
MEASURING CRIME IN METAVERSES: A CHALLENGE

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ABSTRACT

Virtual interactions have become an increasingly significant element of life for consumers and organisations over the last decade. During the COVID-19 pandemic, this tendency has escalated, with consumers and companies increasingly turning to video conferencing and other types of virtual engagement. The "metaverse" has recently sparked interest in virtual interactions, with major firms, like Facebook, launching metaverse efforts. Indeed, Facebook has gone so far as to include the phrase into its new name, Meta, after projecting the metaverse as the next big thing in technology. The "metaverse" appears to be the current IT term. The metaverse can be understood in the context of general cyberspace.

But the metaverse, offers us to immerse a form of ourselves as avatars in its environment, generally through augmented reality (AR) or virtual reality (VR), which people can access today and will be able to do more with technology like virtual reality goggles.

While it all appears to be extremely fascinating, it is compelled to inquire: who or what rules the metaverse? In my opinion, there are several crucial areas that are now legally ambiguous. This paper contains a theoretical description of a digital information pattern. It addresses the fundamental legal characteristics of metaverse creation, such as the necessity, complexity, and data privacy concerns. It concludes with a discussion of the metaverse's use, issues, and future prospects in the cyber era. This article looks at behaviours that would be deemed unlawful in the real world but are done in virtual worlds. It looks at how virtual worlds have evolved, as well as research that suggests that more and more of our lives will be moved into this realm. The article then looks at how virtual conduct that causes harm in the real world differs from virtual conduct that only causes harm in the virtual world.

Keywords: Metaverse, Laws in the metaverse, NFTs, Virtual World, Meta, Intellectual Property

INTRODUCTION

The phrase "metaverse" has no commonly agreed meaning, and for many people, it's just an amorphous term for an as-yet-undeveloped future of the internet. Virtual reality (VR), augmented reality (AR), and avatars are used in almost all metaverse conceptualizations, and they are all connected by a huge network. The phrase "metaverse" was originally used in Neal Stephenson's science fiction novel *Snow Crash* in 1992.¹ However, Facebook and a slew of other internet firms are working to make it a reality. In his quest for the metaverse, Mark Zuckerberg relaunched Facebook as Meta in October 2021. The once-popular concept of a virtual world that exists alongside the real world has now become widespread thanks to the tech giant's makeover. For better or worse, the metaverse is becoming a part of our lives. Millions of people spend hours each day in virtual social spaces like Roblox. More individuals gravitate toward digital ownership of non-fungible tokens (NFTs) and cryptocurrencies. The metaverse aims to expand the overlap of our social and digital lives in elements like socialising and productivity by using virtual reality (VR), augmented reality (AR), or simply on a screen, with exponentially developing online communities. However, the pursuit of this futuristic technological frontier poses considerable concerns about data privacy, antitrust, and intellectual property rights (IPR) infringement, all of which must be addressed in order to properly comprehend the technology's potential.

USER INTERACTIONS THROUGH AVATARS

When users engage through their avatars, there may be instances where an altercation happens that would be considered a crime if it occurred between persons in the real world. Such instances could be in violation of assault and battery which is a crime that involves illegal acts such as assault, murder, burglary or rape. Such cases may be in violation of tort law (civil claims such as negligence or annoyance) or criminal law (involving illegal acts and crimes like assault or fraud). Imagine one avatar assaults another. Could we employ assault and battery laws to address this situation? How could we hold an avatar accountable for their metaverse actions? This would be hard since we'd have to give the avatar a legal persona, giving them rights and responsibilities inside a legal system and allowing them to sue or be sued.

¹ C Marshall, How Neal Stephenson's Sci-Fi Novel *Snow Crash* Invented the "Metaverse," Which Facebook Now Plans to Build (1992) (Oct. 21, 2021), <https://www.openculture.com/2021/10/how-neal-stephensons-sci-fi-novel-snow-crash-invented-the-metaverse.html>.

It would also be far more difficult to prove assault or battery because it normally needs "actual physical damage." There will be no true bodily injury in the metaverse. It would be difficult to demonstrate harm, loss, or injury caused by an avatar.

METaverse MARKETPLACE

Cryptocurrency or NFTs are commonly used to fund transactions in the metaverse (non-fungible tokens). An NFT is a one-of-a-kind digital asset that can be an image, a song, a movie, a 3D object, or any sort of creative work. Knowing how the money will work in the Metaverse requires a grasp of NFTs. Cryptocurrencies such as Bitcoin and Ethereum will be used to purchase the digital assets that make up the Metaverse, such as NFTs. These NFTs might be anything from a fancy purse to a plot of virtual real estate for your avatar.² The NFT market is growing; in some cases, sales are in the millions of dollars. While it's difficult to judge whether this is just a fad or a novel and fascinating type of capital investment, these transactions offer some intriguing legal concerns.

When it comes to acquiring a piece of art in the "actual" world, for example, property law stipulates that ownership is two-fold. For example, ownership may be traced back to the physical artwork. Second, depending on the terms of the sale, the buyer may or may not hold the art work's intellectual property. But what really is involved in a digital art exchange in terms of ownership? True ownership remains with the owner in such cases.

Adoption is moving at such a breakneck speed that established legal procedures are struggling to catch up. The implications are substantial. The legal concerns are also high. Wash trading is common in many NFT exchanges since NFTs are categorised as property rather than securities.³ Other legal risks associated with NFTs and tokens include securities and copyright. State, local, and national regulations govern traditional real estate transactions. In the Metaverse, there is no equivalent framework for real estate transactions.

2 Frank Holmes, *The Metaverse Is A \$1 Trillion Revenue Opportunity. Here's How To Invest . . .*, Forbes, (Dec. 20, 2021, 05:17 PM), <https://www.forbes.com/sites/greatspeculations/2021/12/20/the-metaverse-is-a-1-trillion-revenue-opportunity-heres-how-to-invest/?sh=692c7e504df9>.

3 Elizabeth Howcroft, *Unreal demand? Irregular sales worth billions fire up wild NFT market* (Feb. 6, 2022, 4:25 PM), <https://www.reuters.com/article/fintech-nft-looksrare-idCAKBN2KC0FZ>.

WORLD OF NO PRIVACY

Companies in the metaverse may expect to collect enormous amounts of personal data for individual identification, advertising, and monitoring through a range of sources such as wearable devices, microphones, and cameras, and user interactions. According to Elon Musk, we are already cyborgs, and leaving the Metaverse would mean losing crucial aspects of our lives.

While contemplating and safeguarding privacy in the metaverse, users and organisations should begin adopting privacy by design when creating the technology on which we rely.

By merging presently diverse individualised digital experiences ranging from commerce to virtual travel, entertainment, and information gathering, the linked world is predicted to collect, retain, and rely on more personal data than ever before. Providers of the Metaverse will have access to even more personal information, such as biometric responses, physical location, financial records, and even the look of users' houses. Further, Metaverse firms like Mark Zuckerberg's Meta are anticipated to gather personal information for purposes such as individual identification, ad targeting, tracking across various channels, health monitoring (such as heart and respiration rates), and other virtual experience optimization. Companies in the Metaverse will integrate and aggregate massive amounts of data that will have an impact on every area of our life.⁴

DATA OWNERSHIP & PRIVACY CONCERNS

Participation in the Metaverse will need the collecting of vast quantities and types of personal information. Organisations may now track how people travel around the web or explore an app using smartphone applications and websites. Organizations will be able to collect data on individuals' physiological responses, movements, and even brainwave patterns in the future Metaverse, giving them a much better understanding of their customers' cognitive behavior and decision - making.⁵

4 H Vescent, The Metaverse: A missed opportunity for data ownership and privacy? (Jan. 21, 2022, 12:15 PM), <https://www.biometricupdate.com/202201/the-metaverse-a-missed-opportunity-for-data-ownership-and-privacy>.

5 Egliston, B. & Carter, M., Critical questions for Facebook's virtual reality: data, power and the metaverse . *Internet Policy Review*, 10(4), (2021), <https://doi.org/10.14763/2021.4.1610>

Users mostly will be logged in for an indefinite period of time. This means that patterns of behaviour will be continuously watched, allowing the Metaverse and the companies (vendors of products and services) that participate in the Metaverse to better understand how to provide very tailored service to the users.

Data will be created as a result of the metaverse, and the ramifications of such data must be examined. For example, haptic feedback from gear designed to enhance the experience raises questions about what data is gathered and how it is utilised or shared. Another problem in the metaverse is ensuring authenticity and safeguarding Intellectual Property from fraudulent digital replications. Non-fungible tokens, or NFTs, are used in this situation. NFTs may be used as digital certificates to establish ownership online, among other things.

NEW CHALLENGE FOR CYBERSECURITY

The legal difficulties provided by the metaverse's cybersecurity are comparable to those faced by the internet, which, in turn, reflect those of society as a whole. Experts believe that the metaverse's unique structure will give rise to whole new types of criminality. A metaverse that is strongly oriented on the usage of cryptocurrencies and non-fungible tokens (NFTs), for example, may be a hotbed for financial cybercrime such as fraud, theft, and money laundering, as well as "old-school" digital misbehaviour such as phishing, ransomware, and hacking.

User-on-user crimes, such as cyber trespassing, deceit, violence, obscenity, and harassment, must also be addressed. People currently do all of these things on the internet, and there's no reason why they won't do so in the metaverse as well.⁶ As a result, you may expect to be harassed and targeted based on your colour, gender, religion, political views, and just about any other idea or opinion you want to express. There have already been instances of sexual assaults in the metaverse's early days, and arguments have already begun.⁷

ANTITRUST

The centralised metaverse is set up as an extended corporate (for example, Facebook's Meta or Microsoft's metaverse), and these firms may collaborate to some extent, giving the impression

⁶ S Sarkar, BuzzFix: Sexual Assault in Metaverse is 'Real' and the Laws, Morals are Dangerously Hazy (Feb. 4, 2022, 07:18 PM), <https://www.news18.com/news/buzz/buzzcut-sexual-assault-in-metaverse-is-real-and-the-laws-morals-are-dangerously-hazy-4731455.html>.

⁷ A Rawat, Meta adds personal boundary after women alleged sexual harassment in virtual world (Feb. 5, 2022, 12:21 PM),

that giant tech companies are establishing power in the virtual world due to their size and scope. Because antitrust norms are created in the pre-metaverse economy, its multi-tenant collaborative nature might raise antitrust problems.

The metaverse's decentralised setup might mask behind-the-scenes centralization and control, making it more difficult to trace, monitor, report, or enforce.⁸ We'll need new definitions if the metaverse departs from the present economy's antitrust definitions.

INTELLECTUAL PROPERTY RIGHTS IN THE METAVERSE

The rise of virtual worlds brings with it a slew of new challenges, including cross-licensing, advertising, copyrights, trademarks, royalties, and patents, all of which must be carefully managed and negotiated. Agreements must articulate the metes and bounds of legitimate trademark usage in order to safeguard a brand from the reputational damage that might result from illegal use.⁹

It may also be necessary to negotiate unambiguous Intellectual Property licence agreements with metaverse platform providers that account for the metaverse's vast potential. For example, agreements must consider the scope of usage that will be permitted as well as any new applications that will be developed. Agreements for platforms that encourage user-generated material should also specify how the metaverse provider will remove and/or filter unauthorised content.

THE EFFECTS

It's debatable whether aberrant behaviour in virtual worlds may cause the same societal harm as it might in real life. A homicide or murder offence is barely imaginable in Metaverses. If an avatar dies, it cannot be considered a victim; at the very least, it is not analogous to victimisation in the real world.

There might be ramifications in the areas of fraud and cyber theft. Here, effective control would be required, and criminological study may be intriguing in seeing how order could be brought to a world with a self-selected lack of rule. This, however, only touches on a small section of

⁸ J Nelly Tuitoek, Antitrust in the Future Metaverse (Oct. 28, 2021), https://www.linkedin.com/pulse/antitrust-future-metaverse-jerobon-nelly/?trk=public_profile_article_view.

⁹ Ana Grabundzija, Legal Thoughts on the Metaverse (I): Intellectual Property Rights (Jan. 20, 2022, 4:00 PM), <https://cryptoslate.com/legal-thoughts-on-the-metaverse-i-intellectual-property-rights-footprint-analytics/>.

crime; in virtual worlds, the sorts of crimes that are very relevant to the wider public rarely play a role. When it comes to criminals, there are also issues. Who is the culprit when an avatar is insulted? Who should be punished, with the belief that punishment will have any effect at all? And, if the avatar is punished - there's a chance he'll be sent to a virtual prison — who will be the ones who suffer the consequences? The person who controls the avatar is ultimately responsible, and only he may suffer the consequences. This implies that the avatar's behaviour is not punished, but only the behaviour of the person sitting in front of the computer is. As a result, most people's perceptions of the virtual world as an autonomous society are totally inaccurate.

CONCLUSION

Privacy and data protection laws need to be updated to keep pace with the advancements in technology. When it comes to the digital world, laws drafted a century ago and interpreted by judges who are mostly unaware of current technology are rarely able to provide adequate justice. In a metaverse, leaving the policing of the place to the companies that run it is a recipe for disaster. Just look at how horrible social media has been at self-regulation. Using a simple and seemingly harmless term can get you a warning and set the Facebook bots on to you. And we don't mean to single out Meta (Facebook); all of the big tech companies are the same, and they will always prioritise profit over what's right or moral because the financial system is set up that way.

There are no laws yet to govern what is "unique" when it comes to the digital world of NFTs. For example, what if someone bought a book, scanned its cover photo, and uploaded that into their own metaverse profile as an asset. Can we stop them? Would it be right to? After all, they did buy that book.

And if we used an image from a stock photo for the cover? Do we have the right to upload that in the metaverse as our own?

There are currently no answers to these questions, and certainly no laws to address them. To even be considered by the legal system, one would have to take it to court and fight an expensive court case in order to establish some precedent in the courts. Will there be meta courts that exist only in the metaverse, and will administrators of small meta dominions dress up as judges to preside over such metaverse hearings? Only time will tell if this is true. How the metaverse will deal with physical boundaries is also a problem that will grow in importance.

It already exists in today's standard internet, with internet companies being required to follow norms and laws based on where their users are located. This is an issue that will persist in the metaverse. And if, as we expect, crime rises in tandem with the metaverse's complexity, these issues will rise with it.