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VIRTUAL REALITY (VR) AND AUGMENTED REALITY (AR) SEXUAL EXPLOITATION: LEGAL AND ETHICAL CHALLENGES IN REGULATING ASSAULTS IN THE METAVERSE

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I. ABSTRACT

The rapid evolution of immersive technologies of Virtual Reality and Augmented Reality has transformed digital interactions, giving rise to the concept of the metaverse. While this technology offers unprecedented opportunities for socialisation, education and commerce, they have simultaneously created new avenues for sexual assault and exploitation. Incidents of non-consensual virtual groping, child grooming and sexual simulation facilitated through haptic devices highlight the pressing need to address these harms. Unlike traditional cybercrimes, VR/AR facilitated assault blurs the boundaries between physical and digital, raising complex legal, ethical and psychological concerns. This paper critically examines the role of technology in enabling sexual exploitation within the immersive digital environment. It analyses the limitations of the Indian legal framework, such as the Information Technology Act, 2000, BNS 2023 and the POCSO Act, 2012, alongside a comparative insight from jurisdictions like the USA and the European Union. The study highlights gaps in recognition of "virtual assault" as a distinct form of harm, jurisdictional challenges in regulating global platforms, and evidentiary hurdles in prosecution. Further, the paper interrogates ethical dilemmas surrounding consent, anonymity and digital bodily integrity in the metaverse. It advocates a comprehensive international legal framework supported by corporate responsibility measures and technological safeguards. By proposing reforms like a Digital Bodily Integrity Charter and consent-driven design systems, the paper aims to build a safe, inclusive and rights-based metaverse.

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II. KEYWORDS

Digital Bodily Integrity, Metaverse, Metaverse Regulation, Sexual Exploitation, Virtual Reality (VR).

III. INTRODUCTION

In the early decades of the 21st century, the world entered a new era of digital embodiment through Virtual Reality (VR) and Augmented Reality technologies. Together, these systems have evolved into the metaverse, an interactive three-dimensional digital universe that integrates sensory experience, social connectivity and human emotion. What began as experimental gaming now shapes education, commerce, healthcare, and social life. Yet, as McGalynn and Rigotti warn, this convergence has birthed unprecedented vulnerabilities: immersive technologies have become fertile grounds for sexual violence and exploitation.[2]

The concept of meta-rape, a non-consensual, embodied sexual intrusion within virtual environments, captures the essence of this new threat. Earlier forms of online abuse, such as cyberstalking or revenge pornography, were mediated through text or images. In contrast, VR and AR introduce haptic embodiment, where a user's avatar becomes a sensory extension of their physical body. This blows the distinction between virtual and physical harm, rendering sexual aggression in digital space deeply personal and psychologically injurious.[3]

Despite clear evidence of psychological and emotional trauma suffered by the victim, the existing legal system, including frameworks in India, lacks explicit recognition of immense sexual exploitation. Section 351 of the Indian Penal Code (IPC)[4] which is now Section 130 of Bhartiya Nyaya Sanhita (BNS), limits assault to physical contact with a person, leaving virtual assault legally invisible.[5]

[2] Clare McGlynn & Carlotta Rigotti, From Virtual Rape to Meta-Rape: Sexual Violence, Criminal Law and the Metaverse, 45 Oxford J. Legal Stud. 554,556 (2025)
[3] Carolyn M. Porta et al., Sexual Violence in Virtual Reality: A Scoping Review, 20 J. Forensic Nursing 66,68 (2023).
[4] Indian Penal Code, No. 45 of 1860, Section 351
[5] Bhartiya Nyaya Sanhita, No. 45 of 2023, Section 130

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The main objective of this study is to examine the role of emerging technologies, especially VR and AR Role in enabling new forms of sexual exploitation. Also, to critically assess the adequacy of Indian and global legal frameworks governing immersive environments while exploring the ethical implications of consent, embodiment and digital identity in the metaverse. And comprehensive reform grounded in the protection of digital body integrity.

This research situates sexual exploitation within the next frontier of human interaction, the embodied internet. It draws on feminist legal theory, digital ethics and comparative law to reimagine the meaning of consent, privacy and safety. In doing so, it advances the calls made by jurists and scholars urging society and the legal system to explicitly recognise immersive sexual violence, the act of sexual harassment or assault occurring in a virtual or augmented reality environment, being a real form of harm. By naming it as so, it can then be legally recognised and regulated rather than ignored because it doesn't fit the criteria like 'physical assault' or 'cyber harassment'.

By bridging jurisprudence, psychology and technology, this paper contributes to the formation of a Digital Bodily Integrity Charter, ensuring that dignity and safety extend beyond the physical world and into every digital dimension.

A. Research Objectives

1. This study aims to examine the emerging phenomenon of sexual exploitation within Virtual Reality (VR) and Augmented Reality (AR) environments, particularly within the metaverse.
2. It seeks to assess the adequacy of existing legal frameworks in India and comparative jurisdictions in addressing such harms.
3. The paper further aims to analyse the ethical implications of consent, anonymity and digital embodiment, and to propose legal and policy reforms grounded in the principle of digital bodily integrity.

B. Research Questions

This paper seeks to address the following questions:

1. Whether acts of sexual exploitation in VR and AR environments can be legally recognised as actionable offences under existing legal frameworks?
2. To what extent do Indian laws, including the Bhartiya Nyaya Sanhita, Information Technology Act, 2000, and POCSO Act, 2012, address immersive sexual harms?
3. What are the key legal and jurisdictional challenges in regulating virtual sexual violence in the metaverse?
4. How can the concept of digital bodily integrity reshape legal and ethical responses to such harms?

C. Research Methodology

This research adopts a doctrinal and analytical methodology. It primarily relies on the examination of statutory provisions, judicial decisions, and scholarly literature to evaluate the legal position concerning VR and AR-based sexual exploitation. A comparative approach is also employed to analyse legal frameworks in jurisdictions such as the United States, the United Kingdom, and the European Union. Secondary sources, including academic articles, policy reports, and documented case studies, have been utilised to understand the technological and ethical dimensions of immersive environments. The study further incorporates an interdisciplinary perspective by drawing upon feminist legal theory and digital ethics to contextualise the concept of digital bodily integrity.

IV. UNDERSTANDING TECHNOLOGY FACILITATED SEXUAL EXPLOITATION IN VR/AR

The metaverse, often described as the "embodied Internet", combines VR and AR technology to create a shaped, interactive environment where users engage through various avatars and haptic devices[6]. It transcends traditional cyberspace by enabling multisensory experiences where users see, hear, and feel their surroundings. This

[6] Clare McGlynn & Carlotta Rigotti, supra note 1, at 557

realism makes the act of sexual aggression profoundly invasive, as victims experience a visceral sense of being violated.[7]

A. Form of Sexual Exploitation in VR/AR

1. **Virtual Groping and Harassment of Avatars:** Instances where predators use an avatar to make unsolicited sexual advances gestures of physical connection in a virtual environment. Victims frequently report feelings of real psychological violation as VR headsets and haptic suits can estimate physical touch.
2. **Non-consensual Sexual Simulations:** Use of programmed action or script within the VR platform to simulate sexual action without consent raises questions about consent in digital space where an avatar may not represent the actual user (for example, a child after or anonymous profiles).
3. **Child Exploitation and Grooming in VR/AR Platforms:** Predators exploit children through games, VR chat rooms and immersive learning platforms. Cases of grooming, coercion into explicit acts, and recruitment into trafficking networks have been reported globally at every level.
4. **Sextortion in Immersive Environments:** Victim forced into a performance sexual act in VR/AR, with threats of recording or distributing their avatar-based interactions, blurs the lines between digital and physical extortion.
5. **Haptic Technology Exploitation:** Devices such as hepatic suits, gloves designed to simulate touch, can be misused to inflict unwanted sensations of sexual content, which raises unprecedented concerns of digitally mediated bodily harm.

B. Case Studies and Reported Incidents

1. **Early Reports of Virtual Harassment:** Initial studies have shown that online harassment, particularly against women, has been prevailing since the advancement of social media and multiplayer games. However, the

[7] Carolyn M. Porta et al., Supra note 2 at 68

metaverse has amplified the risks due to its immersive embodiment of avatars and sensory experiences. A Survey conducted as early as 2018 revealed that nearly 49% of female real users report sexual harassment while using virtual platforms, including non-consensual touching and explicit verbal abuse.[8] By 2021, reports indicate that Harassment occurs approximately every seven minutes in Meta Horizon Worlds.[9]

2. **Meta Horizon Incident (2021):** A female beta tester reported being virtually groped by multiple avatars in the Meta Horizon world platform. Meta responded by introducing a personal boundary feature, but critics argue it is reactive rather than preventive.[10]

3. **The "Sum of Us" (2022):** The Sum of Us report (2022) brought significant public attention to the reality of virtual sexual violence. Researchers documented harassment on Meta's Horizon Worlds platform, where within an hour of entering the space, a female researcher's avatar was dragged into a private room and subjected to assault and verbal abuse by other users in the presence of onlookers.[11]

4. **Roblox Exploitation Cases:** Although primarily AR-based, Roblox has faced multiple lawsuits over predators exploiting child players for sexual purposes. Numerous complaints of grooming and sexualizing play among minors reveal the intersection of technology and child vulnerability.[12]

5. **South Korea Metaverse Exploitation Cases (2022):** In a landmark criminal case, a 30-year-old man in South Korea was sentenced to four years of imprisonment for producing and storing sexual exploitation material involving minors he lured through the metaverse platform Zepeto. The

[8] Pluto VR & The Extended Mind, Virtual Harassment:The Social Experience of 600+ Regular Virtual Reality Users (2018)
[9] Center for Countering Digital Hate, Facebook,s Metaverse: One Incident of Abuse and Harassment Every 7Minutes (2021), https://counterhate.com/blog/new-research-shows-metaverse-is-not-safe-for-kids/
[10] Yasmin Ahmed, Woman Complains She Was Virtually Groped on Meta's Horizon Worlds, Company Says Improving Interface, India Today (Dec. 20, 2021)
[11] Sum of Us, Metaverse:Another Cesspool of Toxic Content (2022)
[12] Gurmeet Kaur, Internet Crime Against Minors and Legal Framework in India (2022)

perpetrator misrepresented his age through avatar, used virtual gifts for grooming and coerced minors into creating sexualised digital content[13] This case marked one of the first judgments recognising the virtual grooming in exploitation facilitated by the immersive technology.

6. **First British Police Investigation into Virtual Rape (2024):** In January 2024, British Authorities opened up the first investigation into the virtual rape of a girl under the age of 16 who reported being assaulted by multiple users in a VR space.[14] While no physical injury occurred, investigators and psychologists noted that the victim suffered trauma comparable to the real-world sexual assault due to the immersive Sensory experience. This case highlights the inadequacy of the current legal framework that fails to acknowledge psychological harm as actionable in the digital environment.

7. **Platform-Level Responses:** Following global criticism, Mata introduced safety features such as "Safe Zone" and "Personal Boundary" functions as protective mechanisms that prevent Avatars from unwanted proximity and contact.[15] However, despite such measures recurrence of incidents suggests that safe regulations by the platform are insufficient, necessitating stronger statutory intervention and a transnational governance mechanism.

C. Characteristics of VR/AR Exploitation

1. **Embodiment:** The defining feature of VR/AR exploitation is the user's psychological immersion with the digital avatar; with the help of motion-tracking, haptic feedback and sensory immersion, victims experience virtual assault as though it occurred on their own bodies. As embodiment creates a psychological authenticity of harm, making virtual assault neurologically comparable to physical violence. Studies in cognitive neurological science show that VR activates the same neurological pathway

[13] D.Park, S. Korean Man Sentenced to Four Year for Sexual Abuse in Metaverse, Forkast (2022)
[14] R.Camber, British police Probe Virtual Rape in Metaverse: Young Girls Digital Persona "Is Sexually Attacked by Gang of Adult Men", Daily Mail (Jan 2024)
[15] V.Sharma, Introducing a Personal Boundary for Horizon Worlds and Venues, Meta (2022) https://about.fb.com/news/2022/02/personal-boundary-horizon/

associated with fears and trauma as real-life aggression, intensifying emotional distress.[16]

2. **Anonymity:** The anonymity provided by avatars and encrypted communications enables perpetrators to act with near-total impunity[17]. The Avatars conceal identity, location and even gender of a person, making it challenging for the victim and authority to trace the offender. In many platforms, users can create multiple avatars and alter their digital appearance, instantly frustrating both forensic trackers and legal accountability.[18]
3. **Borderless Jurisdiction:** As VR/AR interaction occurs on the Internet, it is not bound by a single country. The victim and the perpetrator may be in different parts of the world connected through one virtual platform. As a result, it is unclear which country's law applies, and which court has the authority to investigate and punish the offenders. [For example: A person in India is harassed in a VR environment by someone in the U.S. The question remains "which country's cyber law will be applicable".]
4. **Evidence Barriers:** VR/AR activities are highly interactive and take place in immersive 3D Space, not just text or images. It is difficult to record or preserve that kind of evidence in a way that the court can accept. As a result, without proper digital evidence (like video capturing or server logs) proving the crime became challenging. [Example- Unless the VR session was recorded, it is hard to prove that an act of virtual assault actually occurred]

Together, these characteristics reveal that VR/AR exploitation is not a mere extension of the existing cybercrime but a distinct paradigm of embodied harm,

[16] M.Slater, Place Illusthe ion and Plausibility Can Lead to Realistic Behaviour in Immersive Virtual Environments, 364 Phil. Transactions Royal Soc'y B 3549, 3552 (2009)
[17] John Danaher, The Law and Ethics of Virtual Sexual Assault, 23 Ethics & Info. Tech. 133, 140 (2021).
[18] Vinayaka Malhotra,That's Assault! Extension of Criminal Law to the Metaverse, SSRN Working Paper (2023)

demanding legal invocation, cross-border regulation and forensic preparedness.

V. CONCEPT OF DIGITAL BODILY INTEGRITY

Building on feminist theory and Danaher's ethical framework, the principle of digital bodily integrity asserts that users, digital embodiments, deserve the same respect as physical bodies[19]. Violation of Avatars is not symbolic but a real intrusion into the user's sense of self. Recognising digital bodily integrity reframes VR/AR sexual exploitation as an extension of fundamental human rights rather than a mere technological anomaly.

VI. PSYCHOLOGICAL, ETHICAL AND SOCIETAL IMPACTS

A. Psychological Harm

Empirical research confirms that victims of immersive sexual violence experience trauma analogous to physical assault.[20] The realism of VR and AR, enhanced by haptic feedback, motion tracking and spatial audio, creates an illusion of bodily presence that transforms digital harm into lived experience. Victims often exhibit symptoms such as post-traumatic stress, dissociation, fear, anxiety and sleep disruption, identical to the survivors of offline assaults.

Furthermore, the immersive environment collapses the distinction between the real and virtual self. When an avatar, which is a user's psychological extension, undergoes violence, the individual experiences an assault on identity and bodily autonomy.[21] For minors, the harm deepens their sense of safety, bodily privacy, and trust in technology are fundamentally eroded. Gurmeet Kaur's finding (2022) highlights how children's developing cognition amplifies vulnerability, causing long-term psychological imprinting from virtual exploitation.

[19] John Danaher, supra note 16 at 140 (2021)
[20] Carolyn M. Porta et al., supra note 2 at 70
[21] Gurmeet Kaur, supra note 11

B. Ethical Dilemmas

1. **Consent in Digital Embodiment:** In physical reality, concern is based on clearly verbal or bodily cues and spatial boundaries. However, in VR, embodiment blurs these boundaries. A user may feel violated even when the act occurred virtually because their avatars function as an extension of their body and identity. McGlynn and Rigotti argue that the absence of physical contact does not eliminate the experience of harm. They emphasise that the emotional and psychological impact should define whether an act is a violation, not by the physical meeting, thus the law and ethics must adapt to recognise "digital non-consent" as a legitimate breach of autonomy.[22]
2. **Anonymity and Accountability:** The anonymity of the avatars and virtual platforms enables moral disengagement. The perpetrators convince themselves that "it isn't real" or that they are merely playing a game. This ethical fallacy erases the victim's suffering and shifts the focus away from responsibility.[23] Platforms like Meta's Horizon Worlds or VRChat often fail to impose robust user accountability measures, which allows harmful behaviour to proliferate unchecked. Hence, ethical responsibility extends to the developers and companies, who must implement "*safety-by-design*" principles such as proximity limits, mandatory consent cues or a robust moderation system.
3. **Digital Bodily Integrity:** Building on Malhotra's reasoning, the ethical notion of digital bodily integrity recognises that one's avatar is a juristic extension of selfhood, representing personal agency and identity in a virtual sphere.[24] Assaulting or harassing an avatar, therefore, symbolically and psychologically assaults the individual behind it. Respecting digital bodily integrity requires recognising an avatar as a protected extension of

[22] Clare McGlynn & Carlotta Rigotti, supra note 1 at 573
[23] Id. at 575
[24] Vinayaka Malhotra, supra note 17

personhood deserving the same moral and potentially legal respect as physical bodies.

C. Societal Implications

1. **Normalisation of Violence:** When acts of virtual sexual aggression are dismissed as "harmless fun", society risks normalising sexual violence in both digital and physical contexts[25]. Exposure to repeated sexual aggression or experience of virtual sexual assault may desensitise the user, reducing empathy for real-world victims, and weakening social condemnation of sexual misconduct.
2. **Erosion of Trust in Technology:** If they continuously experience harassment and assault in VR/AR, they may begin to distrust technology as a safe and empowering space. This undermines innovation as people withdraw from engaging with new platform educational opportunities or professional use of virtual technology. Consequently, technological progression becomes socially regressive and becomes accessible only to those not vulnerable to digital harm.
3. **Corporate Ethics:** Corporate actors, as revealed in the Sum of Us Report,[26] often respond to virtual sexual assault cases by blaming users for not enabling safety features rather than improving systematic safeguards. This deflection of responsibility weakens public confidence in corporate governance and ethics. Companies that fail to create inclusive, safe environments violate the social contract underpinning responsible technological innovation.

D. Ethical Theories Applied

1. **Deontological Perspective (Kantian Ethics):** From duty duty-based view, immersive sexual violence inherently violates the moral duty of treating others as ends in themselves, not as means to gratification. The absence of physicality does not erase the moral speech; by corrosion, manipulation and

[25] Clare McGlynn & Carlotta Rigotti, supra note 1 at 578
[26] Sum of Us, supra note 10

disrespect of autonomy make the act becomes ethically impermissible. [27] In the context of VR/ AR sexual exploitation, even though the act is happening in the virtual world and not physically, it is still morally wrong because it disrespects a person's autonomy, uses them as an object for someone's pleasure rather than respecting their dignity as a person and involves coercion or manipulation, which violates moral duty. Even without physical contact, the ethical violation exists because the programme has acted very coercive manner and reduced another human being to a tool for gratification.

2. **Utilitarian Perspective:** Utilitarianism is a consequence-based theory. It analysis weighs the aggregate harm versus the benefits. It judges based on the action of the overall outcome, whether they maximise happiness and minimise harm for the greatest number of people.[28] When we looked into immersive sexual exploitation from a utilitarian lens, it causes harm through trauma, anxieties, exclusion and fear among victims and users, also, it discourages others (especially children and women) from participating in virtual space, and it damages public trust in technology. These harms outweigh any supposed "benefit" (like entertainment or commercial gain) that such unregulated behaviour might bring. Hence, from a utilitarian standpoint, immersive sexual violence is ethically unacceptable because it reduces the total well-being of society.

3. **Feminist Ethics:** The feminist ethical framework emphasises rational autonomy and power dimensions. Feminist ethics looks at power relationships, general inequality and how moral problems affect women and marginalised groups differently. It emphasises the idea that people's freedom depends on the social system around them.[29] In context, virtual sexual exploitation is not just an individual moral, but it reflects and

[27] Onora O'Neill, Kantian Approaches to Some Famine Problems, in Matter of Life and Death:New Introductory Essays in Moral Philosophy 259 (Tom Regan ed.,1980)
[28] Jeremy Bentham, An Inroduction to the Principles of Morals and Legislation 14-17 (Oxford Univ. Press 1970) (1789)
[29] Miranda Fricker, Epistemic Injustice: Power and the Ethic of Knowing 1-7 (Oxford Univ. Press 2007)

reproduces the patriarchal power structure that already exists in the physical world. It shows how men's control over women's bodies extends into the digital environment. It silences victims, especially when their experiences are dismissed as "not real". This dismissal is called epistemic injustice, i.e. denying someone experience or knowledge because of bias or power imbalance. Thus, feminist ethnic view immersive sexual violence as part of a continuum of gender-based violence, not something separate or less serious because it happens online. The intersection of psychology, ethics and social justice in VR/ AR exploitation underscores a central truth: technology does not neutralise morality, it magnifies it. The immersive nature of virtual spaces transforms digital misconduct into embodied trauma, demanding a reorientation of law, design and ethics around human rights principles. The legal system must evolve to validate victims' experience of virtual harm as legitimate injury while technology developers bear the moral duty to enable consent, safety and respect into the architecture of the metaverse. Only by aligning psychological understanding with ethical governance can society prevent the normalisation of virtual abuse and ensure the metaverse as a realm of empowerment rather than exploitation.

VII. LEGAL FRAMEWORK ANALYSIS

As technology increasingly mandates human experience, legal systems face a critical shortfall in addressing sexual violence within immersive environments. Existing criminal and cyber laws were conceptualised for tangible conduct and textual cyber-crime, not for embodied digital harm that merges psychological and virtual realities.[30] This gap leaves victims of "meta-rape" and virtual sexual exploitation without redress. As the law struggles to define whether an avatar's violation constitution is an actionable offence.

[30] Caroly M Portaet al., supra note 2 at 72

As the metaverse expands, encompassing education, commerce and entertainment, the absence of a clear statutory definition means that the virtual sexual assault risks undermining the universality of human rights in digital spaces.

A. Indian Legal Framework.

India's legal response to sexual exploitation is robust in the physical and textual cyber domains, but inadequate for immersive realities. A synthesis of existing statutes revealed conceptual rigidity that ties criminality to tangible contact, thus excluding embodied digital violations.

1. **Bhartiya Nyaya Sanhita, 2023:** Section 74 and Section 75 of the Bhartiya Nyaya Sanhita, 2023[31], (previously Section 354 and Section 354 A of the Indian Penal Code, 1860[32]), criminalise the use of criminal force and assault on women with the intention to outrage her modesty. However, Section 130 BNS, 2023 (previously Sections 351 of IPC, 1860)[33], which defines "assault", presupposes the use of force directed towards a "person" in a physical space, thereby implicitly assuming tangible presence[34]. This statutory language failed to encompass an avatar-based or digitally embodied conduct, where the offender and the victim interact through immersive virtual representation rather than direct physical contact. Vinayaka Malhotra (2023) proposes that avatars representing users' agency and identity in an immersive environment should be recognised as a juristic person, thereby extending legal protection to digital embodiment.[35] This interpretive expansion would align with the Supreme Court's progressive reading of constitutional rights in Justice K.S. Puttaswamy (Retd.) & Anr. v. Union of India & Ors., (2017) 10 SCC 1,[36] where privacy was held intrinsic to dignity.

[31] Bhartiya Nyaya Sanhita, No. 45 of 2023, Section 74, 75
[32] Indian Penal Code, No. 45 of 1860, Section 354, 354 A
[33] Indian Penal Code, No. 45 of 1860, Section 351
[34] Bhartiya Nyaya Sanhita, No. 45 of 2023, Section 130
[35] Vinayaka Malhotra, supra note 17
[36] Justice K.S. Puttaswamy (Retd.) & Anr. v. Union of India & Ors., (2017) 10 SCC 1

2. **Information Technology Act, 2000:** The IT Act governs electronic communication and content regulation, Section 66E, 67 and 67A-67B,[37]addresses privacy violation and obscene digital material, yet no provision presupposes static content images, videos or messages and fails to capture dynamic interaction, sexual violation, such as avatar groping or haptic assault. The acts framework prioritises content removal and intermediary liability over victim-centric remedies. Since immersive sexual violence involves real-time conduct rather than disseminated material, its omission from the IT Act creates a profound legislative vacuum.
3. **Protection of Children from Sexual Offences (POCSO) Act, 2012:** The POCSO Act in India is a cornerstone of child protection litigation. While its definition of sexual assault is intentionally broader, it still requires physical contact. Immersive grooming, where predators use child avatars for coercion and fall outside its current textual interpretation. This gap is alarming, given the rise of metaverse-based child exploitation cases globally.
4. **Judicial Limitations:** Judicial limitation refers to how Indian courts have not yet directly addressed crimes occurring in virtual and immersive environments (like VR or the Metaverse). Although India has important judgments on online expression and cyber laws, such as Shreya Singhal v. Union of India, (2015) 5 SCC 1[38], those decisions mainly dealt with freedom of speech versus censorship on the Internet, not the question of virtual and embodied offences, where harm occurred through avatars on immersive technology. Without judicial precedent or interpretive activism, courts are still restricted by old laws that were written for the physical world, not the digital one. Unless the judges begin to interpret the law more broadly through judicial activism or creative legal reasoning, victims of immersive

[37] Information Technology Act, No. 21 of 2000, Section 66E, 67, 67A-67B
[38] Shreya Singhal v. Union of India, (2015) 5 SCC 1

or virtual assault will continue to lack remedies, as the current definition of "assault" or "force" applies neatly to the virtual experience.

B. Global Comparative Study

1. **United States:** The Violence Against Women Act (VAWA) provides extensive protection against sexual harassment and stalking, both online and offline[39]. Yet does not extend to avatar-based or haptic offences, which lack the element of physicality. Moreover, the fragmented state-federal system complicates the regulation of the global metaverse platform.
2. **United Kingdom:** The *Online Safety Act 2023* imposes a statutory duty of care on tech companies to mitigate online harm. [40]However, its scope is limited to textual and visual content, leaving immersive sexual aggression outside its definitional purview. As McGlynn and Rigotti notes, the omission reflects a legal hesitance to treat digital embodiment as corporeal experience.
3. **European Union:** The Digital Services Act (Regulation (EU) 2022/2065), adopted on 19 October 2022 and fully applicable from 17 February 2024, and the General Data Protection Regulation (GDPR) collectively ensure data protection and accountability for online platforms.[41]Yet neither law recognises embodied psychological harm or consent violation arising from VR/AR interaction. The EU's regulation emphasises content modification rather than conduct underscores a structural blind spot in protecting users' bodily autonomy online.
4. **International Conventions:** The *Budapest Convention on Cybercrime (2001)* remains the primary international instrument for digital offence. [42]Although it facilitates cross-border cooperation, its textual focus on

[39] Violences Against Women Act of 1994, Pub. L. No.103-322, 108 Stat, 1902 (U.S.) amended by Violence Against Women Act Reauthorization Act of 2022.
[40] Online Safety Act 2023, c. 34 (UK)
[41] Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 Oct 2022 on a Single Market for Digital Services. (Digital Servicea Act)
[42] Convention on Cybercrime, Nov. 23,2001, ETS no. 185 (Budapest Convention)

"computer data" and "information systems" predates the immersive era. Without amendment, this Convention cannot encompass the experiential harm of *meta-rape* or virtual grooming.

C. Evidentiary and Jurisdictional Challenges

The forensic and Judicial obstacles in prosecuting VR/AR sexual crimes are formidable:

1. **Proof of Embodied Harm:** Unlike images or chat, immersive interactions are ephemeral. Catching evidence requires recording real-time data, voice log, and heptic sensor inputs, all of which change privacy norms and admissibility standards.[43] The psychological authenticity of trauma is often dismissed in the absence of physical proof.
2. **Cross-Border Complexity:** Offenders and victims frequently inhabited different legal jurisdictions, while the platform may be hosted in yet another. This transnational diffusion blurs accountability. Without a unified juridical framework, virtual crime exists in a legal limbo.
3. **Corporate Shielding:** Most metaverse platforms are owned by multinational corporations with headquarters outside the victim's jurisdiction. These terms of service often include liability waivers, allowing companies to evade legal consequences for user misconduct.

Together, these challenges create an ecosystem where immersive exploitation thrives unchecked.

Across jurisdictions, the law remains reactive and fragmented, a patchwork ill-suited for embodied digital realities. The Legal system must evolve beyond the binary of physical versus virtual harm and embrace the principle of digital bodily integrity as a fundamental right.[44]

In India, reform could begin by amending the BNS and IT Act to include immersive sexual assault as a distinct offence, also by recognising avatars as protected judicial

[43] Clare McGlynn & Carlotta Rigotti, supra note 1 at 574
[44] Id. at 579

representations of individuals. Integrating forensic statements for capturing virtual interactions as evidence and expanding international cooperation under the Budapest Convention framework.

Globally, coordinated regulatory development and corporate accountability are essential. As immersive technology blurs boundaries between physical and digital, the integrity of law itself depends on its capacity to evolve with human experience.

VIII. ROLE OF TECH COMPANIES AND PLATFORM

The evolution of immersive technologies has placed tech corporations at the heart of digital ethics. These entities, Meta, VRchat, Roblox and other XR platforms, are not merely facilitations but architects of virtual environments and social interaction, commerce, and identity construction occur. With this creative power comes profound responsibility. Therefore, they bear both ethical and legal responsibility to protect users from virtual sexual violence.

A. Current Corporate Safeguards

1. **Meta Platforms Inc.:** Meta's 2022 introduction of the personal boundary feature in Horizon Worlds was a landmark acknowledgement of virtual harassment. It automatically enforces a 4-foot distance between avatars to prevent unwanted physical proximity. [45]However, critics argue that this measure externalises responsibility and requires the victim to activate the safety feature rather than addressing systematic causes. The Sum of Us report 2022 documented multiple incidents where avatars experience stimulated groping and assault, demonstrating the limits of consent-based toggles in spaces designed for open interactions.
2. **VRChat:** The platform offers options such as mute, block and safety shield, but the enforcement mechanism remains reactive.[46] Research has found that grooming and harassment incidents persist due to the absence of proactive

[45] Meta, Responsible Innovation and XR Safety Feature (2022), https://www.meta.com/en-gb/actions/responsible-innovatiovigilance,n/
[46] Center for Countering Digital Hate, Exposing the harms of VRChats: Grooming Harassment and abuse (2021)

moderation. Moreover, perpetrator often exploits the anonymity of Avatars and voice modulators to evade detection, amplifying the psychological impact on victims.

3. **Roblox:** With its younger user demographic, Roblox faces distinct vulnerability. Despite employing AI-driven modification and parental control, the platform has faced repetitive litigation for enabling child exploitation.[47] Legal scholars highlight that reliance on parental supervision cannot be substituted for corporate accountability, especially when platforms' algorithms expose minors to adult-themed content.
4. **Other XR Platforms:** Smaller and independent XR developers have introduced "safety zones", "panic buttons", and user reporting tools, but these safeguards depend on victim vigilance, reinforcing systemic inequity.[48] These reactive modal burdens victims to pre-empt or respond to harm rather than prevent it through design.

B. Challenges in Corporate Regulation

1. **Real-time monetisation:** Immersive space evolves faster than regulatory and algorithmic responses. AI moderation struggles to detect non-verbal gestures or haptic abuse, while it often occurs in milliseconds[49].
2. **Data privacy vs Oversight:** Effective monitoring may require recording of spatial and sensory data, yet this conflicts with users' privacy guarantees. The ethical tension between surveillance and safety remains unresolved[50]
3. **Profit Incentives:** Corporate priorities often tilt towards user retention and monetisation. As engagement correlates with revenue, companies may underinvest in safety measures, which could disrupt user experience.

These challenges underscore that self-regulation is inherently conflicted, where companies' policies themselves while driven by profit maximisation.

[47] Gurmeet Kaur, supra note 11
[48] Carolyn M. Porta et al., Supra note 2 at 69
[49] Id. at 71
[50] Vinayaka Malhotra, supra note 17

C. Ethical and Legal Accountability

This section outlines standards that companies are expected to follow, connecting ethical responsibilities with legal obligations.

1. **Duty of care:** Corporations must design their platforms with safety in mind ("safety by design"), for example, consent checks, automatically set personal boundaries or harassment detecting tools should be built into the platforms and not be given as optional features.
2. **Transparency and Reporting:** Platforms should publish regular reports showing how many harassment cases occurred how many were resolved, and how they improve it will increase accountability and public trust in the website and technology.
3. **CSR Integration:** Addressing sexual violence and online harm should be a part of Corporate Social Responsibility (CSR). Meaning safety is not just a compliance issue but a moral and social duty for tech companies.

D. Positive Development

Despite the problems, there has been some progress has been made globally,

1. **AI tools:** Some companies now use AI to detect aggressive gestures, tone or movement in VR space. For instance, if someone leans too close or uses aggressive language, the system issues a warning or temporarily freezes the interaction.
2. **Consent-based system:** Newer features like "panic exit" instant escape from the virtual space, and "consent-driven proximity" interaction, only possible with mutual consent, are being introduced to make the metaverse safer.[51]

These developments signify a paradigm shift towards recognising virtual safety as an integral element of the platform design rather than a peripheral add-on.

[51]Meta, supra note 44

It can be observed that despite current efforts to regulate behaviours and safety in the Metaverse (VR/AR), an insufficient and stronger shared regulation model is needed. The model should integrate:

1. Statutory minimum safety standards
2. Independent audit of content moderation
3. User-centric redressal mechanism and
4. Cross-border data cooperation for enforcement

Ultimately, the legitimacy of the metaverse as a social and economic frontier hinges on its ability to safeguard digital bodily autonomy. The ethical governance of tech companies is not merely an operational issue; it is a defining test of human rights in the digital age.

IX. RECOMMENDATION AND WAY FORWARD

This chapter opens by highlighting the gap between technological advancement and legal protection. While technologies such as virtual and augmented reality are evolving rapidly, legal frameworks have not developed at a comparable pace to address emerging forms of exploitation. Therefore, to effectively address sexual exploitation in the metaverse, there is a need for an integrated model that combines law, to establish enforceable standards; ethics, to ensure moral responsibility; and technology, to implement effective safety mechanisms.

A. Legal Reforms

Some specific legal changes that should be made in India and globally to ensure accountability in virtual spaces:

1. **Recognising virtual assault as a crime:** The Bhartiya Nyaya Sanhita and the Information Technology Act should be amended to treat immersive sexual assault. For example, unwanted virtual touching through avatars or haptic devices should be treated as a criminal offence. This would close the legal gap where such acts are currently not covered.

2. **Haptic Technology Regulation:** Devices that stimulate touch in VR (like a haptic suit or gloves) must follow strict safety standards to prevent misuse of sexual harassment or assault in a virtual environment
3. **Child protection:** POCSO Act should be updated to cover virtual grooming, avatar-based child expectation, and any kind of sexual activity involving digital representation of minors.
4. **Global Cooperation:** There should be an international law framework. For example, an UN Model Law on Immersive Cybercrime, which can be based Budapest Convention to ensure cross-border enforcement and corporations, since metaverse crime often transcends national borders.

B. Ethical and Conceptual Innovations

Moving beyond law to discuss the moral and philosophical framework that should guide how people and companies behave in meta metaverse.

1. **Digital bodily integrity charter:** A proposed international declaration recognising every individual's right to dignity, consent, and control over their digital body or avatar. This would act as a human rights charter in the virtual space.
2. **Consent protocol:** Platform should implement opt-in settings, the user must choose to engage in physical or social interaction and allow real-time withdrawal of consent, stopping any ongoing interaction immediately if the user feels uncomfortable.
3. **Intersectional feminist lens:** Safety policies for extended reality (XR) must be inclusive, taking into account how gender, age, disability, and identity can vulnerability to exploitation. This insured protection to all kinds of users.

C. Technological Safeguard

These recommendations focus on the use of technology as a protective tool:

1. **AI-driven modification:** Artificial intelligence can detect abusive language gestures or interactions in real time and intervene automatically.

2. **Secure evidence capturing:** Introduce secure evidence capturing system that can record abusive incidents securely, so the data can be used as admissible evidence in legal proceedings.
3. **Customizable safe zone:** where users should be able to set personal space boundaries in VR, automatically blocking avatars from coming too close.
4. **Parental controls:** Strengthening child safety through age restriction, education programmes and parental monitoring on metaverse platforms accessible to minors, helping in preventing grooming and child exploitation.

Collaborative governance emphasises sharing responsibility among these actors. Government must create and enforce legal standards at the same time, and corporations should comply with those standards and ensure safe platform design. Whereas civil society (NGO, researchers and universities) must act as watchdogs, conducting independent audits, creating awareness and ensuring accountability. In essence, no single actor can solve the issues alone, but it's required a joint force between all stakeholders is required.

D. Way forward

Moving forward, present future vision to ensure that human rights grow together, we need anticipatory governance of forward forward-looking approach that updates the law before problems arise. The key step forward includes adopting the digital body integrity charter to enshrine users' rights. Establishing a co-regulated safety framework (shared by the state and corporation). Building international consensus to address global digital crime.

Is the ultimate code to create a safe, ethical, and human-centred metaverse. A digital ecosystem where consent, dignity, and accountability are foundational values in ensuring that the programme is technology that never comes at the cost of human rights.

X. CONCLUSION

The Metaverse and extended reality have blurred the line between physical and digital experience, giving rise to new forms of sexual violence, which causes really psychological and emotional harm despite occurring through avatars and haptic devices. Current legal systems, such as Indian BNS, and global frameworks like the Budapest conventions or Digital Services Act, fail to address these immersive violations, leaving victims legally invisible. Recognising digital bodily integrity as a protective right is essential and requires an amendment to penal and cyber law to include virtual sensory assault.

Ultimately, the future of invasive technology depends on protecting digital bodily integrity. The legal system must treat Avatar-based violations as real and embodied, warranting the same gravity as physical assault. A holistic approach integrates criminalisation, ethical design, and education as essential to prevent immersive spaces from replicating offline hierarchies and domination. This paper, therefore, advocates:

1. Establishing an International Digital Bodily Integrity Charter, codifying virtual assault as a recognised category of harm.
2. Amending existing penal and cyber statutes to include non-physical, sensory and haptic violations
3. Institutionalising cross-sector collaboration among governments, corporations, and civil society for global accountability standards
4. Embedding an intersectional feminist framework to safeguard women, children and the marginalised community disproportionately targeted in the virtual environment.

As Clare McGlynn emphasises, recognising and articulating harm is essential to shaping effective legal responses to emerging forms of sexual violence.[52] Recognising and litigating metaverse sexual violence is not merely a legal reform; it is a moral

[52] Clare McGlynn & Carlotta Rigotti, supra note 1, at 583

imperative that redefines the boundaries of consent, personhood and justice in the digital century.

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