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Metaverse : chances and challenges in my generation Z

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**METaverse:
CHANCES AND CHALLENGES
IN MY GENERATION Z**

Saakshar Duggal, India⁴⁸⁷

“The Successor of the internet”: Well yes this is what many people believe about the Metaverse. These days everyone appears to be talking about this new technological paradigm called “Metaverse”. Since the inception of Covid-19, many people have started to hear and read about this new buzz-word Metaverse. It has a huge hype attached to it because it holds the potential to revolutionize the internet space in such a manner that we have never witnessed before.

⁴⁸⁷ Saakshar Duggal, Advocate, Delhi High Court, Advisor Academic Outreach of Cyberlaw University and Chief Executive Cybersecurity-You. Contact: duggalsaakshar@gmail.com. More at www.saaksharduggal.com. © Globethics Publications, 2023 | DOI: 10.58863/20.500.12424/4276066 | CC BY-NC-ND 4.0 International.

40.1 The Meaning of Meta+Verse

Metaverse is definitely the next big version of the internet that's waiting for all of us. The buzz around Metaverse has got substantial thrust and focus, with the Facebook changing its name from Facebook to Meta platforms. Metaverse is representing itself as the new manifestation of the application of Virtual Reality and Augmented Reality in cyberspace. Typically, the word Metaverse consists of two words, Meta plus Verse.

The word "metaverse" derives from the prefix "meta" (beyond) and the stem "verse" (universe). The term means "beyond the universe." Let's see what the two words in "Metaverse" actually mean.

Meta efficiently conveys the idea of transcending reality (as in metaphysics). The more current use of meta as an adjective means "self-referential" or knowingly distinct from the conventional and concrete world.⁴⁸⁸ Meta (from the Greek μετά, meta, meaning "after" or "beyond") is a prefix meaning "more comprehensive" or "transcending".⁴⁸⁹ Meta means about the thing itself. It's seeing the thing from a higher perspective instead of from within the thing, like being self-aware.⁴⁹⁰

Metaverse generally refers to the concept of a highly immersive virtual world where people gather to socialize, play, and work.⁴⁹¹ can be defined as a simulated digital environment that uses augmented reality (AR), virtual reality (VR), and blockchain, along with concepts from social media, to create spaces for rich user interaction mimicking the real

⁴⁸⁸ What is the 'metaverse'? Merriam-Webster, <https://www.merriam-webster.com/words-at-play/meaning-of-metaverse>

⁴⁸⁹ Meta, Wikipedia, <https://en.wikipedia.org/wiki/Meta>

⁴⁹⁰ Meta, Urban Dictionary, <https://www.urbandictionary.com/define.php?term=meta>

⁴⁹¹ What is the 'metaverse'? Merriam-Webster, op. cit.

world.⁴⁹² Metaverse is a shared, realistic, and immersive computer simulation of the real world or other possible worlds, in which people participate as digital avatars.

Metaverse is a theoretical or emergent networked online space with digitally persistent environments that people inhabit, as avatars, for synchronous interactions and experiences, accessing the shared virtual space through virtual reality, augmented reality, game consoles, mobile devices, or conventional computers.⁴⁹³ The Metaverse is a digital reality that combines aspects of social media, online gaming, augmented reality (AR), virtual reality (VR), and cryptocurrencies to allow users to interact virtually.⁴⁹⁴

40.2 Metaverse Characteristics

Metaverse as a paradigm has got various salient features and characteristics. It has the following important characteristics:-

It is social;

It is hardware agnostic;

It has user generated content;

It is live and persistent;

It is economically fertile; and

It bridges between different virtual worlds.⁴⁹⁵

It is an infinite space;

⁴⁹² Metaverse Meaning – What is this New World Everyone’s Talking About?, Today Digital, Blog, <https://www.xrtoday.com/mixed-reality/metaverse-meaning/>

⁴⁹³ Metaverse, Dictionary.com, <https://www.dictionary.com/browse/metaverse>

⁴⁹⁴ Folger, Jean. 2022. What Does Metaverse Mean and How Does This Virtual World Work? Investopedia, <https://www.investopedia.com/metaverse-definition-5206578>

⁴⁹⁵ Dadwal, Dohit, Characteristics of the metaverse, LinkedIn webpage, <https://www.linkedin.com/pulse/characteristics-metaverse-rohit-dadwal/>

The connections in Metaverse are just as real;
There's no on-off switch to the Metaverse
It allows users to experience the new state of immersion.⁴⁹⁶

40.3 From Metaverse Marriage to Metaverse Money

Metaverse is now beginning to capture the imagination of people. Recently, a couple in Tamil Nadu, India being Dinesh Sivakumar Padmavathi and Janaganandhini Ramaswamy got physically married and held their reception in the Metaverse in the beginning of 2022.⁴⁹⁷

Further, towards the second half of 2022, we saw a couple actually getting married in the Metaverse. Bhopal-based Abhijeet Goel (33), a tech entrepreneur and Dr. Sansrati Jain (34) who tied the knot on Saturday, February 5th, 2022, became India's first couple to get married in a 3D Metaverse. The digital avatars of the couple hosted their wedding ceremony on the beachside and had more than 500 registrations.⁴⁹⁸

Meta Platforms has released various videos about the Metaverse and how it works. Metaverse is going to grow by leaps and bounds. That is the broad picture that is emerging on the basis of various figures and statistics available in the public domain. Some of these statistics are as under:-

- The market size of the metaverse is over \$38.5 billion.

⁴⁹⁶ Nisha Sashidharan. 2022. 4 Characteristics of Metaverse You Need to Learn, Extentia.com, blogpost, <https://www.extentia.com/post/4-characteristics-of-metaverse>

⁴⁹⁷ Holland, Oscar. 2022. My big fat digital wedding: Couple plan India's 'first metaverse marriage', CNN Style, <https://edition.cnn.com/style/article/india-wedding-metaverse/index.html>

⁴⁹⁸ For Better or 'Metaverse' – India's first Metaverse wedding had 500 guests, Clover Infotech News. <https://www.cloverinfotech.com/blog/for-better-or-metaverse-indias-first-metaverse-wedding-had-500-guests/>

- Over \$500 million worth of real estate was purchased in the metaverse so far.
- There are over 400 million metaverse monthly active users.
- 51% of the metaverse user base is 13 or younger.
- By 2026, 25% of people will spend an hour or more in the metaverse each day.⁴⁹⁹
- Meta Reality Labs has already invested \$10 billion in the metaverse.
- Decentraland launched a new platform feature that allows Land-owners to become landlords by renting virtual property.
- Metaverse's global market value is \$47.48 billion in 2022, and has a robust CAGR of 39.44%. By 2030 the value is expected to reach \$678.80 billion.
- Disney is developing a metaverse theme park. In December, the company filed for a patent for a "virtual-world simulator."
- Gucci opened Vault⁵⁰⁰, a metaverse concept store selling "Supergucci" NFTs.
- The corporate world is maximizing metaverse accessibility. Consulting giant Accenture created a metaverse environment called The Nth Floor⁵⁰¹, which mimics real-world offices and lets staff conduct training, on boarding, and other HR-related activities within the metaverse.

⁴⁹⁹ Hristina Nikolovska, Metaverse Statistics to Prepare You for the Future, BanklessTimes, Blog post, <https://www.banklesstimes.com/metaverse-statistics/>

⁵⁰⁰ Lenihan, Rob, 2022. House of Gucci Vaults into the Metaverse, TheStreet, Blog post, <https://www.thestreet.com/investing/cryptocurrency/house-of-gucci-vaults-into-the-metaverse>

⁵⁰¹ Leonhardt, Megan. 2022. Accenture designed its own metaverse for employees, complete with exact replicas of offices, Fortune, Blog post, <https://fortune.com/2022/04/11/accenture-builds-corporate-metaverse/>

- Metaverse is slated to add \$5 trillion⁵⁰² to the global economy by 2030, given the clamor for placing marketing and events in the virtual space. eCommerce still reigns as the largest economic force (\$2.6 trillion), followed by virtual learning (\$270 billion), advertising (\$206 billion), and gaming (\$125 billion), respectively. [⁵⁰³]

40.4 Ethics in the Metaverse?

The idea of metaverse sounds extremely exciting and promising. But the question is can we expect the sanctity of the concept of ethics will be automatically be maintained in the metaverse?

Well, unfortunately the answer remains uncertain. Whenever we talk about the existence of ethics in the metaverse, then we tend to face with a lot of grey areas in this domain. This is also because the metaverse is right now in its infancy stage and many developments and regulations have to be made. But at the same time, raising questions at the beginning always paves the way for an efficient growth in the future. However, there is also no denying to the fact that there is nothing illegal about Metaverse in the sense that it has been banned by any particular law and hence it can be said that there is everything legal around Metaverse as a paradigm.

Another important issue for consideration is how do we ensure the ethical behaviour of digital avatars. For that, it is important that the digital avatars must be created in an ethical manner and must be imbued with ethical values. However, this is where comes a huge challenge. Ethical values are a human concept but how do we imbibe ethical values in the digital avatar is a big question. Certain do's and don'ts concerning

⁵⁰² Takahashi, Dean, 2022. McKinsey & Co.: Metaverse could reach \$5 trillion in value by 2030, Venturebeat, Blog post, <https://venturebeat.com/games/mckinsey-co-metaverse-could-reach-5-trillion-in-value-by-2030/>

⁵⁰³ Geri Mileva. 2023. 52 Metaverse Statistics, Influencer Marketing, Blog post, <https://influencermarketinghub.com/metaverse-stats/>

the activities and behaviours of digital avatars can be incorporated, at the time of their building by the coders. This can be in the form of principles governing ethical behaviour, so that the digital avatar itself does not engage in any activity, which is per se unethical or violative of ethical values and standards of humans. However, still the concept of ethics involves morality and inculcating this sense of morality within these digital avatars will be a tricky task to do.

Recently, there was a case where a female avatar of a Metaverse user was digitally raped on the Metaverse by another male avatar. Logically speaking, the said act of Metaverse rape constitutes unethical activity as when you digitally tamper with the digital avatar, you are effectively, doing an unethical activity. In addition, you will also land doing illegal activity in as much as you are tampering with the computer resources and the electronic data logically belonging to another person.

40.5 For Metaverse Laws Based on Ethical Principles

The laws and regulations have always been the best friend of ethics, as they help in maintaining the sanctity of ethics in the society. When we look at the physical world, it is thanks to the law and regulations in the society which keeps the citizens under a certain discipline and at the same time, these help in maintaining ethics in the society. However today, we need to understand that as of now, countries have still not woken up to the need for having in place Metaverse laws. Most of the countries are keen that they already have in place their national cyber laws and that cyber laws grant legality to the electronic format and the national cyber laws could be alone relevant and sufficient for the purposes of regulating the Metaverse.

But very quickly the lawmakers have to understand that the Metaverse is a different ballgame altogether. It requires distinctive new set of legal frameworks and principles, which are currently not available under the national cyber legal frameworks of countries. Hence, as

Metaverse grows, it will become even more predominant and relevant from the perspectives of lawmakers to go ahead and come up with new legal frameworks to govern the Metaverse, in order for ethics to prevail in this virtual world.

Therefore, such Metaverse law needs have be based on ethical principles as Metaverse ethics would become an important sub-discipline of the study of ethics.

Today, people still lack clarity as to how the ethical norms of behaviour in Metaverse need to be developed. One thought process is that the existing ethical norms of behaviour, which are available in cyberspace, could be automatically extended on to the Metaverse. Others argue that given the unique nature and characteristics of Metaverse as a paradigm, there will be a need for coming up with new distinctive ethical principles impacting Metaverse at large.

Scholars are also agreeing on the fact that these Metaverse ethical principles must be backed by the sanction of law in order to make them more workable. Further, lot of complicated questions on the intersection of ethics and law are emerging in the context of Metaverse. How can the digital avatars behave? What is the particular limit within which they can behave? What kind of norms are acceptable in Metaverse to be followed by Metaverse digital avatars? What happens if the digital avatar does not follow the accepted norms of behaviour, expected from the digital avatar? Can digital avatar be declared as a rogue digital avatar or a Metaverse criminal? If so, can the said Metaverse criminal be subject to appropriate punishments or coverage under the existing law. These are very fundamental questions which have not been answered at the time of writing this article.

40.6 Metaverse: Really Open for Everyone?

“The metaverse is open and is for everyone.” When one reads this line, the first thought that comes to our mind is that the Metaverse would

be an ideal world where there will only be constructive positive activities and there will be no negative activity. But that is again a very idealistic expectation from the Metaverse. When we closely look at this statement, then we will realise as to what kind of challenges we are about to face, in order to maintain the ethical challenges in the metaverse. When we say that the metaverse is open, it means that at present there are no certain rules and regulations in this virtual world. The Metaverse is growing with leaps and bounds in its size and its potential applications, which automatically means that crimes in the metaverse are bound to happen at an unimaginable rate. Metaverse has caught the attention of various digital stakeholders including cyber criminals.

Human beings as a species have always been mischievous by nature. We always tend to go out of hand and end up creating a commotion within our surroundings and that's where rules and regulations are required to keep us in control. Different types of crimes have begun to happen in the Metaverse. Lot of existing cybercrime activities have begun replication in the context of Metaverse, with appropriate modifications and changes. Hence, trying to regulate the criminal behaviour in the Metaverse itself throws up large number of very interesting and ethical questions going forward.

Similarly, in the Metaverse, it will become even more difficult to identify a particular Metaverse crime and attribute the same to a particular definitive Metaverse actor. This is so because in the Metaverse, people don't interact directly but interact through their digital avatars. Hence, trying to ultimately affix criminal liability for Metaverse crime would be dependent on the ability of the system to be able to attribute the said Metaverse criminal activity to a definitive actor. That itself is a huge area of potential ethical discussion and evolution in the coming times.

40.7 Avatars, a Playground for Cyber Crimes

Further, while there is an expectation that Metaverse avatars ought not to engage in criminal activity, the fact remains that cyber criminals would want to misuse the fertile paradigm of the Metaverse to commit various criminal activities. Crime will be inevitable in the metaverse for a very simple reason, which is that behind the digital avatars are human beings and the human species is very much vulnerable to have malice in their minds in order to commit crimes, like we see in the physical world.

There is a lot of increase in cyber security breaches in the Metaverse. More and more Metaverse stakeholders are building virtual properties and platforms like the Decentraland. Cyber criminals and cyber security breaches are increasingly finding new options to go ahead and breach the cyber security of these Metaverse properties and assets.

Logically speaking, breach of cyber security of Metaverse properties is unethical and unacceptable behaviour and it ought not to be followed. However, the truth is that stakeholders will continue to keep on engaging in activities tantamounting to breach of cyber security in the Metaverse.

Hence, we will have to put in place appropriate mechanisms for the purposes of enforcing ethical behaviour of Metaverse actors in cyberspace. For that, appropriate legal frameworks will have to be put in place which can effectively go ahead and stipulate legal consequences for those, who go ahead and misuse the provisions of the law as also for those who engage in criminal activities and also Metaverse cyber security breach activities.

The coming of the Metaverse has actually thrown up far more new questions than answers. Further, use of Virtual Reality media in Metaverse in my generation effectively means that people will be now encouraged to come up with more creative expressions of their thought processes and creative abilities.

We are likely to see more growth of not just identical digital avatars but also non-identical digital avatars who would be based on the value and imagination of the concerned relevant stakeholders. The use of Virtual Reality on the Metaverse presents an opportunity, where it can be used as red clay to be moulded into something new distinctive peace of art. No wonder, a digital avatar on the Metaverse whether it is non-identical digital avatar or identical avatar, will often be constituting original, literary and artistic work. This is so because it is effectively representing the creative will and the creative skills of the concerned Metaverse stakeholders.

While the said Metaverse avatars will constitute original, literary and artistic work, the same would be subject to enjoyment of the intellectual property rights. However, this very intellectual property right is likely to be potentially questioned or interfered with by other State and non-State actors. Hence, it becomes even more necessary to ensure that the ethical norms concerning creation of intellectual property rights and utilization of the benefits of intellectual property rights in the said creations in Metaverse need to be appropriately well preserved and well supported. Most of the challenges will relate to the way how digital avatar as a paradigm evolve and how they continue to not just interact with other digital avatars, but will also engage in the Metaverse activities using Metaverse contracts.

This is itself going to throw up new contentious and legal issues. First and foremost, it will be imperative to ensure that Metaverse contracts are given appropriate legal sanction and ethical recognition. But the moment you talk about digital avatars entering into digital contracts constituting Metaverse avatars, a variety of ethical and legal considerations come forward. Is it ethical for a digital avatar to enter into a Metaverse contract? Can the original owner of the concerned Metaverse asset be made liable or responsible for the illegal or criminal acts of the Metaverse asset? If so, how? These are only contentious questions which have to be answered from ethical standpoint. However, how do we effec-

tively deal with such challenges, will have to be dependent on how they deal with the entire issue pertaining to the ethical principles concerning digital avatars.

40.8 Metaverse for Generation Z: Open Future

Thus, in my generation, Metaverse presents a new paradigm shift. More and more youngsters are going to be attracted to the Metaverse. They will start spending more time in the Metaverse, and is likely to become more important as it is evident from the various facts and figures available in the public domain (see financial figures above 40.3).

Experts expect by 2040 the metaverse will be a much-more-refined and truly fully-immersive, well-functioning aspect of daily life for a half billion or more people globally⁵⁰⁴

A perusal of the Metaverse facts and figures clearly show that the world is pretty bullish as far as growth of Metaverse is concerned. The increasing use of Virtual Reality in the Metaverse effectively means that there are now new opportunities in terms of generation of new employment, new opportunities of doing commerce, new opportunities of giving vent to your freedom of speech and expression. These and variety of issues will have to be appropriately dealt with by strong legal frameworks in the coming times.

Right now, the world is at a very early stage of development of the Metaverse. Not a single country has a distinctive law or legal framework on the Metaverse but as it starts getting more and more central in our day-to-day lives, such Metaverse will also have to increasingly be governed by ethical principles and regulated by legal frameworks and legal provisions of Metaverse law.

⁵⁰⁴ Janna Anderson and Lee Rainie. 2022. The Metaverse in 204, Pew Research Center, Blog post, <https://www.pewresearch.org/internet/2022/06/30/the-metaverse-in-2040/>