Metaverse Technology and the Current Market

M. Kaur and ¹Brij B. Gupta

¹National Institute of Technology Kurukshetra, India

Metaverse technology is being called the next big revolution of the internet. The Metaverse is a virtual environment where users may create avatars to duplicate their real-world or physical-world experiences on a virtual platform. Due to limits on physical gatherings and meetings, the notion has gained traction in the aftermath of the COVID-19 epidemic [1] [2]. However, just like any other economy, the Metaverse, a completely immersive virtual economy, requires a means of payment. The answer to this uncertain new reality is cryptocurrency. Cryptocurrency [3] is already used as a payment method in several metaverses. All virtual transactions are made thanks to the usage of cryptocurrency spontaneously, and the blockchain technology [4] [5] that underpins them makes them incredibly safe and trustworthy. Apps like Decentraland, Axie Infinity, and SecondLife, which are metaverse-like and blockchain-based, allow users to own virtual land, play-to-earn, and do a lot more. Non-fungible tokens (NFTs), which are cryptographic tokens in which the ownership details of virtual assets are coded, can be used to own digital assets. An NFT might be in the form of digital art, in-game property, or anything else.

Metaverse crypto: A promising future

As the globe continues to welcome the rise of new technology, Metaverse has emerged as a worldwide phenomenon with a sizable fan following. Below are the top metaverse currencies in the market for good investment as of now.

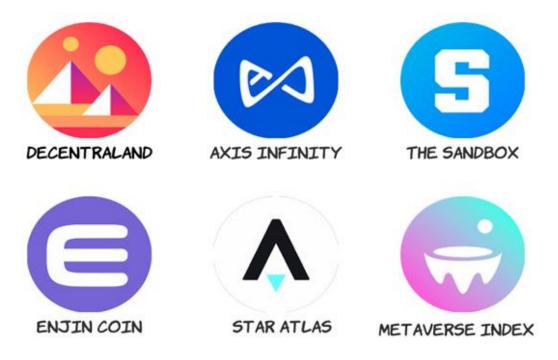


Figure 1: Top Metaverse Cryptocurrencies

- 1. **Decentraland (MANA)**: It is a virtual game platform that runs on the Ethereum blockchain and was designed and released in 2016. It gives users the freedom to create, experience freely, and monetize their content.
- 2. **Axis Infinity (AXS)**: Because of its seamless and dynamic Play-to-Earn (P2E) features, Axis Infinity has gained general recognition in the industry these days. Many individuals see it as a simple method to make money while having an entirely new level of enjoyment.
- 3. **The SandBox (SAND)**: SandBox, unlike other P2E games, allows users to create their own in-game characters, trade, and sell stuff on NFT LAND. On SandBox, anybody can create, share, and monetize assets.
- 4. Enjin Coin (ENJ): Enjin Coin (ENJ) has made significant progress in its performance and has established itself as one of the top-ranking metaverse tokens. It's a token based on the ERC-20 standard. The Enjin Coin (ENJ) was exclusively produced on the Ethereum network. NFTs may be used by anybody, including brands, people, and enterprises, thanks to the token's native coin ENJ.
- 5. **Star Atlas (ATLAS):** Star Atlas is a virtual game where users create avatars, play, and receive rewards in a three-dimensional virtual environment. It's an online game set in Solana. The game is mostly based on Unreal Engine 5 and features real-time gameplay.
- 6. **Metaverse Index (MVI)**: Metaverse Index is an important aspect of the market's metaverse games, as its name indicates. The coin contributes to the virtualization of business, entertainment, and sports.

Organizations involved and their progress

As the metaverse market grows in popularity, it benefits gamers and entertainers and attracts large investors who invest in advertising and other related areas. Companies like Facebook Inc. are pouring money into cooperating with government agencies and the private sector to improve social media channels and make advertising and marketing more accessible. These are a few of the critical aspects that are propelling the industry forward. Let's have a look at what organizations are doing in this regard.

- 1. **Metaverse Facebook:** Zuckerberg revealed his intentions for the future Metaverse, stating that the digital avatars people would use in this virtual world will be Metaverse NFTs. Today's video conferences may feature Cryptopunks and Bored Apes, but they will be replaced with realistic virtual avatars of ourselves in the future.
- 2. **Nvidia Corporation:** Nvidia is the world's leading manufacturer of graphics and artificial intelligence processors. Nvidia is benefiting from greater attention and investment focused on the Metaverse, increasing demand for its chips. This is because the company's semiconductors will be used in Metaverse's computer equipment.
- 3. **Epic Games, Inc:** Epic Games has announced the completion of a \$1 billion round of fundraising, which would allow the business to finance future expansion plans. Epic's stock is currently worth \$28.7 billion. Their investment will help us accelerate our efforts in Fortnite, Rocket League, and Fall Guys to create connected social experiences and enable game developers and

- creators through Unreal Engine, Epic Online Services, and the Epic Games Store.
- 4. **Nextech AR Solutions Corp**: The company is rebranding as "Nextech AR Solutions, A Metaverse Company." It is a diversified leading provider of augmented reality experience technology and services. Customers of Nextech may access all of their 3D assets, create AR experiences, and distribute them in any format to the Metaverse.
- 5. **ByteDance Ltd:** With the acquisition of virtual reality (VR) start-up Pico Interactive, ByteDance, the Beijing-based developer of short video platform TikTok, has taken another step toward building its own Metaverse. ByteDance's "entrance into the VR arena and long-term investment in this growing industry" will be supported by Pico Interactive's software and technology, as well as its talent and knowledge, according to the business. ByteDance invested roughly 100 million yuan in Mycodeview, the firm behind Reworld, an up-and-coming metaverse alternative to incumbent Roblox, in April 2021.
- 6. **Roblox Corporation:** Roblox is attempting to create a virtual world that is comparable to our own. Roblox chief of technology Dan Sturman outlined how the business hopes to do so by developing a metaverse that caters to users' requirements during today's GamesBeat Summit Next event. The platform aims to provide its users with tools that promote a secure environment while also maintaining connections in the same way they do in real life. Roblox is recognized for its ability to bring people together in virtual online environments, and the developer intends to continue improving and expanding on this feature.
- 7. **Microsoft:** Microsoft, on the other hand, intends to use systems like Dynamics 365 and others to power the Metaverse for businesses. The first product, a digital avatar-enabled version of Microsoft's Teams chat and conferencing application, is now in beta testing and will be ready in the first half of 2022. Customers will be able to exchange Office files and functionality in the virtual world, such as PowerPoint decks

Future of Metaverse Technology

By 2028, the Metaverse market is estimated to be worth USD 814.2 billion, with a CAGR of 43.8 percent during the forecast period. The worldwide metaverse business is increasing because of rising interest in areas such as socializing, entertainment, and creativity. This is because the metaverse may get all the attention, and rightly so, but blockchain and cryptoassets are critical components for this technology to fulfil its full potential. The benefit of cross-company collaborations and working together in fields such as gaming, marketing, sharing business, and others is another driver driving the market's growth. This has strengthened the tendency among the younger generation to employ metaverse software to generate unique ideas and profitable start-ups.

References

- 1. Masud, M., et al.. (2020). A lightweight and robust secure key establishment protocol for internet of medical things in COVID-19 patients care. *IEEE Internet of Things Journal*.
- 2. Ciotti, M., et al, (2020). The COVID-19 pandemic. Critical reviews in clinical laboratory sciences, 57(6), 365-388.
- 3. K. T.Chui, S. K. Singh (2020) Cryptocurrency and the Evolution towards Metaverses, Insights2Techinfo, pp. 1
- 4. Berdik, D. et al. (2021). A survey on blockchain for information systems management and security. *Information Processing & Management*, *58*(1), 102397.
- 5. M. Ali (2020), Blockchain Technology, Insights2Techinfo, pp.1