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Metaverse: Surging Need for Competent Laws with Increasing Metaverse Crimes

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ABSTRACT

The CEO of the largest social media platform declared that the metaverse would emerge as the next big phenomenon after the Internet, which gave it impetus. The idea of the Metaverse incorporates IoT, AR, VR, XR, and 3D technologies, even though there isn't a unique, widely accepted description of it. It's also referred to as Web 3.0. The metaverse has significant market value and commercial potential. In October 2021, the current valuation was estimated to be over $14.8 trillion, although the growth value was between $3.75 and $12.50 trillion. Therefore, it is crucial to discuss the metaverse's legal ramifications. This article is to more thoroughly explain the crimes and legal complexities of the metaverse. It covers topics such as Data security law, intellectual property law, and enforcement of Anti-Trust and competition laws. It also covers a few other topics like what are the complexities in current laws, the need for competent laws and some case studies of crimes in the metaverse are also discussed to provide a complete picture.

Keywords: *Metaverse, Virtual Word (VR), Cryptocurrency, Cryptoasset, Sexual offences.*

I. WHAT IS METAVERSE?

Metaverse is a compendium of all virtual worlds made using blockchain technology. These could be online game environments, NFT galleries, or virtual cities. Whereas the true meaning of Metaverse varies, it is generally described as immersive, persistent, interactive digital worlds that are remarkably similar to the actual world. Currently, most netizens only see text and graphics on a plasma TV, while the virtual world wants to give viewers a 3-dimensional encounter by integrating augmented reality (AR) and virtual reality (VR) more deeply. In this virtual world, people can work, play, and travel. This duplicate virtual reality world is called the Metaverse.

People can carry out tasks which are impracticable in actual life in the fantastical fictitious universe described as the Metaverse. For instance, individuals can ride unicorns, fight dinosaurs, and dance on the moon. These objects don't exist in the real world. The term "Metaverse" has gained popularity in the modern day. The Metaverse is still a fictional world

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and I t might require considerable time to completely transform into a world of reality. However, several businesses, including JB Morgan, Adidas, Gucci, Coca-Cola, and others, have indeed experimented with the Metaverse.

(A) How did it begin?

The Metaverse began in the world of gaming, whereby players construct avatars which are artificial versions of themselves. Runescape, Mine craft, and Fortnite are some of the games which are already leading in the metaworld[3]. Players can earn money in such games and use it to buy things like clothes and skins. Such games have an in-game economy. During the epidemic, Metaverse usage increased. Humans started to give their social media lives more importance. Throughout this period, online video chats, gaming, and other internet-based channels were the main ways in which individuals interacted. These were the areas where people began engaging among themselves during the epidemic when everything was shut down.

(B) How far Metaverse has gone?

1. **Rebranding of the company:** One of the cornerstones of Facebook founder Mark Zuckerberg's lofty intentions to redefine the social media platform as "a Metaverse firm, forging the future of social connection" was the rebranding of Facebook's parent company as Meta[4].

2. **Concerts in the metaverse:** The digital performances raised the bar for the Metaverse. Numerous large-scale performances are held on other platforms, such as Fortnite. Shows in the Metaverse are growing in popularity. Everybody can adopt a new character by choosing an appearance, and these are more readily available, economical, and accessible. Travis Scott, Ariana Grande, and The Weeknd have all earned millions of dollars via virtual concerts for their admirers[5]. 88% of attendees said they would participate again even if in-person activities resumed. Over 12 million players joined Fortnite for Travis Scott's epic online event during the pandemic, which was live streamed to the world. It showed Scott singing his songs while teleporting around the scene in a building-sized space. A computerized version of Scott performed a fully animated, scripted act for ten minutes, which was smaller than a concert. As Scott

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[3] Johnathan Jaehnig, *Are Games Like Minecraft, Roblox, and Fortnite Types of Metaverse,* MAKE USE OF (Mar. 09, 2022), https://www.makeuseof.com/are-games-like-minecraft-roblox-fortnite-the-metaverse/.

[4] Muhammet Damar, *Metaverse Shape of Your Life for Future: A bibliometric snapshot,* 1 J. OF METAVERSE 1, 1-2 (2021).

[5] Ronke Babajide, *The Metaverse Is Becoming a Massive Revenue Stream for Artists,* MEDIUM (Oct. 20, 2021), https://medium.com/our-world-tomorrow/how-the-metaverse-is-becoming-a-massive-revenue-stream-for-artists-7beb6d668c04.

switched songs, his virtual persona altered, first turning into a robot and then a bright astronaut.

(C) What can be done in Metaverse?

1. Acquire & profit from property investment:

One of the most popular uses of the Metaverse is real estate transactions, and people and businesses are keen to enter this market first. Rental properties can be bought, then later sold for more money, or leased to a builder of real estate or a Virtual event organizer.

2. Construct VR experiences such as games, scenarios, etc:

Many Metaverse systems have constructed capabilities that allow users to design and construct in VR rather than simply consume it. To assist users in creating their personal VR world, Horizon World, for instance, provides pre-built designs, noises, forms, etc. It might be a straightforward "hangout" area for individual use or a multi-player, tiered game environment.

3. Use avatars that a person may customize to represent themselves:

Sci-fi made virtual avatars trendy, and Metaverse technologies have made them possible. An individual may alter their sexuality, clothing, physical attributes, and hair colour, and sometimes appear as a fictitious character in the Metaverse[6].

4. Convene and work with distant coworkers:

The closeness of face-to-face encounters will be transferred into a technological sense via metaverse, revolutionizing remote work. The Metaverse extends the ability a bit beyond by enabling complete workplaces and architectural complexes to reside inside a virtual space. VR platforms like Mozilla Hubs already offer this functionality to some extent.

5. Interact and meet new people:

Despite being required to drive far or leave your house, the Metaverse makes it simpler to connect with new individuals. People having physical limitations and people who live in rural areas with few opportunities for social engagement may find this to be of great help. Numerous Metaverse games are created specifically to facilitate meeting new individuals and establishing a relationship. We have also witnessed a case when two people got married in the Metaverse and invited a huge crowd without any geographical distance limits[7].

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[6] Robert Stevens, *What Can You Actually Do in the Metaverse in 2022?*, COINDESK (Aug. 23, 2022 7:57 P.M), https://www.coindesk.com/learn/what-can-you-actually-do-in-the-metaverse-in-2022/.
[7] Ibid.

6. Buy physical and digital goods:

People engage with items in Metaverse in a manner which is not feasible through online storefronts or e-commerce. A person's avatar may enter a digital marketplace, browse the stores, check out items like clothing or shoes, and pay bills using a bitcoin right there. Users are given the choice of making a real-life purchase and having the item delivered later or purchasing digital goods for their avatars.

7. Attend musical performances, expos, and educational events:

Virtual reality properties can be utilized to hold a variety of activities, including social occasions, corporate meetings, and educational opportunities. Event planners may decide to charge guests for tickets to generate revenue from this capacity. While assuring that interactions are genuine and natural, a metaverse concert seems to have the ability to reach a far bigger audience. The majority of platforms provide dates of their events in advance.

8. Play games in virtual reality:

Some of the Metaverse's significant uses are VR gaming which is also probably why it was initially thought of. For example, The Sandbox is a collection of games that has steadily grown into a top Metaverse platform. People can take part in "earn-to-play" activities in addition to playing games for leisure. Casinos and other games on Bloktopia would be made specifically for such usage, and winnings would be transferred to the participant's bitcoin wallet.

9. Exchange in-game items for cryptocurrencies:

In-game items for sale inside a virtual market could be created via the use of creator tools in Metaverse platforms. These items range from straightforward accessories and avatar cosmetics to intricate weaponry and equipment for video games[8].

10. Use NFTs to purchase visual art:

Inside the Virtual world, there are businesses and events as well as art galleries. People might browse virtual artwork here and buy it with non-fungible tokens (NFTs). It is a developing investment asset that gives virtual things genuine possession & worth. NFTs can either be kept as a component of a collection or auctioned again for gain. Whereas the experience is less comprehensive, NFT art is accessible beyond the Virtual world as well (via cryptocurrency exchanges)[9].

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[8] Nicholas Rossolillo, *The Metaverse and Crypto*, THE MOTLEY FOOL (Jul. 05, 2022 5:21 P.M), https://www.fool.com/investing/stock-market/market-sectors/information-technology/metaverse-stocks/metaverse-crypto/
[9] Ari Zoldan, *How to Invest in the Metaverse*, NASDAQ (Jul. 05, 2022

(D) Metaverse's dark side

The shadow side of the metaverse is that it is being built by the largest digital behemoths in the world, namely Microsoft, Google, Apple, etc. The metaverse is modern technology setting wherein consumers may have their avatars, engage in events, play games, and go for a workout. Despite the significant wagers on the concept by large organizations, worries about the security of the metaverse have nonetheless surfaced. According to experts, harassment, assault, bullying, and hateful speech are indeed prevalent in VR, that form part of the metaverse, and there are very few straightforward ways to address the misbehaviour.

Cybercrime is indeed creating chaos throughout the world, however, as civilization moves toward a multifaceted digital channel, it's estimated to hit $10.5 trillion in 2025. Various issues will arise in the metaverse, like unrestrained information gathering that violates our private information, prolonged harassment and threats, pretender avatars trying to access private information, pervasive security deficiencies, biased intelligent systems, proliferating robots and spammers, and more highly divisive social issues, widening inequality, and issues with physical and psychological well-being. According to the Center for Countering Digital Hate[10], a metaverse violation occurs in the popular virtual reality game VRChat about every seven minutes.

II. CRIMES IN METAVERSE

(A) Money-transfer fraud:

It is probable that as consciousness or use of the Metaverse keeps on rising, criminal players would attempt to have it as a pathway to transfer illegal money, as we've seen with decentralized finance (Defi) and NFTs. Fraudsters will try to conceal the origin of such funds by swapping them for metaverse-based resources like property, clothes, or native Metaverse crypto assets. Such funds might originate through real-world actions or other crypto-based offences. Decentraland, Cryptovoxels, The Sandbox, and Somnium Space collectively sold over $500 million[11] worth of crypto assets, including land, in 2021. This amount is predicted to quadruple in 2022. As a result, the metaverse is appearing to be a more alluring location for fraudsters trying to commit fraud.

A further issue is that, contrary to the actual world, where buying real estate requires tons of

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11:42A.M), https://www.nasdaq.com/articles/how-to-invest-in-the-metaverse-0.

[10] CENTER FOR COUNTERING DIGITAL HATE | CCDH (2022), https://counterhate.com/.

[11] Harsh Kumar, *All You Need To Know About Crimes In Metaverse World*, OUTLOOK MONEY (Sep. 17, 2022), https://www.outlookindia.com/business/all-you-need-to-know-about-crimes-in-metaverse-world-news-207619.

paperwork and solicitor-led checks, buying metaverse real estate only requires a crypto asset address and a small amount of money. Know-your-customer (KYC) checks are seldom required to purchase items in metaverse markets, and this is also true for secondary markets, which occasionally enable the transfer of digital assets worth millions of pounds[12].

One prominent exemption to this rule was Yuga Labs' Otherside metaverse land release, which demanded that potential land investors submit KYC checks before the open sale of the property.

Protection against Money- transfer fraud:

Secondary marketplaces, exchanges, and others can conduct regulatory checks on the accounts sending/receiving payments to determine potential money laundering risks to reduce the danger of financial fraud through assets associated with the metaverse.

By doing this, it will be possible to identify any further money laundering threats and guarantee that any attempts to employ disguise tools or services are detected.

It's crucial to have a comprehensive knowledge of the hazards related to a single metaverse alongside the dangers associated with other metaverses because illegal actors frequently seek to act all over a wide range of resources and connectivity amongst chains grows. This can prevent dishonest actors from trying to "clean" money via one asset or metaverse while hiding it elsewhere. As a result, having access to the results across several blockchains and/or metaverses while evaluating assets or managing data related to metaverses can aid in creating this image.

(B) Sanctions and Funding for Terrorism:

Naturally, there has recently been a lot of worry as to whether cryptocurrency assets in particular have just been or will be utilized to aid sovereign nations and other undesirable parties to dodge sanctions or finance terrorism. There will thus worry about the possible use of the metaverse for such illegal behaviour as its related activity increases. These kinds of people might attempt to explore the following channels:

a) **Using Crypto assets Connected to the Metaverse to Finance Terrorism or Avoid Sanctions:** Funding through assets associated with the metaverse is a potential route that prohibited actors, particularly those connected to terrorism, may attempt to investigate. The possibility of it now, however, seems minimal given that all terrorist crypto-fundraising activities, Elliptic has yet identified, have been largely conducted in bitcoin (BTC), with

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[12]   Clare   Puplett, *The   Metaverse   and   Money   Laundering*,   NORTHROW   (Aug.   19, 2022), https://www.northrow.com/blog/the-metaverse-and-money-laundering/.

just a negligible proportion being conducted in other crypto assets[13]. This is probably because bitcoin is more well-known than other crypto assets and has the most cooperation on fiat on-and-off ramps, such as crypto exchanges, making it the simplest crypto asset for supporters to buy and send.

Sanctioned individuals or nations employing metaverse-related resources to circumvent sanctions are other issues. This means that despite their popularization, prohibited country governments and terrorist organizations haven't yet begun to employ such precise metaverse-related resources.

b) **Licensed Performers Buying Metaverse Land:** Another issue is that sanctioned actors might try to buy property in the metaverse to transmit or retain unlawful money. They might try to take advantage of the fact that land is more expensive than other metaverse-related assets including garments and native crypto assets, along with the simplicity with that it can be moved internationally, like other blockchain-based assets[14]. In contrast, there is no proof that sanctioned parties are purchasing native land assets in the metaverse when analyzing the Decentraland LAND agreement. The utilization of tangible real estate by sanctioned actors to transport and keep their money is therefore well documented, but it doesn't seem that this has yet resulted in metaverse activity.

Protection against Risks of Sanction:

Although it's doubtful but still not impossible that sanctioned country governments or other entities will attempt to take advantage of metaverse advancements in any meaningful way, this is a concern that has to be watched.

Thus, it is crucial to check all projects' businesses of wearables, real estate, or other valuable items that businesses might be using or creating for the metaverse for sanctions-related activities. This will enable additional neutralizing or alerting measures to be performed and assist in determining if any prohibited actors are trying to breach limitations[15]. You may monitor your compliance risks in the sector by using the Elliptic Navigator and Lens tools, which handle a variety of crypto assets, connected to the metaverse and enable you to analyze activities and account for risks associated with sanctions.

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[13] Fintechnews Switzerland, *Financial Crimes in the Metaverse*, FINTECH SCHWEIZ DIGITAL FINANCE NEWS (Sep. 08, 2022), https://fintechnews.ch/security/financial-crimes-in-the-metaverse/54924/.
[14] Richard Marley, *Metaverse and Money Laundering - How Shufti Pro's AML Screening Helps*, SHUFTIPRO (Mar. 17, 2022), https://shuftipro.com/blog/metaverse-and-money-laundering-how-shufti-pros-aml-screening-helps/.
[15] Anna Collard, *Here's how to prevent crime in the metaverse*, WORLD ECONOMIC FORUM (Aug. 18, 2022), https://www.weforum.org/agenda/2022/08/crime-punishment-metaverse/.

(C) Scams:

The quantity of commercial and industrial capital entering the crypto market has ultimately resulted in a rise in fraud. This is also due to a lack of knowledge on how to maintain money securely and spot signs of fraudulent behaviour. These can be giveaway fraud, wherein consumers have deceitfully assured a doubled profit if they submit money to an address, or rug pulls, in which ventures garner money and then vanish before actually providing any roadmap claims. Investment scams also fall under this category. Cryptoassets valuing over $14 billion were reportedly robbed through scams in 2021, according to reports[16]. Given that they are the most well-known and easily accessible commodities, particularly for individuals who are unfamiliar with the ecosystem, the assets in question are typically bitcoin and Ethereum-based tokens.

(D) Sexual Offenses:

The time it will take for a penis-related image to appear in a video game or online forum is predicted by a theory called Time to Penis[17]. The metaverse will not be exempt from this trend, whether the medium is Lego, SecondLife, or Minecraft. A pornographic image even reached the moon. And hence, there are worries regarding how the space might be utilized for more menacing material like child sexual abuse materials (CSAM), revenge porn, and sexual harassment. Although there may be several incidences of humane sex practices inside the metaverse and prospects for physical intimacy businesses to start up within metaverse red-light districts, these are just some of the concerns.

a) Risks of Child Sexual Abuse Material:

When some users of the well-known web2.0 metaverse SecondLife created avatars that resembled minors and presented them in sexual photographs and used them for in-game sex clubs, this was discovered in 2007, and regrettably, the issue of bad actors trying to use new technologies for CSAM still exists[18]. There are several recorded instances of children being exploited openly in the metaverse along with hosting or giving access to CSAM through the metaverse[19]. Due to minors getting into the area and the lack of adequate identity verification

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[16] Andrew, *Using Benford's Law to Detect Bitcoin Manipulation*, COLUMBIA EDU. (Jul. 15, 2021 9:15 A.M), https://statmodeling.stat.columbia.edu/2021/07/15/using-benfords-law-to-detect-bitcoin-manipulation/.

[17] Philipp, *Time to Penis / TTP*, KNOW YOUR MEME (2021), https://knowyourmeme.com/memes/time-to-penis-ttp.

[18] Kate Connolly, *Germany investigates Second Life child pornography*, THE GAURDIAN (May 08, 2007), https://www.theguardian.com/technology/2007/may/08/secondlife.web20.

[19] Carolina Christofoletti, *When it comes to Child Sexual Abuse Materials (CSAM), a poorly commented case is the one of the so-called C...*, LINKDIN (Dec. 28, 2021), https://www.linkedin.com/pulse/hidden-folders-threat-i-what-true-depth-metaverse-christofoletti/?trk=pulse-article_more-articles_related-content-card.

safeguards, Meta's Horizon Worlds metaverse is said to be experiencing concern with child predators.

b) Non-Consensual Porn:

Using VR headset-driven games like Holodexxx, ImagineVR, and Captain Hardcore and also VR adult content collector sites like LewdVRGames, virtual porn is a developing phenomenon[20]. Nonconsensual virtual porn potentially emerges as a genre in this area and spread throughout the metaverse or be viewed there. Virtual reality non-consensual sexual actions may already be performed using platforms that can produce VR porn resembling DeepFake from photographs of famous people or ex-partners. One person posted in a thread about making 3D pornographic material with Virt-A-Mate70, "I utilize it to satisfy my sexual desires or reproduce intimate events with my ex-girlfriends", and the possibility that malicious hackers might use the same technique to broadcast this throughout the metaverse and use CSAM is an additional danger.

c) Sexual assault:

Multi-user domains (MUDs), simulated text-based realms where people may move around using text commands, existed even before the metaverse. LambdaMOO, one of the most widely used MUDs, has a design that was inspired by a home in California. One afternoon, several people were conversing in the "living room" when Mr. Bungle, a user, unexpectedly released a "voodoo doll". This was a gadget that generated text like "John kicks Bill," giving the impression that users were acting. But, the text sent out gave the impression that one person had committed aggressive and sexual behaviours against other individuals. After extensive discussion regarding how to react within the virtual world over the next few days, Mr Bungle was finally booted out of MUD by a "wizard[21]."This instance of text-based sexual misconduct occurred during an early metaverse, but sadly there have been a lot of well-documented instances of sexual harassment in more recent metaverse contexts.

Case study A:

Frauds involving false airdrops and giveaways for assets connected to the metaverse have previously been documented. When the Yuga Labs team launched the release of MetaRPG and its native cryptocurrency ApeCoin (APE) in March 2022, a lot of nefarious individuals on social

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[20] Lewis White*, Facebook's Metaverse is already a hot spot for child predators*, STEALTHOPTIONAL (Feb. 09, 2022), https://stealthoptional.com/metaverse/facebooks-metaverse-child-predators/.

[21]Samantha Cole, *People Are Having Sex With 3D Avatars of Their Exes and Celebrities*, (2019), VICE.COM, https://www.vice.com/en/article/j5yzpk/they-cant-stop-us-people-are-having-sex-with-3d-avatars-of-their-exes-and-celebrities.

media sites attempted to deceive players into opening dangerous hyperlinks or donating money for phoney prizes. However, they succeeded in raising $900,000.

Case study B:

An NFT initiative called Pixelmon generated $68 million in February 2022 through a sequence of auctions and a minting campaign. The initiative marketed itself as a 3D internet game where NFT owners may communicate with the critters found there. The assets were shown to be of a substantially lesser quality than what had been originally promoted on the program's social networks after their launch in late February[22]. Their minimum price abruptly dropped from 1.3 ETH to 0.3 ETH, prompting many traders to accuse the enterprise of pulling a fast one.

On its Discord channel, the program's development team posted an apology, saying that "the truth is that we were not prepared to push the art." At about the same moment, 400 ETH were transferred from the Pixelmon agreement to a designer's wallet, which used the money to start buying a number of high-quality NFTs. After the disastrous debut, the Pixelmon Twitter account, which was still active, stopped all activities. The project's Discord channel is still operational and hasn't been verified as a rug pull, however as of the moment of writing, $13 million of the $68 million received has been distributed from the project's contract.

Case study C:

A LandVoucher for property in the Matrix metaverse was purchased by an account associated with the ransomware gang REvil, a hacking organization believed to be centred in Russia and charge of the Colonial Pipeline hack. It is a license for the virtual property you can purchase and construct within the Matrix metaverse, not for the local metaverse cash. Nearly a month after purchasing it, they transferred it to a new buyer for the price of 0.35 ETH, or around $1,500[23]. It is unclear why they bought the LandVoucher or if the individual to whom they sent it was related to them or not, however, it does point to activity from a well-known, high-profile entity in the metaverse that has been sanctioned.

III. THE LEGALITY OF METAVERSE

There are numerous concerns about the legitimacy of the Metaverse technology as well as the possible civil repercussions it may have. The Metaverse has faced several challenges, ranging from the problem of the appropriation of a feminine sign to such reselling of assets for billions.

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[22] Federico Miras et al., *Decentraland Security Update*, DECENTRALAND (May 03, 2022), https://decentraland.org/blog/announcements/decentraland-security-update/.
[23] RYUK Ransomware, TREND MICRO (2019), https://www.trendmicro.com/en_gb/what-is/ransomware/ryuk-ransomware.html.

However, this is merely the beginning of the internet's upheaval, and it may take another ten to fifteen years before the full effects of the Metaverse's invention are understood. However, lawmakers must work quickly to ensure that perhaps the Metaverse's technological advancements are compliant with data security guidelines. This calls for the creation of the Metaverse legislation as early as possible, allowing for the development of invention within the confines of the law.

Some of India's current metaverse legislation includes:

1. **Data Security Rules in India:** The Information Technology Rules, 2011 and the Information Technology Act, 2000[24] both oversee the country's current data protection framework. These regulations state that a business must have a security policy that encompasses technical, managerial, and physical safety mechanisms as well as written information security strategies to establish code compliance.

2. **Privacy and security Issues:** Due to the anticipated growth of Virtual world consumers, the platform is anticipated to collect enormous amounts of highly sensitive information about individuals. Any AR-VR device's privacy statement will often state that it will collect data on a user's biological characteristics, physical environment, and other private data. Due to the collection of such biometric information, this could be considered "highly confidential data" under the IT Rules[25].

3. **Invasion of intellectual property rights:** Since the Metaverse's birth, the business for virtual accessories has grown; as people's commitment to their avatars grows, they seem to be more likely to invest actual money in digital clothing for them. Due to how simple it is to copy virtual goods, Metaverse has seen an increase in charges of infringement of the trademark[26]. Businesses are now worried regarding their trademarks being used digitally in addition to on physical products.

4. **Enforcement of Anti-Trust and Competition Laws:** Because of the unique characteristics of the metaverse, it's been difficult to apply current laws. Ever since the beginning of the metaverse, anti-trust has been wrestling with unanswerable issues. A contract, combination, or conspiracy to obstruct trade, along with monopolization, and attempted monopolization,

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[24] The information Technology act, 2000, No. 21, Acts of Parliament, 2000 (India)

[25] Vinod Joseph et al., *A Review Of The Information Technology Rules, 2011*, MONDAQ (Mar. 19, 2020), https://www.mondaq.com/india/privacy-protection/904916/a-review-of-the-information-technology-rules-2011-.

[26] Lukas Bleidron, *Intellectual property rights in the metaverse,* RED POINTS (2022), https://www.redpoints.com/blog/metaverse-intellectual-property/.

are all prohibited under the Competition Act of 2002[27], which implements antitrust laws. Unreasonable constraints are also forbidden. Therefore, this legislation can be used if several applications compete in a business or one unjustly leads or poses a danger of doing so.

To sum it up, there are presently no explicit laws in India which regulate Metaverse in a suitable manner, which poses additional dangers for its users. Whenever it relates to ensuring the secure operation of this new platform, there is a statutory gaping hole ahead of us[28]. Authorities should step in now, while Metaverse is still in its infancy before the technology improves because, if they wait, it will become more difficult to regulate when there is a greater level of user dependence. Although emerging innovations like VR, AR, blockchain, etc., offer the tremendous possibility in various applications, there is still uncertainty over how they will affect existing legislation. It goes without saying that regulating modern technology would be challenging and would call for a revision of current legal frameworks.

(A) Need for more competent laws

More metaverse regulations are required because India currently has a weak regulatory system of metaverse laws. However, the amount of information being kept will drastically rise with the introduction of Metaverse. As a result, countless innovative data centers would be required[29]. A separate regulation is required which will facilitate the creation of data centers, allow for a progressive increase in capacity, as well in time, and mandate that such data centers follow environmental guidelines. The primary regions that call for particular metaverse rules are:

1. **Strict Laws and Rules:** A digital world requires laws and regulations more than anything else. There have to be constraints inside which users may survive if the metaverse is to function like the real universe, with individuals digitally communicating, trading goods, and participating in social activities.

2. **Adequate Consequences:** If a metaverse user steps out of line or perpetrates a crime, the proper punishments must be implemented. However, as we move from the physical to the digital realm, this gets a bit more challenging.

3. **User Identification:** Nowadays, it's far too simple for someone to engage in immoral behaviour digitally and escape punishment since the appropriate officials simply cannot

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[27] The Competition Act, 2002, No. 12, Acts of Parliament, 2002 (India)

[28] Sarthak Mishra, *Metaverse: a Virtual Reality and Its Legal Challenges*, IIPRD (Jul. 29 2020), https://www.iiprd.com/ip-and-metaverse/.

[29] Pritika Satyawali, *Our legal system is still not ready to regulate users' behaviour on the metaverse*, THE LEAFLET (Jul. 17, 2022), https://theleaflet.in/our-legal-system-is-still-not-ready-to-regulate-users-behaviour-on-the-metaverse/.

recognize them[30]. Finding a person whenever they break the law or conduct a criminal offence is made even more difficult if they are using a VPN to access the metaverse.

4. **Consumption Restrictions:** When a person has access to a simulated reality that they find more delightful than their actual reality, obsession can develop very fast, and many people are worried about the effects of the metaverse on their physical and mental well-being. We frequently remain in the physical world when we engage in routine buying online, gaming, and chatting.

5. **User Safety:** In addition, customers should be allowed to complain about any improper conduct by other users or any other occurrences that disturb or worry them. By enabling users to express their problems in this manner, the metaverse may be able to enhance its security measures[31].

IV. CONCLUSION

In its early stages, the internet was mostly used for text messaging among a small group of people. The internet started to be utilized for many things other than just sending and receiving e-mails over time, thanks to increased usage and concomitant technological advancements (not just regarding the internet specifically but also in technology for information and communication in general). Even VR activities that fall under the purview of the Metaverse can now be shared via the internet. Like the internet, the metaverse is an infinite phenomenon. Because of this, the Metaverse may indeed evolve along a similar route in terms of technology, which will have an impact on the regulatory difficulties that arise in this area. In contrast, platforms may keep a growing quantity of confidential material about user activity in the Metaverse, which would be the Metaverse's equivalent of a user's extensive web search history[32]. Similar concerns about succession and inheritance may arise from purchasing real estate in the Metaverse. Naturally, the law will struggle to keep up with the quickly developing technology. Platforms in this area are growing rapidly, but they need to make sure that privacy principles are built into their technology from the start. Platforms could, for instance, establish instruments or default characteristics that are enabled to preserve personal space across platform users' avatars.

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[30] Shade Oladetimi, *Protecting Your Digital Identity in the Metaverse*, JD SUPRA (Jul. 14, 2022), https://www.jdsupra.com/legalnews/protecting-your-digital-identity-in-the-6040663/.

[31] The Conversation, *The metaverse needs laws to protect users and data*, TNW (Feb. 04, 2022 12:17 P.M), https://thenextweb.com/news/metaverse-needs-laws-protect-users-data.

[32] George Miller, *Search data reveals absolutely no one understands the metaverse*, EUROPEAN GAMING INDUSTRY NEWS (Nov 02, 2021), https://europeangaming.eu/portal/latest-news/2021/11/02/103027/search-data-reveals-absolutely-no-one-understands-the-metaverse/.