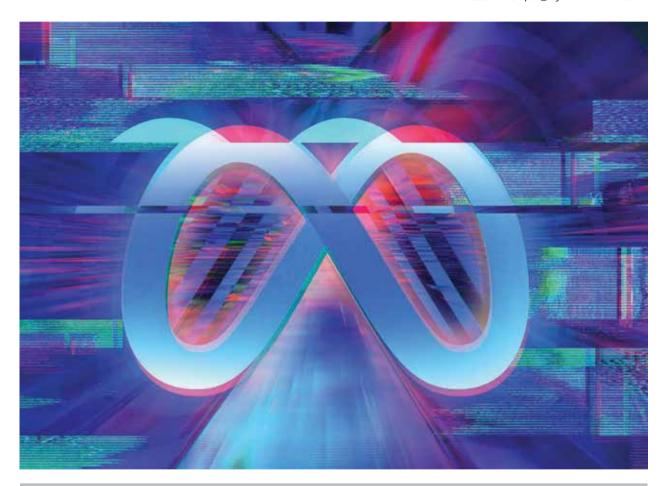# Still on the cusp of being the next big thing

Ashok Pandey
✉ ashokpa@cybermedia.co.in

As the world is moving towards remote working, the future of Metaverse will look very similar to the real world. But within a virtual space lies the possibility of replacing some real-world activities. It is expected that Metaverse will give a rise to the virtual economy as both the users and creators of these virtual realms will use digital currency to minimize any disruptions

Starting in late 2021, the Metaverse continued to hit the headlines throughout 2022 with broader adoption by major global brands. In 2023, it will remain one of the 'most watched out' sectors within the Web3 ecosystem.

Metaverse will fundamentally change the way we live and work. It has the potential to significantly impact the future of work and enable the workforce to socialize, learn and train, collaborate, and bring out the best of both virtual and real-life interactions. The future of the Metaverse holds boundless opportunities and potential for enterprises, as it represents a strategic inflection point to invest in and influence how we live, innovate, and collaborate.

A recent report by McKinsey & Co. predicts that the Metaverse could reach a $5 trillion economy by 2030. However, to embrace the opportunities of the Metaverse, enterprises must ensure that they do so in an inclusive, equitable manner that respects the privacy and autonomy of all individuals. Furthermore, while there will always be a need for real human interactions, the Metaverse will provide better ways to communicate and help bridge gaps in access to healthcare, retail services, education, and other areas, shaping the future of a digitally connected India.

▼ Current Metaverse Trends

As we head into 2023, we're on the cusp of a new technological era. Some significant developments are in store for the next few years, from Virtual Reality to Artificial Intelligence and from blockchain to quantum computing. The next giant leap that will advance the ecosystem is Metaverse technology. The field has already begun to take shape in various sectors, including education.

With Metaverse technology, educational learning platforms and other companies are working on their hardware and software solutions for immersive experiences. However, there's still much to be done before we see widespread adoption.

The Metaverse economy is predicted to add USD 5 trillion to the value of the global economy by 2030, and 2023 brings a promising opportunity. Therefore, it will be an important

DR. ROBERT BLUMOFE, Executive Vice President and Chief Technology Officer, Akamai

> There has been a lot of excitement about the Metaverse and the possibility it has to transform how we socialize, work, and play games. But this will be the year that the hype crashes into reality. An all-encompassing digital world may exist at some point, but that reality is a long way away. The reality of the Metaverse will look a lot more like interactive gaming in the near-term. Significant advances in computing and wearable technology will need to take place before a true Metaverse can be built.

year in defining the direction of metaverse technology.

The key trends which we will be observed in 2023 are:

1) Currently, the technology is slowly filtering down to smaller companies and businesses as well as creators and artists. The use cases are evolving rapidly but are hampered by the relative lack of experience in UI/UX in the Metaverse concept. This is slowly being addressed but there is a gap between the creativity and the tools required for its full expression. Their high cost, at present, is also a major issue.

Utilisation is further impacted by the lack of accessibility to the general public of the hardware required for full immersion. Fortunately, new players (most recently HTC) are entering the scene and providing competition in the VR/AR headset space and hopefully, this will accelerate the affordability of these devices. Nevertheless, the AR/VR separation may muddy the public reception and take-up.

2) Individuals can own digital assets including photographs, films, and audio in the Metaverse thanks to NFT technology. Already, some NFTs enthusiasts have started investing in NFTs leading toward decentralization and enabling easy transactions.

As the Metaverse is built on blockchain technology, it encourages Web 3-powered decentralization. This will lead to the rise of virtual democracies and user-run communities. Venture into NFTs will become more crucial for companies and brands.

3) Metaverse Avatar is one of the most thrilling metaverse trends expected to boom. Digital avatars will see the rise of AI-powered autonomous avatars.

4) The Metaverse will require fast and reliable networking infrastructure to support real-time interactions between users. 5G and other high-speed networking technologies are being developed and deployed to meet this need.

5) The Metaverse will require the development of high-quality 3D models and graphics to create immersive and realistic virtual environments. Several tools and techniques are being developed to achieve this, including photogrammetry, 3D scanning, and real-time rendering technologies.

6) The prominence of big players and their drive for control and ownership will, we believe significantly delay global Metaverse adoption. We believe that the Metaverse should belong to the creators and users. Further, we believe that the omniverse has significant social benefits that can only be fully achieved in a fully democratised and inclusive context. This is the Web3 future.

In addition, there is the ongoing insertion of regulatory and social/legal concerns with quite disparate views and ideologies competing for their own control.

YUVRAJ KRISHAN SHARMA,
Co-founder & CPO, Edverse

Many critical concepts that would underlie a true metaverse are already maturing quickly. With The ever evolving Metaverse concept, the role in the future would make Innovation in the Metaverse space accelerating to transform the digital economy, enhance interoperability for digital environments, create digital identities that consumers and organizations can own, set new governance rules, create more immersive digital experiences and make these experiences more persistent.

The requirement is that there are an interoperable set of tools, frameworks and standards that will allow each metaverse to seamlessly exist across multiple ecosystems, to mimic the real world this will also rely on virtual economies, and this means cryptocurrencies. This is a very hot regulatory topic and depending on how it falls will also have a major impact on the adoption of the Omniverse globally.

▼ Future of Metaverse

Leading brands will promote adoption, but in the end, it will be the individual creators, artists and users that determine the speed of adoption and how the early versions of the metaverse will appear.

The top candidates for developing metaverse projects and solutions are undoubtedly tech, gaming and media and entertainment businesses. To attract more consumers to the Metaverse, the goal is to have an entertainment experience in both the real and virtual worlds. Eventually, however, it will be predominantly in the Metaverse.

Creators' Pre-eminence: The creator economy is one of the Metaverse's most exciting opportunities. The creation of virtual assets and their exchange is one of the most significant developments among 2022 metaverse market trends as are tools for

VIVEK GUPTA,
EVP & Head, Engineering of CoinDCX

In India, increased 5G adoption will increase the automation of the physical and virtual world we interact with, thereby enhancing human experiences. The Internet is the backbone for the adoption of any digital innovation. 5G networks will further accelerate the Metaverse adoption by transforming social interactions.

content creation for all types of artists. The Metaverse allows creators the ability to take advantage of the Omniverse's unlimited freedom and adaptability. Creator participation and collaboration will be essential to the Metaverse's development.

Simulated real-world scenarios: Almost all real-life events—from concerts to business meetings to graduations—are ideal use cases for the Metaverse. The metaverse has always been about linking people for social benefit. The metaverse emphasis on strengthening interpersonal ties is a major theme. The immersive experiences and flexibility will increase informal, everyday interactions and offers the stimulating potential for extending collaborative experiences in digital settings. There appears to be less preference for offline than online encounters.

Preference for an online identity: Interaction in the metaverse is completely possible without having a knowledge of the real-world identity of the avatar. In fact, the ability to create your own social construct and version of yourself is a key factor in the adoption of the Omniverse for real-world interaction. Digital identification is one of the most important future metaverse themes to watch. There needs to be an easy balance of anonymity and accountability to allow the Omniverse to fully manifest its social benefits.

Digitally enhanced multidimensional places are anticipated to be created by the Metaverse, where users will be able to actively engage with the information or activity rather than merely watching it on a computer. It has baffling repercussions. There will be a variety of the Metaverse catering to all business sectors.

In recent years, the Metaverse has gained significant traction in a variety of sectors as a platform for a range of applications, including entertainment, education, and commerce.

Metaverse in Education: Education in the Metaverse will be technologically superior and induce a high learning outcome. The 3D model will induce accessibility and interactive

NAVDEEP SHARMA,
Co-founder, ReelStar

It is a 'New World' to be conquered and this is exactly how it is playing out. The virtual world landscape is mirroring the history of the real world with all its flaws, inequity and injustice. Colonisation, in the Metaverse, is happening as we read and type.
The Metaverse/Omniverse has massive potential alongside other Web3 technologies. It is our responsibility to ensure that the Web3 philosophy of democratisation, inclusion and transparency, is not lost in the Metaverse and that we, as a global community, learn from and do not repeat the mistakes of the real world when transitioning to the future 'New World'.

education. The advancements are taking a leap, bringing an opportunity to create VR labs enabling immersive remote learning, building skill, peer networking, and concept retention.

Metaverse in Healthcare: The Metaverse in healthcare and medical education has a lot to offer the medical field. It can provide patients with treatment options as well as practitioners with remote medical training. New methods of diagnosis and treatment may be made possible by AR-VR and digital twinning technology.

Offering immersive and interactive surgical and medical training in the Metaverse is a great idea. It can make it possible to visualize the human anatomy in 3D and study it in detail. Also, students can virtually enter the human body and thoroughly examine the cells.

Metaverse in Manufacturing: Manufacturing will have a lot of opportunities thanks to the metaverse. For instance, architects can develop virtual versions of their designs to see how they might seem in reality. In a real-world situation, this would not be feasible. They can even make modifications while working and get feedback immediately, improving market timing. Other manufacturers can do the same by developing prototypes of their products and testing them for problems before release. In addition to ensuring great quality, this will save time, money, and resources. Manufacturing firms can develop prototypes of all types of products before release. Testing products in the metaverse saves time and money.

Commerce: The Metaverse is also being used in the commercial sector as a platform

for virtual shopping experiences. Virtual stores allow users to browse and purchase products in a virtual environment, providing a more immersive and interactive shopping experience. The Metaverse is also being used as a platform for virtual events, such as trade shows and conferences, allowing attendees to connect and interact with each other and with exhibitors in a virtual space.

Several other sectors such as retail, finance, and real estate are also moving and adopting the Metaverse. The Metaverse is going to be ground-breaking with the rise of technologies like AR, VR, NFT, Blockchain, and AI, together with the introduction of 5G networks.

▼ Effect on the future of work

Before Covid-19, it was impossible to think that the offices would be running from employees' respective homes, but technology made it possible. The future of work is one step ahead in this league with Metaverse giving the idea of remote working a new edge. The time is not far when people will remain grounded yet will be able to enjoy the perks of the real world.

Through Metaverse, people will be able to create their virtual workplaces and perform daily operations as usual such as meeting a client, etc. Most astronauts, pilots, and surgeons have been trained to use VR but in the near future, this facility will be available to us, the common people.

VR is one of the hottest technologies in gaming today, and it will only get more popular

ABHISHEK AGARWAL, President Judge India and Global Delivery, The Judge Group

Metaverse is the next-generation technology where you can create your 3D virtual realm and experience the world through your computer screens. The virtual realm can be created by creating your identities and buying and selling objects through virtual currencies. The virtual environment makes it more accessible to interact with like-minded people.

in the future. VR will become a staple for gamers worldwide as technology improves and becomes more affordable.

In 2023-2025, the Metaverse will become a revolutionary platform for the gaming industry as it will provide opportunities to players to play games with real-world friends and increase gamers' engagement by offering them more options. The Metaverse will also help game developers make new games based on their imagination with no limitations set by hardware or software. Furthermore, it will allow them to create new types of games which were only possible after a lack of resources or technology.

The Metaverse will continue to provide developers with a new set of tools that they can use to create 3D worlds and build immersive experiences for their players. Since it is decentralized, users will not need to download any additional software or pay a subscription fee, thus making it easier for them to access this type of content. The gaming industry's future looks promising, thanks to technologies like blockchain and AI.

Developers are increasingly investing in these technologies to create more immersive experiences for their players and will continue to do so. Since they want to improve the quality of their products and make them more accessible through platforms like the Metaverse. ▪

SHREERANGANATH KULKARNI (SK), Chief Delivery Officer, Birlasoft

Metaverse can be the next major technology that will transform the internet, where immersive and interactive virtual experiences will be the norm. With the advancements and convergence of technologies like AR, VR, and IoT, with metaverse, we are witnessing a rise in interconnected virtual worlds. This is blurring the lines between the physical and digital world' leading to new opportunities for education, entertainment, commerce, gaming, and socialization.