developer, and not the creator per se, are further strengthened by non-exclusive, irrevocable, perpetual license agreements usually executed without any thought or application of mind by the users/creators at the time of signing up for these platforms.

While on one hand such platforms use click-wrap licensing agreements to acquire the rights akin to those of a creator or author from the user, in the event of any third-party infringement of such protected content, these very agreements allow the platforms to adopt an intermediary status and therefore be absolved of all liability for such third-party infringements taking place on their platforms. In both these cases, the ownership rights of the creator are detrimentally affected since the bargaining power lies either with the developer or the platform, enforced through these one-sided agreements. Unfortunately, the enforceability of these kinds of agreements are currently in uncharted waters as well and will have to be dealt with on a case-to-case basis which creates further ambiguity on how creator rights will be dealt with and protected in the world of metaverse.

However, it is pertinent to mention at this junction that the rights of a creator are not completely usurped by platforms through such broadly worded click-wrap agreements. The Berne Convention for the Protection of Literary and Artistic Works read with the Agreed Statement Concerning Article 1(4) of the WIPO Copyright Treaty⁴ clearly states as follows:

⁴ https://www.wipo.int/edocs/pubdocs/en/wipo_pub_226.pdf

“Agreed statement concerning Article 1(4): The reproduction right, as set out in Article 9 of the Berne Convention, and the exceptions permitted thereunder, fully apply in the digital environment, in particular to the use of works in digital form. It is understood that the storage of a protected work in digital form in an electronic medium constitutes a reproduction within the meaning of Article 9 of the Berne Convention”.

Essentially, it means that contracting parties must grant exclusive rights to authors over their works irrespective of the type or form of their expression and that the storage of a protected work in digital form in an electronic medium constitutes a reproduction that needs the prior approval of the copyright holder. Thus, these provisions heavily tilt the scale in favour of the creators.

The general industry practice in the US regarding ownership of works in the metaverse is that it is decided by the term of use or the end-user license agreement between the user and platform which generally provides ownership rights to the developers. This deterministic perspective is followed on the ground that digital user content can only be created, changed, or differentiated to the extent that is allowed by the developers, and thus, the creators have limited creative involvement.

However, this perspective, on the other hand, fails to consider the contributions of the users to customize and create digital user content. For instance, in the case of digital avatars, users personalize their avatars to include the avatar's likeness, expressions, behavior, etc., which has been created by the user for a specific purpose. Another example would be a metaverse concert with music, which could be done by giving a performance license and a reproduction license as it will be streamed virtually and in the real world. There is always going to be an overlap of rights and use, and without such a definition, it would lead to difficulty in identifying the user rights to be granted for the proper use as against rights leading to exploitation of content in the metaverse. In the absence of proper licensing and user agreements with the author, use of copyrighted work would be tantamount to copyright infringement.

At this point in time, the only visible solution in terms of safeguarding the rights of authors in the metaverse would be limited to entering into a proper licensing agreements that would need to be customised as per the scope of use and type of content and a standard form click wrap agreements, as currently used, may not be useful while determining the rights of the creator/author.

One also needs to consider a scenario if any third party shares such copyrighted works of the metaverse in the real world without the relevant permissions from the copyright owner. For example, if metaverse user has copied the work such as virtual photograph and then sold or shared with third party who further made copies of the same. This copyrighted work is circulated without permission of the owner / author which will also lead to infringement. However, practically, it will be near impossible to identify and hold accountable the original infringer. In such cases, the onus should be on the intermediary to detect the root cause of the infringement. However, it is pertinent to mention that the extent of liability on intermediaries is extremely limited and to a level may be covered under Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 that may hold the intermediaries also liable for infringing content available on their platforms, given the fact that the content created on such platforms belongs to the owners/ developers of such platforms in the metaverse. More stringent laws must be enacted to also hold intermediaries liable to a certain extent for infringement happening on their or through their platforms. Holding the intermediaries in the digital world liable can be done only with the formulation of strong legal frameworks with stern penal provisions which are applicable to both digital platforms and the metaverse as well.

The metaverse itself can also engage platform operators and can also use content moderation measures such as automated algorithms or human moderators, to identify and remove infringing content from their platforms. Such proactive approaches allow for the early detection and mitigation of copyright infringement in the virtual world.

Copyright enforcement tactics are very critical to protecting the rights of authors and ensuring a sustainable virtual world. Currently intermediaries limit the scope of their liability in the case of IP

infringement by adhering to notice-and-takedown procedures, maintaining safe harbor protections, implementing repeat infringer policies, and actively monitoring their platforms for infringing content.

The metaverse presents new challenges for copyright enforcement, but stakeholders can always work together to protect intellectual property in virtual realms and ensure a vibrant and sustainable creative ecosystem by implementing effective strategies such as copyright notices, terms of service, content moderation, reporting procedures, licensing, and education.

6. Personality rights

Claiming of authorship by the developers over digital user content in the metaverse overlooks the fact that works created by a creator in the metaverse is more than just code—it also includes personalized elements and, thus it also to a certain extent includes a component of vested rights such as personality rights, moral rights, etc. which cannot be assigned or claimed by any other party except for the creator of such content themselves. In the case of *Mannu Bhandari v Kala Vikas Pictures Pvt Ltd and Others*⁵ it was held that moral rights could not be restricted to literary works but extend to visual and audio manifestations as well. Further, in the case of *Amitabh Bachchan v Rajat Nagi and Ors*⁶ wherein the plaintiff alleged that his celebrity status was being used to promote the interests of the respondent. In this case it was held by the court that there is a growing need for the protection of personality rights, and it was held that using names, images, voices, or any characteristic of well-known actors would also amount to copyright infringement.

It is imperative that personality rights are protected under the copyright regime in the metaverse as well. However, it is a common practice for platforms like Meta, Linden Lab (Second Life), Roblox, and Zepto to assert in their terms of use that all intellectual property relating to services and products belongs to the company or its licensors. Hence, this may create an issue where the same rights in a single piece of work can be claimed by two owners, thus muddying the ownership chain and adversely affecting the creator's right to enforce their copyrights against third parties. For example, if a metaverse user creates a unique avatar by utilizing a combination of the platform's tools and their own artistic personalized elements, then the platform may assert a right over the avatar despite it being the user's creation. This dual claim will create complications if the user wants to use their avatar uniformly on various metaverse platforms.

Conclusion

In a nutshell, real and intricate challenges will keep coming into light owing to the continuous development of the metaverse. Conventional legal frameworks find it difficult to keep up with these advancements since they were not intended for the distinct, decentralized, and intensely participatory nature of the virtual worlds. Unresolved critical concerns, including ownership rights, licensing, fair use, ascertaining the manner and extent of infringement, identifying the infringer and jurisdiction, could result in conflicts and legal uncertainties. Hence, it is the need of the hour to take steps to modify the existing legal mechanism to facilitate the protection of copyright in the evolving metaverse.

It is essential to modify current copyright laws and create new legal standards that can adequately handle the complexities of the metaverse in order to safeguard authors' rights and preserve the integrity of inherent copyright in the digital realm. This entails establishing international collaborations to manage jurisdictional difficulties, guaranteeing fair and transparent licencing arrangements, and acknowledging the contributions made by users in the creation of digital content for their creative imagination and personalised approach. The protection of creators and the promotion of innovation must coexist in harmony when it comes to the enforcement of intellectual property rights in the metaverse.

Platforms and developers need to collaborate with law enforcement to establish strong regulations that discourage piracy and unauthorized usage while fostering a thriving and inclusive digital economy.

⁵ AIR 1987 Delhi 13.

⁶ *Amitabh Bachchan v. Rajat Nagi & ors*, CS (COMM) 822 OF 2022.

Negotiating the legal terrain of the metaverse necessitates a proactive strategy that combines legal framework updates with technological advancements. By taking on these obstacles head-on, we can make sure that the metaverse continues to be a vibrant and fair environment for users, consumers, and companies in equal measure, eventually realising its promise as a cutting-edge digital frontier.

Ultimately raising awareness amongst users, content creators, and platform operators in the metaverse about copyright laws and best practices helps build a culture of compliance and upholds the protection of IP rights.

To understand the risks, challenges and potential approaches or recommendations for the use of trademarks in the metaverse, please see our article at the below mentioned link:

Click here: [ALMT Article - Intellectual property rights in the metaverse – Trademarks](#)

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