

Sexual Exploitation of Avatars in the Metaverse: An Intellectual Property Perspective

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Abstract: *Metaverse is a virtual world accessible on the internet. It is used for socialising, entertainment, commerce, etc. An avatar in the metaverse could be a personalised digital representation or a fictitious character in online games or Virtual Reality (VR) platforms. The avatar often mimics real-world characters in appearance. Virtual Reality (VR) platforms provide valuable space for community building, exploring identities, particularly for introverts but they also come with a grim reality. The problem arises when proprietors try to express their creativity in the form of digital avatars and digital identities, often protected as creative works or proprietary assets. These are misused in non-consensual virtual acts, raising new questions of ownership, consent, and accountability". The advent of virtual technology has brought with it the dark side of Virtual Sexual Assault. This paper explores the key gaps in law that restrict the definition of rape to the physical world, without defining how sexual violence should be addressed in virtual spaces like the metaverse. Traditional Laws define rape based on consent, accountability and the measure of such crimes mentally and physically on a victim. However, these laws become ill-equipped to address avatar-based, virtual or non-consensual sexual acts that occur without physical touch. The topic raises many questions like, such as whether it is the creator of the Avatar or the perpetrator who should be held responsible. Metaverse rape has spread its venomous tentacles to such an extent that it has become a challenge that the law cannot ignore anymore.*

Keywords: Avatars and Digital Identity, Consent, Intellectual Property Law, Metaverse, Platform Liability and Virtual Sexual Assault

1. Introduction

Metaverse sounds like a world out of some science fiction movie or some crazy scientist writing some book about some imaginary world we get transported to in our dreams. That is how the story of Metaverse started. It was from Neal Stephenson's 1992 science fiction novel *Snow Crash*¹. It was a world created where people would enter or escape the real world and interact with their avatars. At present, the metaverse is largely unbuilt, and there are competing visions of what the metaverse will be like and which technologies will power it. But broadly speaking, the metaverse will likely include a blend of virtual reality (VR) and augmented reality (AR) experiences. It may also use new decentralized finance technologies like blockchain technology and non-fungible tokens (NFTs) to harmonize commerce and interoperability across platforms². The metaverse will likely comprise numerous 3D worlds³, many of them aimed at consumers and some, like the so-called industrial metaverse and infrastructure metaverse, designed to transform how work gets done. The latter implementations might be built on the centralised services already running on the large cloud platforms enterprises use and emerging platforms like Nvidia's Omniverse.

This is not just a good escape from the dystopian reality we live in. It "It offers relief for those with anxiety or social phobia. VR has great promise with regard to exposure therapy by enabling the patient to safely confront trauma cues in virtual settings without resorting to reality-based exposure. It addresses the difficulty of reproducing trauma with

immersive sensory stimuli in a realistic but safe manner. For instance, "Virtual Iraq" is a Post Traumatic Stress Disorder (PTSD) therapy system in which patients interact with virtual representations of Iraq and Afghanistan, 80% of users no longer met PTSD screening criteria following treatment. Rational Emotive Therapy (RET) "Rational Emotive Therapy (RET) is useful for treating specific phobias such as fear of small animals, public speaking, and claustrophobia". Benefits of treatment were maintained 6 months following in a study of 9/11 survivors. Virtual Rational Emotive Therapy (VRET) may provide an added value over traditional participants⁴. Increased public acceptance of VR as a credible device has contributed to an increase in the number of people seeking treatment.

The rapid evolution of immersive digital environments collectively described as the *metaverse* has transformed the nature of social interaction, commerce, creativity, and identity. The metaverse functions as a junction of immersive technology and intellectual property ecosystems. Virtual reality (VR), augmented reality (AR), mixed reality (MR), and persistent online worlds allow users to embody digital avatars that increasingly function as extensions of their physical selves. Each avatar, wearable device, digital artwork, gesture library, or haptic design could be protected by copyright, trademark, or design rights. While these environments promise unprecedented opportunities for innovation and expression, they also replicate and, in some cases, intensify existing forms of harm. One of the most disturbing manifestations of such harm is the phenomenon popularly described as "rape in the metaverse,"⁵ referring to

¹ Neal Stephenson, *Snow Crash* (1992)

² The history of the metaverse explained (with timeline), <https://www.techtarget.com/searchcio/tip/History-of-the-metaverse-explained>

³ CSS concepts, <https://www.frontiersin.org/journals/robotics-and-ai/articles/10.3389/frobt.2016.00074/full>

⁴ Henry Jenkins, *Confronting the Challenges of Participatory Culture* (MIT Press 2009).

⁵ Clare McGlynn, Carlotta Rigotti, *From Virtual Rape to Meta-rape: Sexual Violence, Criminal Law and the Metaverse*, *Oxford Journal of Legal Studies*, Volume 45, Issue 3, Autumn 2025, Pages 554–582, <https://doi.org/10.1093/ojls/gqaf009>

non-consensual sexual acts or sexually violent conduct perpetrated against a user's avatar within immersive virtual spaces. When sexual violence is perpetrated in the metaverse, it frequently involves the unauthorized use or abuse of another person's avatar⁶, and can thus be broken down into the harmful use of a digital embodiment or avatar.

Additionally, deepfakes and virtual replicas in VR⁷ contexts raise new concerns surrounding moral rights, including the right of integrity and the right against derogatory treatment of works or likeness. Therefore, virtual rape in the metaverse is not solely a criminal, psychological, or ethical issue, but also an intellectual property issue, as the violation happens through wrongful use of digital representations and creations owned or controlled by individuals.

Existing scholarship analyses avatar-based harms through the lens of criminal law, feminist theory, psychology, and cybercrime regulation, but they remain insufficient to address the full complexity of harms occurring in avatar-based environments. This paper advances a complementary and underexplored perspective: an intellectual property (IP) centric framework for understanding, classifying, and remedying sexual violence in the metaverse. It argues that avatars, virtual bodies, and associated digital identities constitute legally cognizable IP interests whose violation through non-consensual sexual acts amounts not merely to moral or psychological injury but also to infringement of proprietary, moral, and dignitary rights.

By repositioning metaverse sexual violence within the architecture of IP law, this paper makes three central claims. First, avatars function as protectable subject matter under copyright, design law, publicity rights, and, in some jurisdictions, trademark law. Second, non-consensual sexual acts committed against avatars can be conceptualized as violations of moral rights—particularly the right of integrity and the right against derogatory treatment—alongside economic exploitation and misappropriation. Third, an IP-centric approach offers practical advantages in terms of jurisdiction, enforcement, platform accountability, and remedies, particularly where criminal law struggles with evidentiary thresholds, territoriality, and definitional constraints.

2. Literature Review

- 1) **Sexual Violence in Virtual Reality: A Scoping Review**-Porta, C. M., Frerich, E. A., Hoffman, S., Bauer, S., Jain, V. M., & Bradley, C. (2023). *Sexual violence in virtual reality: A scoping review*. Journal of Forensic Nursing. PMID:38093420. [Sexual Violence in Virtual Reality: A Scoping Review – PubMed](#)

It is a comprehensive scoping review that analysed 47 studies to map the state of research on sexual violence/harassment in VR. It documents incidents of harassment and other harms that are reported, and

limited research explicitly addresses how these experiences impact psychological trauma, predictors of harm, or prevention/intervention strategies. The study also shows incidents of victims being retraumatized. Various testing of VR tools used to educate, deliver bystander interventions, transform biases and perceptions via embodiment, and promote healing among survivors. The paper suggests that the same guidelines followed for gaming and social media must be followed.

- 2) **From Virtual Rape to Meta-rape: Sexual Violence, Criminal Law and the Metaverse**

McGlynn, C., & Rigotti, C. (2025). From Virtual Rape to Meta-rape: Sexual Violence, Criminal Law and the Metaverse. Oxford Journal of Legal Studies. Advance online publication. <https://doi.org/10.1093/ojls/gqaf009> Metaverse has been blurring the lines between physical and virtual realms, via the use of haptic devices that give sensory feedback, it is becoming an integral to daily life. The digital frontier is also a site for sexual violence. Women users have been reporting non-consensual touching, image-based sexual abuses and novel forms of gendered harm, often trivialised and inadequately addressed by current laws. The article proposes the concept and terminology of 'meta-rape' to help understand the intense and embodied nature of these forms of sexual violence. The paper caters to the cauterisation of sexual harassment and abuse in the metaverse, together with a comprehensive analysis of the role and application of criminal law in tackling meta-rape. Conventional approaches, forms of meta-rape. The paper suggests strengthening and future-proofing criminal law, with laws proscribing intimate intrusions. The paper states a dire need for reframing our understanding of meta-rape, addressing the prevalence and impact of these gendered and sexualised harms, providing robust avenues for victim redress and promoting safety and autonomy in emerging virtual spaces.

- 3) **Metaverse crimes in virtual (Un)reality: Fraud and sexual offences under English law** <https://doi.org/10.1016/j.jeconc.2024.100118>

The technological evolution of the metaverse has opened new frontiers but it has become an indispensable part of our daily lives. The technology that enhances lives presents a dual reality it offers opportunities for criminals while creating challenges for law enforcement. Virtual asset service takes measures to tackle cryptocurrency-related fraud. The becomes challenging if the perpetrator exists solely a virtual person and not in the real world. In 1992, Neal Stephenson used the term 'Metaverse' to describe a virtual world where people interact with each other using avatars in his book called Snow Crash. The Metaverse transformed into a complex concept akin to 'cyberspace'. The Metaverse is a virtual environment that uses technologies to mimic the real world. The virtual space became intertwined with financial transactions, especially through

⁶ Identity Theft and Impersonation in Cyberspace (Sections 66C and 66D of the IT Act, 2000), https://www.researchgate.net/publication/394226089_Identity_Theft_and_Impersonation_in_Cyberspace_Sections_66C_and_66D_of_the_IT_Act_2000

⁷The privacy paradox of deepfake virtual reality porn, <https://link.springer.com/article/10.1007/s43681-025-00934-y>

cryptocurrencies, the Metaverse evolved into a medium for perpetrating scams. The article aims to address the challenges associated with criminal activity in the Metaverse. The potential applications of AI, cryptocurrencies and Non-Fungible Tokens, three main challenges have been identified in the paper: 1) decentralisation, 2) anonymity of the user, and 3) lack of regulation. This article looks into existing legislation to regulate criminal activity in the Metaverse through doctrinal research. It analyses the challenges of addressing virtual crimes by contrasting fraud (Fraud Act 2006) with sexual assault (Sexual Offences Act 2003), highlighting the complexity of addressing crimes involving physical contact in virtual spaces compared to financial crimes.

- 4) **Meta-Rape: Sexual Violence, Criminal Law and the Metaverse-** McGlynn, Clare M. S. and Rigotti, Carlotta, *Meta-Rape: Sexual Violence, Criminal Law and the Metaverse* (August 22, 2025). Available at SSRN: <https://ssrn.com/abstract=5401867> or <http://dx.doi.org/10.2139/ssrn.5401867>

Metaverse is immersive technologies and haptic devices that increasingly blur the boundaries between physical and virtual spaces. Metaverse is embedded in everyday life. The new frontier exposes users, particularly women and girls, to sexual violence in the form of non-consensual touching, image-based sexual abuse, and other emerging harms. These experiences are not given the same level of gravity as it would be in the real world it has been trivialised and inadequately addressed under existing legal frameworks since they are online. The paper introduces a policy brief concept of ‘meta-rape’ to better reflect the embodied and intense nature of sexual violence in virtual environments. It offers a new typology of sexual harassment and abuse in the metaverse and critically assesses the potential for criminal law to respond to these harms. The current legal provisions may already cover certain instances of meta-rape, though reform is needed.

- 5) **Kourtesis, P. (2024). *A Comprehensive Review of Multimodal XR Applications, Risks, and Ethical Challenges in the Metaverse.* arXiv. *A Comprehensive Review of Multimodal XR Applications, Risks, and Ethical Challenges in the Metaverse***

This paper examines the broad applications, risks, and ethical challenges associated with Extended Reality (XR) technologies, including Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR), in the context of the Metaverse. XR is revolutionising fields of immersive learning in education, medical and professional training, neuropsychological assessment, therapeutic interventions, arts, entertainment, retail, e-commerce, remote work, sports, architecture, urban planning, and cultural heritage preservation. The integration of multimodal technologies, haptics, eye-tracking, face- and body-tracking, and the brain-computer interfaces, enhanced user engagement and interactivity, the role shaping the immersive experiences in the Metaverse. The XR's expansion raises concerns related to data privacy risks, cybersecurity vulnerabilities, cybersickness, addiction, dissociation, harassment, bullying, and misinformation. The psychological, social, and security challenges are

complicated by intense advertising, manipulation of public opinion, and social inequality, and disproportionately affect vulnerable individuals and social groups. The review emphasises the urgent need for a robust ethical framework and regulatory guidelines to address the risks, promoting equitable access, privacy, autonomy, and mental well-being. XR technologies integrate artificial intelligence, and governance is essential to ensuring the safe and beneficial development of the Metaverse and the broader application of XR in enhancing human development.

- 6) **Virtual Reality as a Social Platform in HCI Community-arXiv:2410.11869 [cs.HC] (or arXiv:2410.11869v1 [cs.HC] for this version) <https://doi.org/10.48550/arXiv.2410.11869>**

Virtual reality (VR) is increasingly used as a social platform for users to interact and build connections with one another in an immersive virtual environment. The empirical progress in the area of study, a comprehensive review on VR used to support social interaction, is required to consolidate the practices and identify research gaps for future studies. They conducted a survey of 94 publications in the HCI field to evaluate another VR designed and evaluated for social purposes. VR influences social interaction via self-representation, interpersonal interactions, and interaction environments. There were four positive effects of VR for socialising: relaxation, engagement, intimacy, and accessibility, and it showed that it could negatively affect user social experiences for intensifying harassment experiences and amplifying privacy concerns. The introduction of an evaluation framework that includes the key aspects of social experience: intrapersonal, interpersonal, and interaction experiences. There are several research gaps and proposed future directions for designing and developing VR to enhance social experience.

- 7) **“There I was, being virtually groped”: Explore psychological ownership and the framing of sexual harassment in the immersive virtual reality space - <https://doi.org/10.1016/j.chb.2025.108559>**

In the immersive virtual reality (IVR) spaces, which are free from sexual harassment. They are guided by psychological ownership theory and select insights from Clair's (1993) framing devices. The study investigates how social media discourses sexual harassment in IVR spaces. A survey done on discourse analysis of 40 Reddit posts with 6,021 comments between October 2021 to October 2022, three framing devices with different levels of psychological ownership have been identified. They are: 1) Degradation: Less than Sexual Assault; 2) Reification: It's Part of Gaming; and 3) Trivialization: Groped by Some Computer Code. The study draws a conclusion that users' sense of psychological ownership influences how they perceive sexual harassment in the IVR space. The discussion of the study provides insights into understanding users' rights in IVR environments and highlights the need for the new technology industry to assemble rules and regulations.

3. Statement of Problem

Identity and avatar exploitation occurs where avatars represent personal likeness or copyrightable digital content.

Non-consensual sexual actions committed through avatars may violate copyright, image rights, or design rights. IP regimes were not intended to address physical or real-time violations in virtual environments. Even where avatars qualify for protection, there are no legal remedies for sexualized exploitation of avatars. In jurisdictions recognizing moral rights, non-consensual modification of avatars may violate dignity and integrity rights, though enforcement remains problematic in cross-border scenarios.

Most metaverse platforms retain broad licensing rights through Terms of Service, limiting user control and remedies when sexual violence occurs. Proving unauthorized use and identifying jurisdiction is technologically and procedurally complex due to global servers and fragmented enforcement mechanisms.

Research Objectives

- 1) To understand whether the existing legal definition of rape is sufficient to address sexual violence in virtual spaces
- 2) To examine the role of avatars and digital identity in consent, ownership, IP and authority
- 3) To identify loopholes and grey areas in the legal framework and explore possible solutions to curb sexual violence in the Metaverse.

Research Questions

- 1) Does the existing definition of rape and sexual assault extend to sexual violence in the metaverse?
- 2) How does the intersection of rape in the metaverse and intellectual property affect consent, authority, and exploitation of avatars?
- 3) What role does intellectual property play in determining liability and judicial assessment in such cases?

4. Methodology

- 1) **Doctrinal and IP Analysis** - The study examines copyright statutes to determine whether avatars and digital assets qualify as works of authorship under international and domestic frameworks. Moral rights are compared across jurisdictions. Trademark misuse is examined where sexual violence involves branded avatars. Platform Terms of Service are analysed to assess ownership and liability allocation. Case law analogues include deepfake pornography and avatar likeness disputes.
- 2) **Empirical Research** - Surveys and interviews were used to assess awareness of metaverse harms and perceptions of legal adequacy. Qualitative coding captures themes of ownership, integrity, and platform responsibility.
- 3) **Cross-disciplinary Integration** - Law examines criminal liability and IP intersections. Psychology assesses trauma linked to avatar violation. Ethics evaluates whether avatars should be recognized as extensions of dignity and selfhood. Policy explores

hybrid remedies combining criminal law and IP damages.

- 4) **Psychological and Ethical Aspect** - The psychological analysis focuses on trauma, distress, embodiment impact, and re-traumatization resulting from non-consensual virtual acts. Ethical considerations include platform obligations, consent mechanisms, safety-by-design, and responsibilities toward vulnerable users. The anonymity of the metaverse may reduce stigma but also increases the risk of abuse. Trauma-informed protocols are required for research and platform governance.

Conceptualizing The Metaverse and Avatar Embodiment

The metaverse is not a single, unified platform but an ecosystem of interoperable or semi-interoperable digital spaces characterized by persistence, embodiment, synchronicity, and user-generated content. Platforms such as Meta's Horizon Worlds, Roblox, Decentraland, The Sandbox, and VRChat exemplify this environment, allowing users to create avatars that move, gesture, interact, and experience proximity in ways that closely mimic physical presence.

Avatar embodiment is central to understanding harm in these spaces. Unlike traditional social media profiles or usernames, avatars operate as *embodied digital selves*. Users often invest significant time, creativity, and financial resources into customising their avatars, imbuing them with personal, cultural, and aesthetic significance. Empirical studies in human-computer interaction and cyberpsychology demonstrate that users experience physiological and emotional responses in VR that mirror real-world reactions, including stress, fear, humiliation, and trauma.⁸The chronology of the evolution of the Metaverse is shown below:

Evolution of the Metaverse and Rise of Virtual Sexual Assault

- 1992 – First use of the term “Metaverse” in Snow Crash by Neal Stephenson
- 1993 – First reported use of the term “Virtual Rape” in the LambdaMOO incident
- 1995 – Active Worlds enables user-created virtual environments
- 2003 – Second Life introduces avatars and virtual economy
- 2014 – Facebook acquires Oculus VR
- 2016 – Pokémon GO popularizes AR gaming
- 2020 – COVID-19 accelerates adoption of virtual platforms
- 2021 – Facebook rebrands as Meta
- 2021–22 – Reports of metaverse sexual harassment in VRChat and Horizon Worlds
- 2023 – Apple launches AR headsets
- 2025 – Ongoing litigation and IP entanglement globally

From a legal perspective, this embodiment destabilises the traditional dichotomy between the “virtual” and the “real”. Harm inflicted on an avatar is not merely symbolic; it is experienced somatically and psychologically by the user. This “This requires a legal framework that recognises avatars

⁸ Traumatic stress, body shame, and internalised weight stigma as mediators of change in disordered eating: a single-arm pilot study of the Body Trust framework, <https://www.tandfonline.com/doi/full/10.1080/1064026>

6.2021.1985807?_cf_chl_tk=rLmxWELHkdKwUd_zVAatI2gOlbvEgGThJm9SSB2Ysu0-1769848385-1.0.1.1-jA4o_C5TziEyY0GwK4X7ShTU6VpZQ80PoR3tgZC9fs

as more than data objects, without equating them to physical bodies”.

Intellectual property law, with its long history of protecting intangible yet economically and personally significant creations, offers such a framework.

Defining Sexual Violence in Virtual Environments

The term “rape in the metaverse” is often used “The term ‘rape in the metaverse’ is mainly rhetorical, not doctrinal”. Criminal law definitions of rape typically require physical penetration, force, or threat, elements that do not translate neatly into virtual contexts. As a result, many jurisdictions struggle to categorize virtual sexual assaults as rape or sexual assault under existing statutes. These are instead treated as stalking or “meta-rape”.

However, focusing exclusively on criminal law definitions, risks obscuring the nature of the harm. In virtual environments, sexual violence manifests through actions such as:

- Non-consensual touching or groping of avatars;
- Simulated sexual acts performed on or with an avatar without consent;
- Use of haptic feedback devices to simulate physical sensations;
- Recording, distributing, or monetizing sexualized interactions involving another user’s avatar;
- Modifying or hijacking an avatar to depict it in sexual acts.

These acts target the avatar as a site of identity, expression, and control. Rather than asking whether such conduct meets the elements of rape under criminal law, this paper asks whether it constitutes a violation of legally protected interests in the avatar itself. When framed in this way, IP law becomes directly relevant.

Avatars As Intellectual Property Subject Matter

Avatars in digital space like in the Metaverse, function as complex intellectual property (IP) subject matter. They encompass elements of copyright, trademark and right of publicity. Since Avatars are digital representations of individuals or brands in virtual space, they require protection against unauthorised use, deepfake technology, and counterfeiting.

Copyright Protection - Copyright law protects original works of authorship fixed in a tangible medium of expression. Avatars, whether designed by users or generated through platform tools, often meet this threshold. Customization choices—body shape, facial features, clothing, accessories, animations reflect creative expression. Courts have increasingly recognized digital characters as copyrightable, provided they are sufficiently delineated.

In the metaverse context, the user may be considered the author of the avatar, particularly where customization is extensive. Even where platforms provide templates, the user’s selection and arrangement of elements can constitute originality. Unauthorized sexual use of an avatar such as depicting it in explicit acts without consent may therefore amount to copyright infringement, particularly where the act involves reproduction, adaptation, or public display.

Moral Rights and the Right of Integrity - Moral rights, recognized in varying degrees across jurisdictions, protect the personal and reputational connection between an author and their work. The right of integrity prohibits distortion, mutilation, or other modification of a work that is prejudicial to the author’s honour or reputation.

Non-consensual sexualization of an avatar constitutes a paradigmatic violation of this right. By subjecting the avatar to sexually explicit acts, the perpetrator alters the meaning and perception of the work in a manner deeply prejudicial to the user. Jurisdictions such as France, Germany, and India, which recognize strong moral rights, are particularly well-suited to this analysis. Comparative analysis reveals that:

- The European Union’s strong moral rights framework provides robust protection against avatar sexualization. Obligations relating to risk assessment, systemic harm mitigation, and user protection can be interpreted to encompass avatar integrity.
- The United States, while weaker on moral rights, offers remedies through copyright and publicity rights. Civil litigation, though costly, remains a viable avenue for addressing avatar misuse, particularly where commercial exploitation is evident.
- Jurisdictions such as Japan and South Korea, with advanced virtual economies and strong IP cultures, are likely to confront these issues imminently. Their experiences with virtual idols and digital personas provide valuable comparative insights.
- India’s recognition of moral rights under the Copyright Act creates potential for innovative litigation. India’s Copyright Act provides robust moral rights protection, including the right of integrity. Indian courts have historically interpreted moral rights expansively, emphasizing the author’s dignity and personal connection to their work. Non-consensual sexualization of an avatar would likely qualify as a distortion or mutilation prejudicial to the author’s honour or reputation.
- **Design Rights and Industrial Designs** - In some jurisdictions, avatars may also qualify for protection under design law, which safeguards the visual appearance of products. Where avatars are used commercially—such as in influencer marketing, virtual fashion, or e-sports their design acquires economic significance. Sexual misuse of such designs can dilute their value and constitute infringement.
- **Rights of Publicity and Personality** - The right of publicity protects individuals against unauthorized commercial exploitation of their identity. Avatars that closely resemble their users, or that are explicitly marketed as representing a particular individual, may fall within this domain. Sexual acts involving such avatars, especially when recorded or monetized, can violate publicity rights even absent traditional IP infringement.
- **Sexual Violence as IP Infringement** - Reconceptualising metaverse sexual violence as IP infringement shifts the focus from bodily harm to violations of control, consent, and authorship. This shift has several implications. First, consent becomes central. Just as unauthorized reproduction or adaptation infringes copyright regardless of physical harm, unauthorized sexual use of an avatar infringes IP rights regardless of whether it involves

physical contact. Secondly, harm is understood as both economic and dignitary. Sexualization can diminish the commercial value of an avatar, particularly for users who monetize their digital identities. Simultaneously, it undermines the user's dignity by associating their digital self with acts they did not choose. Thirdly, remedies become more accessible. IP law offers injunctions, damages, takedown mechanisms, and platform liability doctrines that may be more readily enforceable than criminal sanctions.

- **Platform Governance and Terms of Service** - Metaverse platforms occupy a hybrid role as hosts, regulators, and economic beneficiaries. Their Terms of Service (ToS) typically grant platforms broad licenses over user-generated content while disclaiming liability for user conduct. However, such provisions are increasingly challenged by regulators and courts. From an IP-centric perspective, platforms may bear secondary liability for facilitating or failing to prevent infringement. If a platform's design enables non-consensual interactions, or if it fails to act upon notice of infringement, it may be liable under doctrines analogous to contributory or vicarious infringement. Moreover, ToS clauses that effectively waive users' moral rights or consent to sexualized uses may be unenforceable in jurisdictions where such rights are inalienable. This creates tension between platform governance models and national IP regimes.
- **Jurisdictional Challenges and Comparative Perspectives** - One of the most significant obstacles to regulating metaverse harms is jurisdiction. Virtual acts occur in spaces that are geographically diffuse, involving users, servers, and corporate entities across multiple jurisdictions. IP law offers partial solutions. Infringement is typically actionable in jurisdictions where the protected right exists and where the harm is felt. For avatars closely linked to a user's identity, harm can be localized to the user's domicile.
- **Interaction with Criminal Law** - An IP-centric approach does not negate the relevance of criminal law. Rather, it complements it. Criminal law addresses societal condemnation and punishment, while IP law addresses control, consent, and remediation. In cases where criminal prosecution is impractical or unavailable, IP remedies can provide meaningful redress.

5. Case Law and Jurisprudential Developments

Digital Characters, Avatars, and Copyright Jurisprudence

Courts across jurisdictions have gradually acknowledged that digital characters and virtual representations may qualify for copyright protection when they demonstrate sufficient originality and expressive specificity. United States jurisprudence recognizes video game characters as copyrightable subject matter, provides a doctrinal foundation for avatar protection. Cases involving games such as *Tetris*, *World of Warcraft*, and *Second Life*⁹ have clarified that virtual

objects and characters are not merely functional code but expressive works capable of infringement.

While these cases did not involve sexual violence, they establish a critical legal premise: unauthorized manipulation, reproduction, or contextual redeployment of a digital character may constitute infringement even in the absence of physical harm. When applied to the metaverse, this principle supports the argument that non-consensual sexual acts involving avatars especially where recorded, streamed, or tokenized constitute unauthorized derivative works and public displays under copyright law.

Roblox, User-Generated Content, and Platform Responsibility

Litigation and regulatory scrutiny surrounding Roblox offers important insights into platform-mediated harms involving minors and avatars. Although much of the legal focus has been on consumer protection and child safety, these disputes implicitly raise IP-centric concerns. Avatars on Roblox are extensively customized, monetized, and socially embedded, functioning as persistent digital identities rather than transient game assets.

Reports of sexualized conduct involving avatars on such platforms underscore the inadequacy of purely contractual governance through Terms of Service. From an IP perspective, the platform's extensive control over avatar architecture, interaction mechanics, and moderation tools positions it as more than a passive intermediary. Where platforms design environments that facilitate close-proximity interactions without robust consent controls, they may contribute to conditions enabling infringement of avatar-related IP and moral rights.

Right of Publicity and Digital Identity Cases

Courts have increasingly grappled with the unauthorized use of digital likenesses, particularly in cases involving video games and virtual simulations. Decisions recognizing athletes' and celebrities' rights of publicity in digital avatars affirm that virtual representations can implicate personality rights even where no physical image is used.

These precedents are directly relevant to metaverse sexual violence. When an avatar closely resembles its user, or when it is widely understood within a community to represent a particular individual, sexualized misuse may constitute misappropriation of identity. This is especially salient where such acts are commercialized through recordings, livestreams, or non-fungible tokens (NFTs), transforming personal violation into economic exploitation.

Although Indian jurisprudence has yet to directly address avatar-based harms, existing doctrine readily accommodates such claims. But, given the increasing participation of Indian users in global metaverse platforms, this doctrinal readiness positions India as a potential leader in IP-centric remedies for digital sexual violence.

⁹ Tetris: how we made the addictive computer game, Pajitnov, A., & Rogers, H. (1989). Tetris. [As mentioned in 0.1.21]

6. Enforcement Mechanisms and Remedies

Enforcement mechanisms indicate who can act and how to prevent sexual assault in the Metaverse.

Platform-Level Enforcement and Notice-and-Takedown – Metaverse Platforms (like VRChat, Roblox, etc.) already operate notice-and-takedown systems for copyright infringement. Extending these mechanisms to avatar sexualization claims would require minimal structural change. Once notified of non-consensual sexual use of an avatar, platforms could be obligated to remove offending content, preserve evidence, restrict perpetrator access and removal of offender’s account. Failure to act upon notice may expose platforms to secondary liability, particularly in jurisdictions that impose affirmative duties on intermediaries once knowledge of infringement is established.

Civil Remedies Under IP Law - An IP-centric framework unlocks a range of civil remedies that are often unavailable or impractical under criminal law. These include injunctions to prevent further misuse of avatars, damages for economic and dignitary harm, account suspension or termination, and takedown of infringing content. Importantly, these remedies are preventative as well as compensatory. Injunctions can halt ongoing harm in real time, a critical advantage in immersive environments where violations can be repeated instantaneously.

Evidentiary Advantages of IP Claims - IP claims benefit from comparatively lower evidentiary thresholds. Screen recordings, server logs, metadata, and platform records can substantiate infringement without requiring proof of physical harm or intent beyond unauthorized use. This is particularly advantageous for survivors who may be reluctant or unable to pursue criminal proceedings.

Psychological Harm, Dignity, and IP Law - Although IP law is traditionally framed in economic terms, modern jurisprudence increasingly recognizes dignitary harm. Moral rights doctrine explicitly protects honor and reputation, concepts closely aligned with psychological well-being. Empirical research demonstrates that victims of avatar-based sexual violence experience anxiety, shame, and loss of agency comparable to offline harassment. By grounding these harms in moral rights violations, IP law provides a doctrinally legitimate pathway for acknowledging psychological injury without stretching criminal definitions.

Toward a Consent-by-Design Model - An IP-centric approach emphasizes consent as a structural principle rather than an after-the-fact defense. Platforms should embed consent mechanisms directly into avatar interaction protocols, including:

- Proximity and touch permissions;
- Recording and streaming controls;
- Clear opt-in systems for avatar modification or replication.

Such measures align with IP’s emphasis on authorization and control, translating legal principles into technical design.

Toward A Unified Theoretical Framework: Avatar-as-IP and Avatar-As-Dignity

This final part of the research is based on recent developments and discussions in the Metaverse which proposes a consolidated theoretical model that situates avatars simultaneously as intellectual property objects and as extensions of human dignity. Traditional IP theory has oscillated between utilitarian justifications (economic incentives) and personality-based theories (author–work connection). Avatar embodiment in the metaverse uniquely activates both strands.

Under the Avatar-as-IP model, avatars are understood as authored, controllable, and economically valuable digital creations. Users invest creative labour, time, and often capital into their construction. Control over use, modification, and context is therefore central. Non-consensual sexual acts violate this control in ways analogous to unauthorized adaptations or public performances. Under the Avatar-as-Dignity model, avatars operate as vessels of identity and self-representation. Sexualized misuse undermines the user’s autonomy, agency, and social standing¹⁰. Moral rights doctrine—particularly integrity and attribution provides the doctrinal bridge between IP protection and human dignity without collapsing avatars into legal personhood.

The fusion of these models allows the law to recognize harm without overextending criminal definitions or resorting to speculative claims about virtual personhood.

Regulatory and Statutory Reform Proposals

Explicit Recognition of Avatar Integrity - Legislatures should clarify that digital avatars and persistent virtual identities qualify as protectable subject matter under copyright and related rights. Statutory explanations or judicial guidelines could explicitly include avatars within the scope of “artistic works” or “digital characters”.

Further, moral rights provisions should be interpreted, or amended where necessary to explicitly encompass prejudicial sexualization and non-consensual contextual use of avatars.

Platform Duties and Co-Regulation - Regulatory frameworks should impose affirmative duties on metaverse platforms, including:

- Mandatory consent architectures for avatar interaction;
- Real-time moderation tools for proximity-based abuse;
- Preservation of evidentiary logs for IP-related complaints;
- Transparent grievance redressal mechanisms.

Rather than imposing blanket criminal liability, this co-regulatory approach aligns with IP’s preventive and corrective orientation.

Cross-Border Enforcement and Harmonization - Given the transnational nature of metaverse platforms, international

¹⁰ Safeguarding human values: rethinking US law for generative AI’s societal impacts,

<https://link.springer.com/article/10.1007/s43681-024-00451-4>

bodies such as WIPO could develop soft-law instruments or model guidelines addressing avatar protection and digital sexual exploitation. Harmonization of moral rights standards would reduce jurisdictional fragmentation and forum shopping.

Relationship with Criminal Law and Feminist Legal Theory - This paper does not deny the importance of criminal law or feminist critiques of sexual violence. Instead, it positions IP law as a parallel and complementary framework. Feminist legal theory has long emphasized consent, autonomy, and power asymmetries- values that resonate strongly with IP's focus on authorization and control.

An IP-centric approach avoids the evidentiary burdens and retraumatization often associated with criminal trials, while still validating the seriousness of the harm. It also foregrounds structural responsibility by platforms, rather than isolating misconduct as purely individual deviance.

Addressing Potential Objections like Risk of Commodifying Sexual Harm - One objection is that framing sexual violence as IP infringement risks commodifying deeply personal harm. This concern is legitimate but overstated. Moral rights doctrine already protects non-economic interests, including honor and reputation. The proposed framework emphasizes dignity and consent, not monetization.

Overreach of IP Law - Another concern is doctrinal overreach. However, IP law has historically adapted to new forms of expression- from photography to software to virtual assets. Avatars represent the next logical extension, not an anomaly.

Platform Chilling Effects - Critics may argue that expanded IP liability could stifle creativity. Yet consent-based interaction does not inhibit creativity; it channels it ethically. Platforms already enforce complex IP rules for music and visual content, demonstrating feasibility.

7. Conclusion

Sexual violence in the metaverse exposes the limits of existing legal categories. Criminal law alone cannot adequately capture the nature of harm inflicted upon avatars that function as authored digital bodies. By reframing such conduct through an intellectual property-centric lens, this article demonstrates that avatars are sites of legally protectable creativity, control, and dignity.

An IP-based approach offers doctrinal coherence, practical enforceability, and normative legitimacy. It empowers survivors with accessible remedies, assigns responsibility to platforms, and preserves the expressive potential of immersive digital spaces. As the metaverse continues to evolve, integrating intellectual property law into the governance of virtual embodiment is not optional it is essential.

8. Future Research Directions

Further empirical research is needed on:

- User perceptions of avatar embodiment and violation;
- Effectiveness of consent-by-design mechanisms;
- Comparative enforcement outcomes between IP and criminal remedies.

Interdisciplinary collaboration between legal scholars, technologists, and psychologists will be essential to refine this framework.

9. Policy Implications And Reform Proposals

This paper proposes several reforms:

- Explicit recognition of avatars as protectable IP subject matter.
- Platform obligations to implement consent-by-design mechanisms.
- Harmonization of moral rights protections in digital environments.
- Development of specialized dispute resolution mechanisms for metaverse IP harms.

Sexual violence in the metaverse represents a profound challenge to existing legal frameworks. By reconceptualizing such harm through an intellectual property-centric lens, this paper demonstrates that avatars are not legally empty vessels but sites of authorship, dignity, and control. An IP-based approach offers doctrinal coherence, practical remedies, and normative clarity, making it an essential component of any comprehensive response to digital sexual violence.

10. Empirical Research Findings And Conclusion

This questionnaire form's part and parcel of an academic research project put forth in order to investigate the awareness, perceptions, and concerns related to rape in the metaverse. A metaverse is an immersive, computer-generated virtual reality space where experimental individuals can interact with digital environments as well as with other users. Popular examples include platforms and applications such as Pokémon Go and Microsoft Mesh, to name a few.

The aim of the research is to try and understand the people's perception and reactions to incidences of sexual misconduct and sexual assault in virtual spaces. Your answers would be help put a spotlight on current levels of awareness, observe possible gaps in the knowledge, and understand public perception towards safety, accountability, and law with relation to the metaverse.

This was designed to be completely anonymous, and no identifying information was, will, or shall ever be collected at any given time. The data would be strictly utilized for research, analysis would be done in universal, and the results would be incorporated into the larger report. The outcome of this study will be aimed at sensitizing the public and feeding into recommendations for potential legal reforms.

The survey revealed from low to moderate awareness on the part of participants concerning the concept of rape in the metaverse. While most respondents were aware of the

concept of "rape" as it applied under physical-world legal theories, fewer are aware of the psychological and emotional harm caused by violations that take place through avatars. A large gap appeared in knowledge as to consent in digital spaces-many of the respondents believed that non-physical acts were "less real" or "less harmful." By contrast, the victim accounts highlighted trauma comparable to that caused by real-world assault, such as anxiety, symptoms similar to PTSD, and social withdrawal.

There were also participants who were confused as to who would be held liable-would it be the platform or the avatar creator or the user-turned-perpetrator? This presents the need for an even clearer legal framework. Importantly, a very large majority of respondents were in support of international regulations and special laws to deal with virtual sexual violence.

78 respondents responded to the survey form in total and that helped get a good understanding the topic and awareness around it.

The study's findings establish that rape in the metaverse is not just an extension of online harassment; it is an equally complex issue involving the intersections of criminal law, psychology, morality, and intellectual property. Lack of adequate definitions of rape in current legal systems leaves victims of real-world avatar violations without recognition or remedy. Enforcement is further staggered by the nonexistence of clear jurisdictional or evidentiary frameworks.

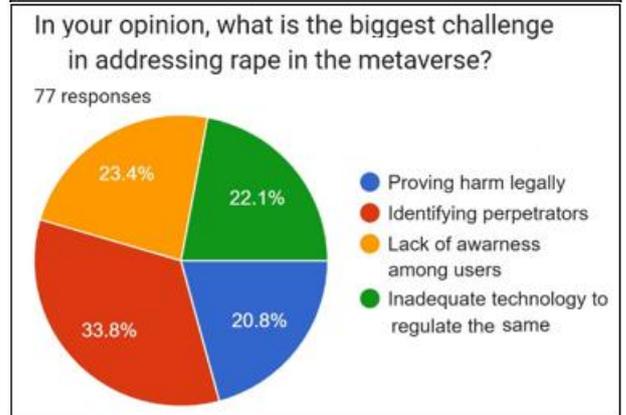
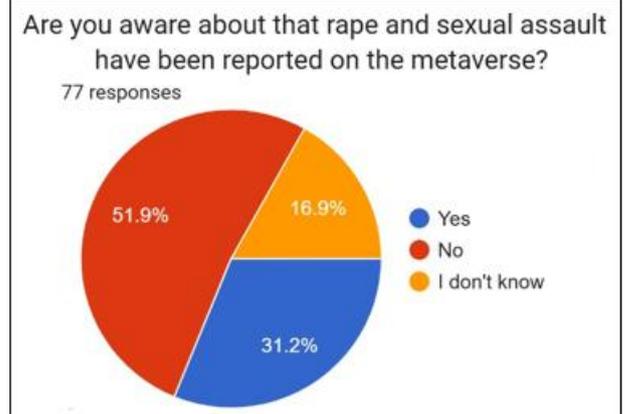
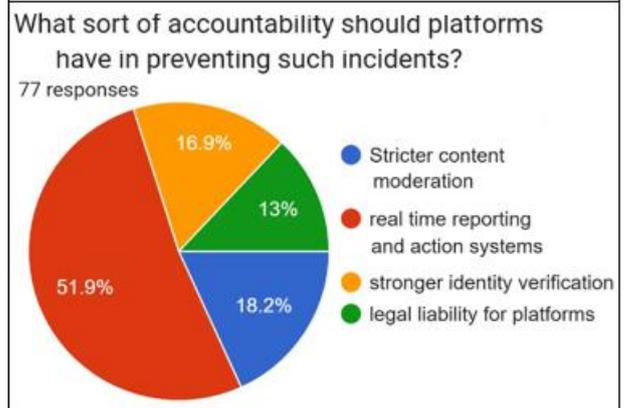
Psychologically, the virtual experience of assault feels real to the victims due to the immersion afforded by VR, thus causing trauma similar to an assault in the physical world. Ethically, the platforms have failed to employ adequate measures after their design and governance became unaccountable. From an IP perspective, avatars and digital identities, usually copyright-protected works, are now being misused, leading to new questions about ownership, consent, and liabilities.

The suggestions are twofold-

- **Legal Reform:** Laws, nationally and internationally, need explicit recognition and criminalization of virtual sexual assaults along with further development of rape to encompass highly immersive digital realms.
- **Platform Accountability:** Technology companies must integrate safety-by-design features.

Acknowledgement

I would like to express my gratitude to my teacher, Prof.Subin Sunderraj, for his constant guidance to help me complete my project and gave me the opportunity to do this wonderful research paper. This is being submitted as part of completing my master's program in LLM in Intellectual Property and Trade Law from CHRIST (DEEMED TO BE UNIVERSITY), Bangalore



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