PRAGYAAN 2022

METAVERSE 1.1

DEPARTMENT
OF
ARTIFICIAL INTELLIGENCE & DATA SCIENCE

Vision

"To become the department of eminence in the emerging technology area and create technologist for providing solutions to 21st century problem"

Mission

The department of B.Tech (AI & DS) is committed to inspire and create technologist with analytical, data centric and creative mindset having leadership qualities and ethical attitude, who can offer transparent and inclusive solution for the development of society and achievement of national goals with innovative technologies and smarter services.
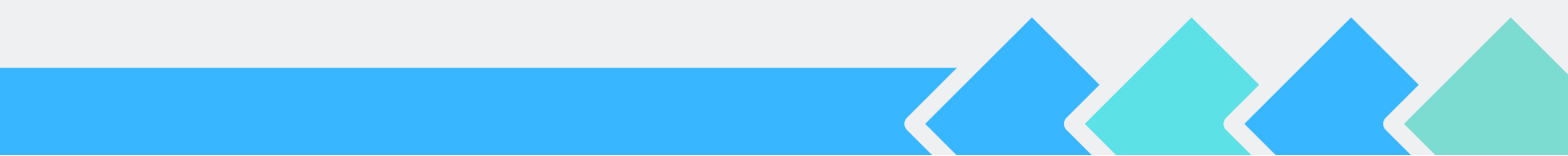
Program Specific Outcomes

PSO1: The ability to understand, analyse and demonstrate the knowledge of human cognition, Artificial Intelligence and Data Science in terms of real world problems to meet the challenges of the future.

PSO2: The ability to apply knowledge of basic science, probability & statistics, computing and algorithms in real world problems and meet the challenges of the future.

PSO3: The Ability to deliver optimized solutions with good communication skills.

PSO4: The attitude for collaborative learning and a culture of teamwork through multidisciplinary AI-based and data centric initiatives with professional ethics.

Program Educational Objectives

PEO 1:
Provide students with a strong foundation in the mathematical, scientific and Electronics Engineering fundamentals necessary to formulate, solve and analyze engineering problems at hand and to prepare them for graduate studies.

PEO 2:
Prepare students to demonstrate ability to design electrical and electronics systems, conduct experiments, analyze, interpret, and synthesize data for developing technical concepts from applications to product design.

PEO 3:
Prepare students to work as a team on multidisciplinary projects and to promote awareness among students for life-long learning along with professional ethics for successful career in industry to meet the needs of Indian and multi-national companies.

Programme Outcomes

PO 1:
ENGINEERING KNOWLEDGE: Apply Knowledge of Mathematics, Science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

PO 2:
PROBLEM ANALYSIS: Identify, Formulate, Research Literature and Analyze Complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

PO 3
DESIGN / DEVELOPMENT OF SOLUTIONS: Design solutions for complex engineering problems and
design system components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations.

PO 4
CONDUCT INVESTIGATIONS OF COMPLEX PROBLEMS: Using research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of information to provide valid conclusions.

PO 5
MODERN TOOL USAGE: Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of limitations.

PO 6
THE ENGINEER AND SOCIETY: Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice.

PO 7
ENVIRONMENT AND SUSTAINABILITY: Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.
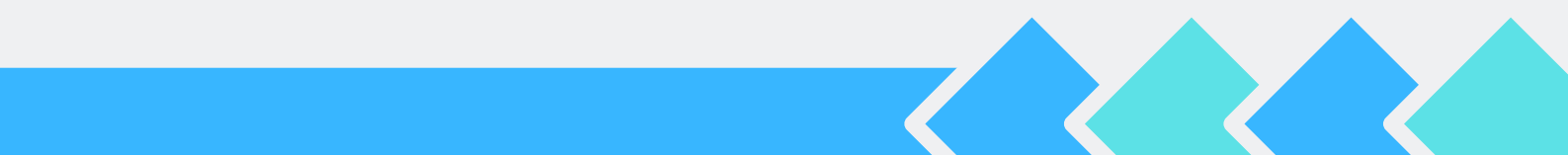
PO 8
ETHICS: Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practices.

PO 9
INDIVIDUAL AND TEAMWORK: Function effectively as an individual, and as a member of leader in diverse teams and in multi-disciplinary settings.

PO 10
COMMUNICATION: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations and give and receive clear instructions.

PO 11
LIFE-LONG LEARNING: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PO 12
PROJECT MANAGEMENT & FINANCE: Demonstrate knowledge and understanding of engineering and management and leaders in a team to manage projects and in multidisciplinary environments.

TEAM 2022

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"Messages"

MESSAGE FROM THE HOD

"The Goal of Education is the advancement in Knowledge and dissemination of Truth!"

~John F. Kennedy

It gives me immense pleasure to share that the department of B.Tech. (Artificial Intelligence & Data Science) is launching its first issue of department magazine "PRAGYAAN". Pragyaan represents Supreme intelligence. I am sure it will aim to inspire and nurture upcoming engineers to bring a revolution in this ever-changing world of technology. Pragyaan is a combined effort of faculties, students and the magazine committee. This magazine is intended to bring out the hidden literary talents in the students and faculties. It is a great platform to share the ideas and knowledge with their peers. Pragyaan is the reflection of the creativity of the students, involved in multifarious activities. For the first issue of Pragyaan the theme is Metaverse. Metaverse means 'beyond the universe', it is a modern digital and industry revolution.

Metaverse is primarily built with the idea to completely immerse the user within the online experience, mainly via virtual and augmented reality!

To conclude, I would like to congratulate the faculty incharge and the students of the editorial team on bringing out the first issue of Pragyaan. I am glad to see that they have delivered the magazine of high standards, which will be set as a benchmark for the forthcoming issues. I would like to thank all the stakeholders for their involvement and encouragement and wish them for their bright future.

Dr. Prachi Janrao
Incharge HOD

2022

FROM THE FACULTY INCHARGE

The Metaverse is a virtual shared area that is open to everyone. It is a catch-all term that refers to the entire digital and virtual world. It is considered as the next evolution of the internet by being able to take many forms, including gaming, online communities and business meetings where people can collaborate via a digital avatar of themselves. Some of the biggest tech companies such as Apple, Sony, Facebook, Google, Microsoft, and others are now spending billions of dollars to create the next version of the Internet, by combining the powers of AR/VR headsets, smartphones, personal computers, and cloud-connected servers to provide an immersive experience to the end-users, and enabling to meet, interact and carry business in a virtual environment, or a metaverse.

The advancement of extended reality in the Metaverse shared space may offer variety of applications for the betterment of society. Other than social networks and entertainment, some of the applications already being used are healthcare, military, education, real estate and manufacturing

The idea of what exactly the metaverse will be in the future is still quite new. Will it still be the same idea of VR glasses and virtual gaming worlds, or will it be an escape from the current reality we exist in? Only time will tell.

Ms. Anushree Patkar

Faculty in-Charge

2022

EDITOR'S NOTE

Ever wondered why Facebook changed their name to Meta? Understood the larger picture of NFTs? How Artificial Intelligence and Machine Learning are shaping the future of Metaverse? To answer all these questions we were compelled to write a magazine on "Metaverse". Imagine you meet your friends and family members not in reality rather in a virtual 3D world which is created artificially. You literally enter this world while sitting in your room by wearing a special headset. Similarly imagine doing your daily chores in real world but not exactly in reality. Sounds beyond comprehension right? Metaverse is considered to be the next printing press, or as said by some, the next Internet. This magazine introduces you to a variety of topics from blockchain and Artificial Intelligence to the Metaverse changing the way of the world.The topic is in line with the department's philosophy, which promotes the deployment of innovative solutions as well as looking ahead to the next decade of possibilities.

As the editorial team, we tried to establish a solid foundation in most of the topics related to metaverse and how it's going to play a huge role in all of our lives in the future.We would like to express our heartfelt gratitude to our Principal Dr. BK Mishra Sir, Vice-Principal Dr. Kamal Shah, our department's HOD Dr. Prachi Janrao Ma'am and our faculty in-charge Mrs. Anushree Patkar Patil Ma'am for constantly guiding us throughout the editing process resulting in this wonderful magazine.
 As editors we had a great time in editing this magazine and hope that all of you find it as informative and interesting as we did.

Abhir Iyer
Shahrukali Syed
Sakshi Dubey

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INTO THE METAVERSE

INTRODUCTION:-

Metaverse is a completely a digital world where the person will be represented in the form of their "AVATARS" they can meet and communicate with each other. We can also attend various events across the world without actually being present there. These avatars can be represented according to our own will. Metaverse is based on block chain technology and hence it is decentralized. The transactions in Metaverse will be done through crypto currencies like Etherium, Solana , Mana etc.

APPLICATION:-

• Gaming Industry
• Marketing Industry
• Film Industry
• AR/VR Industry
• Businesses
• ED-TECH Industry
• Real Estate Industry

-AI&DS-Akhilesh Singh
-AI&DS-Aditya Vishwakarma

CAREER/EARNING OPPORTUNITIES:-

• **Graphic Designer:-** Creating the metaverse, avatars and accessories for upgrading the looks of the avatars is the great way of earning for graphic designers but it would have been a great profession before DALLE 2.0 . It is a project from OpenAi which automatically generates the images on the basis of the description provided by the user so this could be also be a risky career

• **Digital Marketing:-** Digital Marketing would be the most thriving carrier in metaverse as most of the traffic will be accumulated there and the marketing industry runs on the basis of traffic the promotions and the advertisements can be shown on the online world as we see it in our real world for eg big boardings, posters etc.

• **Block Chain Developer:-** As metaverse and transaction in metaverse will be completely dependent on block chain technology thus the block chain developer will be a booming carrier in the coming future as everyone will be shifted to metaverse tand there will be a very high demand for the developers which will surely ensure them a bright future ahead.

INVESTMENT OPPORTUNITIES:-

• **Investment in Virtual Land:-** We can buy digital land in metaverse by using crypto currencies which can be considered an asset as it can create a recurring income for the owner.

• **Investment in Crypto Currencies:-** As metaverse will be in demand the transactions in it will also increase simultaneously and the transactions can only be done through Crypto Currencies this will create a high demand of the digital currencies which will eventually increase their value in the market.

• **Investment in Metaverse Index:-** metaverse index represents the the overall trends of the meta market or the meta currencies ie the cryptocurrencies We can bit on the overall performance of these assets, as it could be fluctuating in short term it can give a very high return in long term.

-AI&DS-Akhilesh Singh
-AI&DS-Aditya Vishwakarma

ADVANTAGES OF METAVERSE:-

• We can attend a event or a meeting without actually travelling to the venue but the sense of actual meeting will be there since each and every person participating will be represented by their avatars.

• Since the work spaces will shift to metaverse the employees can work without leaving their home which will reduce the need for travelling which will eventually reduce pollution.

• It will also be beneficial for students who travel a long distance for their colleges as they can attend their lectures from home without missing the actual vibe of the classroom as he can communicate and interact with everyone .

• The data and the hard earned money of the people will be safe and secure as the blockchain cannot be hacked and it cannot be changed without the permission.
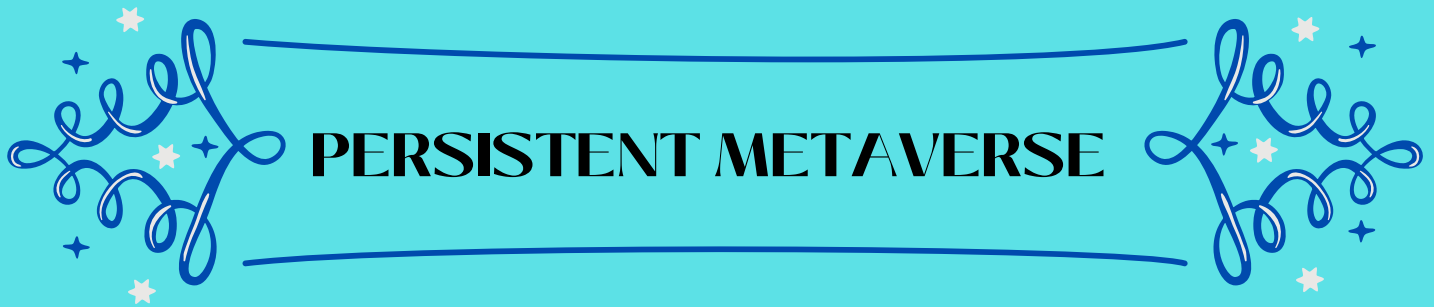
DISADVANTAGES OF METAVERSE:-

• The Automobile Industry will be highly affected in a negative way as no one will be travelling to their work places.

• Only 59% of the world population is using 4G network but accessing metaverse require high speed internet which can be provided by a LAN port or 5G network thus the remaining population will not have the previllage to access this technology.

• Monitoring and censoring will be a hectic task for the companies providing the service.

• It will adversely affect the mental health and physical health of the user as he will not be experiencing the true colors of the world but will always be in his own virtual world which will disconnect him from their near one's

At the end , the verse we are experiencing won't be the future at all , the predictions and assumptions made by the giants could and will change the mindset of the individuals , make their souls to adapt the future of the world i.e METAVERSE .

--AI&DS-Ankush Tiwari

PERSISTENT METAVERSE

Many nations have used video conferencing software applications for remote education during the COVID-19 epidemic. These software platforms, however, were unable to reduce immersion and imitate the classroom environment. Several of these limitations were addressed by the newly emerging Metaverse, which provides hybrid both digital and physical environments. The objective of this article is to explore how the Metaverse can help and enhance e-learning. Based on the poll, the most recent implementations of blended learning platforms in education highlight the most important challenges and possibilities. In order to achieve real-time coordination of a large number of individuals and activities over physical and virtual learning environments, the article focuses on the software architecture of the Metaverse education. Here, Metaverse aims to convert the conventional physical classroom into a virtual-physical interactive session.

The concept of Metaverse is not fresh; indeed, it has already been discussed previously in science fiction novels like Snow Crash (1992), and it achieved some recognition and also with the launch of the Ready Player One movie(2011), which is an interpretation of the novel. However, Metaverse grew in popularity after Mark Zuckerberg made the Metaverse project official in October 2021. Various future goals and implementation models have started to be provided by many scholars and educators in their educational approaches. The surge of interest in the educational environment may result from a variety of sources, including the virtual environment that offers realistic depictions of people and enhance the social aspects of education and learning. The term is new, though it's important to look at the latest discoveries in Metaverse research.

--AI&DS-Ankush Tiwari

It is also capable of creating a virtual world and producing a practical world situation for the student to excercise essential skills which is referred to as Mastery Learning, it can also provide many other facilities to the learning platform like entering a moon's surface, visiting other celestial bodies, learning to drive a vehicle or gaining hands-on instructions by experts. Also an aspiring future fashion designer could be able to design a store where customers throughout the world can virtually meet the dealer and try on the clothes before making a purchase.

The Metaverse does have the potential to contribute in enlarging the innovations in the education engagement. This makes it obvious that Metaverse will transform the educational landscape worldwide.

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--AI&DS-Vrushali Sandam

WHAT IS METAVERSE

Metaverse, metaverse, metaverse!! Are you cognizant about metaverse? Let me give you a brief preface of metaverse so the Metaverse as a conception was first chased by Neal Stephenson in his novel Snow Crash (1992) where he envisaged a parallel environment to the internet where people could use avatars to interact with each other. This is principally what Facebook has been trying to do through their Metaverse. More specifically metaverse is nothing but a virtual Universe inside the this world we can make friends, virtual pets, virtual fashion particulars, attend events, play games and numerous further it has virtual economies and occasionally 3D model of real world with different people creating their avatars and experiencing in this virtual world ,interacting with each other's avatars.. Feel interesting right!! Now the question arises that how we can access the metaverse? To enter into the world of metaverse, originally we should know which platform we've to enter because there are hundreds of these virtual worlds created every day! You might need a new icon . Technologies like 3D reconstruction, virtual reality(VR) and augmented reality(AR), blockchain, Internet of Things(IoT), and Artificial Intelligence(AI) make the metaverse more immersive.

Artificial intelligence(AI) More Lately, AI experts have been studying the possibilities of applying AI to the creation of immersive metaverses. Metaverse became the favorite buzzword since Facebook changed its name

--AI&DS-Vrushali Sandam

to Meta. The social media mammoth poured coffers into a new division called Reality Labs to spend at least 10 billion bones in 2021, to feed for its rebranding. The sandbox is the one of the leading gamified virtual worlds, both in strong hookups and the number of active druggies.

It's powered by the Polygon blockchain and allows players to produce, trial, and have fun with 3D voxel means and lands. Challenges The metaverse is still in its early stages of development. Some issues of metaverse include identity authentication and privacy control. Another challenge is privacy. The metaverse relies on AR and VR bias. These technologies could ultimately lead to inferior leaks of particular information.

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--AI&DS-Dipasha Chaturvedi

METAVERSE BEYOND THE HYPE

Metaverse, the next "big thing", very recently dethroned IoT (Internet of Things) in regards to popularity. Just when we thought that we have reached the peak of interconnectivity, the concept of metaverse heads breaks into another realm of communication. The metaverse has been one of the most talked about topics in the media over the past few months. Despite all this, there is still no universally accepted strict definition and arguably there is still some hype surrounding the topic. Often confused with Web3 or simple video games, built on the convergence of numerous technologies, the Metaverse represents perhaps the greatest market opportunity of the next 20 years. While still in its early stages, the Metaverse will change the way people interpret and interact with technology and themselves. Some define the Metaverse as a virtual world platform where people can interact with each other. For the purposes of this article, we consider it as a broader term for seamlessly connecting the physical world to multiple virtual world platforms using existing or new interfaces.

Some experts say the 3D experience is one of the most important aspects of the metaverse. As Metaverse provides higher network speeds and advanced interactions, the gaming industry is at the forefront of the field, and it's had a decade of head start in developing such experiences. The closest examples related to the metaverse are gaming platforms such as Roblox, Second Life, and Minecraft. These gaming platforms offer users an immersive 3D

experience with synchronized views. However, current platforms have performance limitations and can only support a few hundred users on the same server.

In 2021, two key events determined the formation of the Metaverse. The first was Facebook, which renamed itself "Meta", and the second was the IPO of Roblox, which reached an $80 billion market cap. Bloomberg predicts the metaverse will be an $800 billion market by 2024.
Here are some areas that will be critical in the Metaverse:

1. Education : The metaverse in education can be viewed as an educational environment enhanced by metaverse-related technologies that blend with elements of virtual and real educational environments. Learners can use wearable devices to enter educational environments anytime and anywhere, and use digital identities to interact with many kinds of objects in real time. As a result, you will feel as if you are in a real educational environment. From this perspective, we can see that applying the Metaverse to education can provide learners with a variety of wonderful learning experiences.

2. Digital Identities: Each user in the metaverse can customize their own digital identity in the form of an avatar instead of a static image. Building digital identities is more customized and sophisticated than ever before. For example, you can edit the details of your avatar's face, body, and even facial expressions.

3. Tourism: The scale of the cities built in these worlds is huge, made possible by AI-based generators. Another exciting possibility is creating worlds that fit distinct eras of humanity.

--AI&DS-Dipasha Chaturvedi

Now what the industries and even you fellow students should take away is that the Metaverse may go through a hype cycle in the months and years to come, but it delivers a stable and promised vision. Facebook has taken a giant leap in recognizing the importance of virtual worlds, and other big companies will follow suit. You should see companies starting to build short- and long-term strategies around the metaverse. Large investments are also planned in

this area. This accelerates development, speeds up development, and enables you to deliver in less time. Experts predict that the next five years will see many great solutions and innovations in this area.

A new generation will easily adapt to the new paradigm. Companies that target this segment today and want to sustain it for life will benefit from making the Metaverse experience as enjoyable as possible and proving highly lucrative. It offers great potential for social and economic progress. And it brings risks and challenges, many of which are predictable. We hope that lessons can be learned from previous technological advances, and that the rules,

standards, and norms that govern the Metaverse evolve as the technology itself evolves……… And much more!

METAVERSE-THE MAIN MANSION FOR THE FUTURE?

What does metaverse actually means?

We are currently in 21st century, the modern-day world has touched several marks of excellence especially in the field of technology, and as youth or the "GEN-Z" we call ourselves, our youth has been quite greatly active on social media platforms. The connections between the financial, virtual, and physical worlds have become increasing each passing day. Words like crypto, blockchain, metaverse are few of them which has enhanced the living in the field of science and technology. Well, we all are very well-versed with the term universe. Universe is all real and it contains several components including the stars, galaxies, asteroids, planets, etc the similar way metaverse can be defined as virtual or imaginary digitalized world. The computer, virtual reality (VR) world etc would act as the major components of metaverse. Its basically concept if digital, 3-D universe combining various virtual spaces together, to work, meet, socialize in their spaces.

We all know, how advancement of technology has taken us to several steps ahead in technology, everything has become easier as sharing on our fingertip. The advancement in the fields of Artificial Intelligence (AI), Data Science (DS), Machine Learning (ML), bought us all in a new world already where robots like Sophia have become quite familiar and can do all the chores similar to human race. The application of meta can now widely seen in gaming industry where games like Fortnite are quite famous. Also, Ravis Scott's virtual in-game music tour had application of metaverse. Even cryptos has wide variety application which includes digital proof of
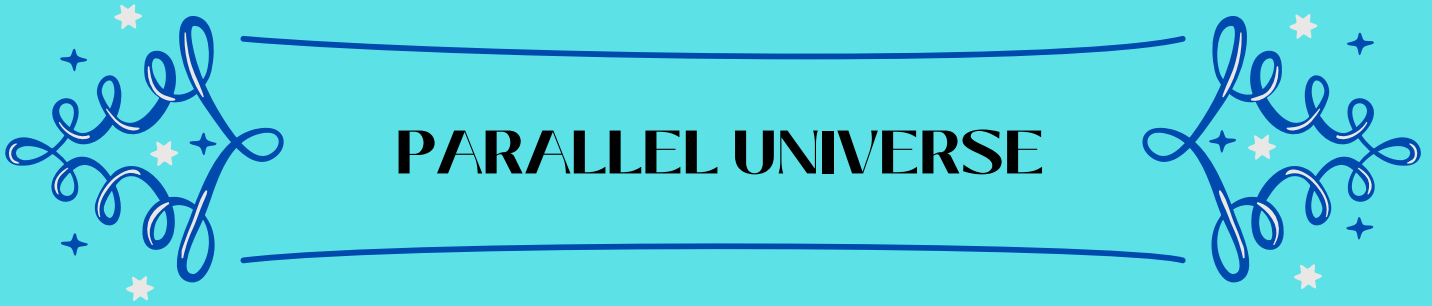
--AI&DS-Ananta Pandey

ownership, transfer of value, governance, and accessibility. These various key parts can be easily accessed through meta, as meta is quite helpful in socializing with the community.

The existence of virtual reality has quiet great interconnections with metaverse fact. Virtual reality can be defined as use of computer modelling and creating 3D artificial environment to make it user friendly. Combining all these aspects together, metaverse can be altogether a new world created to implement the ideas in the field of technology right from grasping the advantages like socializing, digital games, etc. the implementations can be seen in a small scale viz through Mark Zuckerberg's Facebook application. Our social media idols like mark Zuckerberg, Elon musk who show their great interest in the field of new reformations with the technology, hence forth its widely seen that since past few years, mark Zuckerberg's Facebook has been changed and is now under ownership of meta, not just Facebook but also other social media applications like WhatsApp, Instagram are currently under the meta itself. These are the currently emerging social media platforms. Getting these social media platforms under Meta's control shows how impact it can create with its weapon of creating a socializes environment along with gaming industry which considers two main domains under itself.

But as we know every coin has two sides, the concern for privacy, security, etc comes into consideration and could create a great threat. However, metaverse could be a huge disaster if not used in optimistic scenarios, the leak of privacy can harm the certain part of the society and definitely the users. Feasibility, and other social issues are a big challenge in advancement of metaverse. Either way, metaverse could be a huge hit and could create history for setting a pioneer in the world of virtual reality.

--AI&DS-Aman Singh

PARALLEL UNIVERSE

We all know that internet is a boon to mankind. All the information is just available on our finger tips. Moreover , it helps us in advancing our knowledge by providing updated information. Currently , we surf on the internet and we get to see the things in 2-D form. But we all like advancements in technology. What if we get a chance to surf the things in 3-D . Won't it would be amazing and out of the world feel? That's what Metaverse is all about which takes us in virtual reality. In layman's language it's just an updates version of internet. This topic has gained more attention after Facebook has announced itself to be the first metaverse company in the world. Metaverse is simply a virtual copy of the same physical world in which we live . The virtual world would be the combination of different technological devices and it would be made operational by the metaverse companies. The word Metaverse is a combination of two words namely meta that means beyond and verse which means universe. Today whatever we are doing in the physical world like gaming, video conferencing , emails could be performed digitally. It is not a game or product or technology made by a single company but basically a technology that wil connect us to the 3-D world of virtual reality.

After the pandemic , we all are well aware about work from home . Metaverse can be use to create a proper virtual environment with proper interaction among them. Also , metaverse has a great future in the field of education, where lots of concepts that are difficult to be explained 2 dimensionally can be done 3 dimentionally.To develop the metaverse, Facebook will work with

experts in government, industry and academia in order to think through issues and opportunities in the metaverse. Success of metaverse depends on building robust interoperability across services only then experiences of different companies can work together.

Facebook will also involve human rights and civil rights communities to ensure that these technologies are built inclusive and empowering way. Metaverse is still in its nascent stages. It is unclear how long it will take to be fully developed or to what extent it will be able to replicate real life. However, one certain thing is that it has the potential to be the next revolution in the virtual reality world.

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--AI&ML-Aman Yevge

WEB3: THE FUTURE OF INTERNET

Web3 ! What's That?
The answer to the question "what is Web3 or Web 3.0" is essentially only that it's the next stage in the development of the internet, coming after Web 2.0. Even while there isn't a clear explanation of what this evolution would include, we can already see hints of what it will ultimately look like. Web3 is expanding on and building upon preceding internet generations, just like those before it. The read-write-own or read-write-execute form of the internet is what is meant by this. We are already observing some trends that will influence the Web 3.0 ecosystem, including decentralisation, privacy, machine learning, and safety.

Quick Rundown of Internet's History
Web 1.0 is a read-only internet that enables users to access content from websites.
Web 2.0 is a read-write web in which users may both read and produce information on
websites and apps.
Web 3.0 is a read-write-interact web that allows users to read, write, and interact with content
on websites and applications, including 3D visuals. It is powered by artificial intelligence.

--AI&ML-Aman Yevge

Features of Web3
• **Decentralization for integrity**
• **Privacy through Blockchain**
• **Security through Encryption**
• **Machine Learning through AI**

How might this all fit into the metaverse someday?
Although it's difficult to predict, Huang predicts that the metaverse will use blockchains to manage the storage of digital assets. One possible application is the safe and transparent registration of digital assets including sound, music, immersive experiences, and games by producers in the metaverse. Additionally, Web 3.0 AI might be able to create for you unique metaverse worlds or games depending on your likes and personality.

How Web3 might change your life!
In the future, your data will be yours and you can use it to create a better life. Every time you make an online purchase or perform a search, businesses may collect your personal information. By harnessing the data you control to create personalised experiences for you, AI may serve as your own personal butler. AI might also allow you to create unique environments and games. Examples of Web3 companies, platforms and networks
There are already a large number of successful Web3 instances. Solana, Polygon, Cosmos, and Ethereum are a few well-known Web3 networks. OpenSea, Coinbase, Ledger, and MetaMask are a few well-known Web3 systems. These platforms and networks frequently offer the sale of NFTs or cryptocurrencies like Bitcoin.

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--AI&DS-Bhavesh Yadav

SOCIAL MEDIA WITH METAVERSE

A virtual world that that has made a strong impression on the youths and which is made for people to have real time interactions and experiences across distances using various technologies is metaverse. But actually what can it do? What are the limitations?

Well have you ever thought of visiting a place, travelling somewhere and experiencing things but in the virtual mode? Is yes is your answer then metaverse has got your back!

Metaverse an integrated network of 3d virtual world that can be experienced through a virtual reality headset. It basically helps users navigate the metaverse using their voice commands, feedback controllers or their eye movements. The Metaverse could create better ways to communicate with those who are far away. It could give users easier access to doctor visits, shopping, work, and styling.

Social media with metaverse is that possible? The answer is yes! It is. While it gives a platform for various brands to come and showcase their product in the virtual mode that will help users to experience the products without actually physically visiting the store it will also help boost the profits of any business.

--AI&DS- Bhavesh Yadav

Alluring social life:
One can think of experiencing their dream life in the virtual platform. The XR (extended reality) platform feature will ensure it is immersive and provide heightened sense of 'being there'.

Advertising and Branding:
Many premium brands such as Nike, Gucci and McDonald's have seen an opportunity in the metaverse and already started developing products that can be later sold as NFTs in this virtual world. VR, augmented reality, virtual worlds are being used by creative brands which would later help in creating more immersive customer experiences that build identity and brand awareness in younger generations.

Will social media be safer in the metaverse?

A potential danger in the social media domain can be the more engaging, addictive and immersive world than anything we have seen before. On the brighter side, it would be easier for us to interact with our friends and family. A new, more immersive social media – one that's harder to walk away from simply because it's so much more engrossing and entertaining – can clearly cause great harm. This can be a form of boon or bane.
The metaverse is definitely an exciting and fast-moving area. Unlike any other thing it also has cons but pros can't be neglected because of that. Making sure to grow in this modern age and have knowledge of newest of all technologies one has to be a part of the metaverse.

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--AI&DS-Sunny Yadav

IMAGINE INCORPORATING VR IN ANIME

I'm certain there are many different opinions about whether that makes me an Otaku – a term used to explain a person enthusiastic about Japanese tradition, in particular anime. however, I'd say it doesn't matter. so long as I just like the content, I'm glad to watch more. Today we have a look at anime but with a twist: what if instead of being on a laptop or mobile screen, people could see and interact with their favorite characters within the metaverse? Or experience the anime like a story telling narrative where the viewer gets to decide some crucial decisions which in return could manifest many different outcomes which would be more immersive like a VR game.

A company seeking to do simply that these days got acquired. LiquidX, a Web3 undertaking capital studio, has acquired a 70% stake in Anime Metaverse, an anime- and manga-centred publishing and licensing business enterprise. Anime Metaverse is trying to paint with popular anime manufacturers to release their characters as NFT collections. The platform's other capabilities consist of an in-sport economy, where they can earn sport rewards like pets, consumables, and land, alongside actual-world benefits like anime merch which consist of figures, t-shirts, etc. some initiatives have already started, the most famous presently is LOA (Lives of Asuna).

LOA is a thrilling anime-associated area comprising NFTs based on drawings bearing an uncanny resemblance to anime characters. The NFT space created via Zumi now has a collection of about 10,000 NFT.

--AI&DS-Sunny Yadav

Anime enterprise always had a fascination with VR. A glance over the most famous anime series and movies, from older entries like Pyscho Pass or toM the latest boom of so-called Isekai series, such as Overlord or SAO, indicates properly tons eastern target market getting enthusiastic about being transported right into a virtual world.

Due to covid pandemic, everyone got shut-in which increased the usage of OTT platforms which had a positive impact on anime consumption globally. The streaming platform reported a 48% growth in homely watching at least one anime title in 2020. moreover, Crunchyroll, which Sony is attempting to buy for $1.2 billion, brought an additional a million paid subscribers in about six months. Anime may still be considered niche, but its momentum within international entertainment is building quick and due to the influx of large companies like Sony and Liquidx, worldwide popularity this may imply that we're one step in the direction of seeing fan-preferred anime characters in virtual reality.

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--AI&DS-Kanchan Singh

PRIVACY AND DATA SAFETY DEMANDING SITUATION

The metaverse affords top notch possibilities for businesses, groups and individuals, however it desires an up to date and dynamic privateness and information safety regime that protects all hobbies and permits for similarly technological advances.

Mainstream adoption of the metaverse is probably now no longer that a ways away. We can see motion in the direction of completely immersive virtual stories via augmented and digital truth advancements, the elevated use of cryptocurrency and its underpinning blockchain infrastructure, in addition to the superiority of digital gaming worlds like Roblox, Minecraft and Fortnite. While there may be palpable buzz and exhilaration approximately the destiny of the metaverse, what does this imply for privateness and information safety? The very nature of the metaverse throws up quite a number complex (however now no longer insoluble) information privateness issues for commercial enterprise and governments alike. Solving the ones will permit us all to liberate the fee the metaverse promises.

The manner wherein the metaverse works calls for the collection, processing and disclosure of extraordinary volumes of private information. This consists of a swathe of what may also contain biometric or fitness statistics, including consumer movements, physiological responses, or even mind wave patterns.

While the collection, processing and disclosure of biometric and fitness statistics aren't absolutely at odds with privateness and information safety regulation, they Give   specific demanding situations and necessitate heightened safety.

--AI&DS-Kanchan Singh

What is the distinction among the internet and the metaverse?

The internet is a community of billions of computers, tens of thousands and thousands of servers and different digital devices. Once online, net customers can talk with every different, view and have interaction with websites, and purchase and promote items and services.

The metaverse doesn't compete with the net – it builds on it. In the metaverse, customers traverse a digital international that mimics factors of the bodily international the use of such technology which includes digital reality (VR), augmented reality (AR), AI, social media and virtual currency. The net is some thing that humans "browse." But, to a degree, humans can "live" withinside the metaverse.

Read about the differences between AR, VR and mixed reality here.

Even governments may also increase their attain into the metaverse. For example, at the same time as maximum nations have a highly static presence at the net, Barbados plans to open a diplomatic embassy withinside the metaverse – specifically, the web global Decentraland.

The boom of the net has spawned many offerings which might be main the manner to the introduction of the metaverse.

"In gaming you spot Roblox, Minecraft and different immersive video games – or even Zoom – foreshadow what the metaverse is designed to offer," stated Ben Bajarin, an analyst at Creative Strategies. "You actually have a form of virtual presence on social media."

Now he says it's a query of what shape the metaverse in the long run takes. Will it's open just like the internet? Or will it's greater of a gated revel in managed through some massive companies?

--AI&DS-Kanchan Singh

Metaverse businesses
Here are numerous businesses with their very own metaverse visions.

Facebook

In an open letter, Facebook CEO Mark Zuckerberg stated his company's metaverse funding represented a essential alternate and turned into a part of a brand new imaginative and prescient for the social media massive designed to "convey the metaverse to life."

He additionally stated that Facebook is a metaverse-first, now no longer Facebook-first, company. That's an critical alternate as it manner customers finally won't want a Facebook account to apply different offerings withinside the metaverse. Among different non-Facebook products, Facebook has already bought hundreds of thousands of its Oculus VR headgear devices for navigating the metaverse.

In the Meta statement, Zuckerberg stated Facebook ambitions to boost up the improvement of the essential technologies, along with social structures and innovative gear, required to "convey the metaverse to life." After the Meta information dropped in past due 2021, Facebook released Horizon Worlds, a VR area that customers can navigate as an avatar, and gear for builders to create extra digital worlds.

--AI&DS-Kanchan Singh

Epic Games

Epic Games, makers of the famous on line shooter sport collection Fortnite – with a few 350 million customers – and the Unreal Engine software program for sport builders, deliberate to stake a declare withinside the metaverse following a $1 billion spherical of investment in 2021. This included $2 hundred million from Sony Group Corp.

Epic Games' imaginative and prescient of the metaverse differs from Facebook's in that it desires to offer a communal area for customers to engage with every different and brands – with out a information feed riddled with ads.

"I strongly consider that this aligns with our cause to fill the sector with emotion, thru the energy of creativity and era," stated Kenichiro Yoshida, chairman, president and CEO at Sony Group Corp. In a statement.

Microsoft

The metaverse is coming to Microsoft Teams – the software program massive's on line conferences competitor to Zoom. Microsoft stated it's going to launch Mesh for Microsoft Teams in 2022. The new provider shall we Teams customers in one-of-a-kind bodily places be part of collaborative and shared holographic stories at some stage in digital conferences.

Microsoft stated Mesh will permit customers set up a digital presence on any tool the use of a custom designed avatar of themselves. This builds on the sooner statement of Mesh for Microsoft, a platform for builders that consists of a set of AI-powered gear for avatars, consultation management, spatial rendering, synchronization throughout a couple of customers and "holoportation." Holoportation is a 3-D seize era that shall we customers reconstruct and transmit superb 3-D fashions of humans in actual time.

--AI&DS-Kanchan Singh

Microsoft has already been running with expert offerings organization Accenture to create Mesh-enabled immersive spaces. Accenture hires extra than 100,000 humans each yr and makes use of Mesh to assist onboard new employees..

How do NFTs suit into the metaverse?

Nonfungible tokens (NFTs) determine to play a huge position withinside the usefulness and recognition of the metaverse. NFTs are a stable kind of virtual asset primarily based totally at the identical blockchain era utilized by cryptocurrency. Instead of currency, an NFT can constitute a bit of art, a track or virtual actual estate. An NFT offers the proprietor a form of virtual deed or evidence of possession that may be sold or bought withinside the metaverse.

Metaverse Properties bills itself as the world's first virtual real estate company. The company acts as an agent to facilitate the purchase or rental of property or land in several metaverse virtual worlds – including Decentraland, Sandbox, Somnium and Upland. Offerings include conference and commercial spaces, art galleries, family homes and "hangout spots."

While the metaverse has created possibilities for brand new businesses together with Metaverse Properties to provide virtual goods, hooked up a brick and mortar businesses also are leaping in. For example, Nike obtained RTFKT – a startup that makes one-of-a-type digital footwear and virtual artifacts the use of NFTs, blockchain authentication and augmented reality. On its website, RTFKT stated it was "born at the metaverse, and this has described its sense to this day."

--AI&DS-Kanchan Singh

How near is the metaverse?

While the simple concept of being capable of body in a digital on-line international has been round for plenty years, a real metaverse wherein sensible interactions are feasible continues to be years away. In his annual 12 months in overview weblog post, Microsoft co-founder Bill Gates stated that maximum humans don't have the VR goggles and movement seize gloves to as it should be seize their expression, frame language and great in their voice.

But for business, Bill Gates predicts that withinside the subsequent to 3 years maximum of the digital conferences will pass from dimensional to the metaverse three-D space with individuals may be acting as virtual avatars withinside the conferences.

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--COMP-Deepesh Kesarwani

METAVERSE IN CLASSROOM

Abstract

Modern technology drives every area and industry in the twenty-first century. Since everyone is paying attention to digitization, corporations are starting to take innovative technologies like Metaverse into consideration.

For people to engage in social contact that is enhanced by wearable technology, Metaverse is a virtual environment that integrates Virtual Reality (VR) and Augmented Reality (AR). The word "Meta" implies beyond, while the word "verse" is derived from the universe, which only obliquely explains the meaning of the term. However, Metaverse is a lot more than just the sum of two words. It brings together a number of cutting-edge technologies, including Web3.0, Blockchain, NFT, gaming, virtual real estate, digital avatars, and much more, to give users an immersive experience.

Metaverse in the Education System

How about using Metaverse in the educational sector? Everyone typically criticizes the lack of a practical approach in teaching and learning techniques while discussing education. A history professor can virtually educate students about ancient civilizations like Harrappa and Mohen-jo-Daro, while a science instructor can effortlessly teach physics principles like Newton's Laws with the aid of Metaverse. Students can even travel digitally around the world to study geography. Thus, it is visible that the Metaverse has the potential to change our educational system.

--COMP-Deepesh Kesarwani

Numerous businesses, startups, and academic institutions around the world are looking into the potential benefits of the metaverse for education. The Korea Advanced Institute of Science and Technology (KAIST), a foreign institution, is developing a plan to establish a virtual metaverse campus at its Kenya-KAIST site. They wish to maintain the same degree of educational excellence as other reputable campuses. Additionally, they want to cut down on students' commute time.

Educational Transformation in India

How can India, a nation of innovators, fall behind these technological transformations in education? There are numerous start-ups that aim to spread education through these digital marvels of the Metaverse. Tanay Pratap is a co-founder of the Bengaluru-based start-up "Invact Metaversity," which promises to deliver affordable education online. Earlier, the platform was planned to provide a 16-week "metaMBA" programme intended to increase students' employability and provide a reasonably priced university-like environment in the metaverse. Each student paid 2 lakh for the service. "We'll stop referring to it as an MBA. We'll think of a new name," promises Pratap. However, the majority of the course and the metaverse learning environment will stay the same.

"Price adjustments will be made in order to make the course more affordable. Our USP is not metaversity. We don't market that. These are only tools. The media are provided free of charge. You demand a fee for the instruction.Pratap from Invact Metaversity continues, "Technology is likely to fix a lot of problems but it is merely a delivery method." "We shouldn't overhype it. The overhype hurts technology. That is what occurred with AI [artificial intelligence], repeatedly and repeatedly. You believe it will fix every issue, but it won't. Because humans can solve issues, but not the technology . Technology is merely a tool.

--COMP-Deepesh Kesarwani

Conclusion

In order to provide you a phygital voyage, the metaverse has the capacity to bridge the gap between the physical and digital worlds. Brands are implementing this technology in order to maintain a competitive edge in the market due to its growing recognition across numerous industries. However, according to industry analysts, Metaverse is a trend-setting element developed on an open platform with its underpinnings available to everyone, which will facilitate smooth adoption.

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--AI&DS-Varun Sodhani

METAWORSE
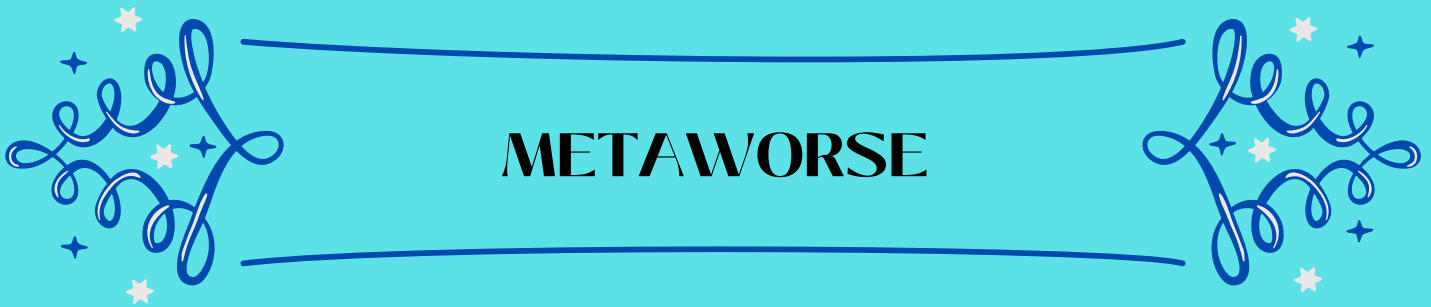
AYes, you read that right. Metaverse is here to make everything worse. Remember those goths and furries that dominated the niche internet spaces meant for people who loved to escape their boring reality and be something entirely different than their regular self? Now those people have become mainstream and brought with them a new wave of damaged individuals who cannot cope with their constant suffering. These people might only be slightly inconvenienced, but they act as if their world will end if they divert some effort into being productive citizens.

Metaverse, at first looks like a very promising place to meet people and their digital avatars from around the world, but there are a lot of long-term implications that laymen forget to take into consideration. This virtual reality will be much more sophisticated and would have a greater degree of flexibility that is not allowed in conventional AR/VR programs. Flexibility will almost certainly lead to exploitation by sinister people. This space will not have any way of verifying a user's information without the data collection process bordering on technocratic control. One the one hand, it is imperative to segregate people based on age so that older predators cannot meet children. On the other hand, any attempt at verifying the age entered by a user would require government-issued identification which has no business being in the hands of all-powerful thought police like Facebook or Twitter. The consequences of opening up a virtual model of society is that people who can't or won't deal with reality will flock to this place like moths to fire.

--AI&DS-Varun Sodhani

Recently there has been an uptick in the number of suicides among people suffering from various paraphilia. Such individuals usually have severe schizophreniform disorders coupled with mid-life crisis. They are also the reason that younger populations, especially young adults, start gravitating towards transvestite fetishes and zoophilic tendencies. Some of these older people go online with the express purpose of grooming vulnerable children to become like them. Their modus operandi includes the use of false rhetoric and clever manipulation to make the teenager think that something is wrong with the body he/she was born in, and that they need to alter it via medical intervention for living a perfect life.

You may wonder how Metaverse factors into this entire problem. The explanation is very simple. If such a strong influence can be created by a groomer via text or audio messaging, imagine how much more he could achieve if the teenager's digital avatar could interact with his avatar in real time. The child could form a false bond with the predator that would be stronger than otherwise possible. The grooming wouldn't just be limited to inducing transsexual deviancies into the child, it could also be done to exact sexual favours. The increasing problem of child pornography would be exacerbated by such an extensive network of virtual reality nodes.

People already having a having a hard time in the real world would feel like Metaverse is the perfect opportunity to escape. Men who think they are women or women who think they are men would feel entitled to be accepted by everyone as the opposite sex. Their incorrect real-life convictions would be reflected in their online persona and their online persona would have a drastic effect on their self image. Being clocked as their authentic selves by someone online could lead to suicidal thoughts or feelings of not belonging anywhere.

'Couch-dwellers' in the USA have grown to such enormous sizes that forklifts and construction equipment sometimes fail to lift these people out of their

chairs. They are primarily lonely gamers whose entire lives revolve around some or the other MMORPGs (Massively Multiplayer Online Role-Playing Games). These roleplaying games have a small degree of freedom with respect to character choices or customizations but Metaverse has all of that and much more. If people can get addicted to rudimentary tactical games, then it can be argued that the effect of Metaverse would be much worse.

Upon careful analysis it is clearly visible that blurring the line between reality and virtual worlds would lead to people becoming severely depressed and lonely because they wouldn't be able to communicate face-to-face with anyone. Furthermore, it can be proved with certainty that social ills like transgenderism and harmful sexual deviancies will increase manifold until the suicide statistics become so skewed that various nations would have to ban even social media along with the Metaverse.

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--COMP Jay Gupte
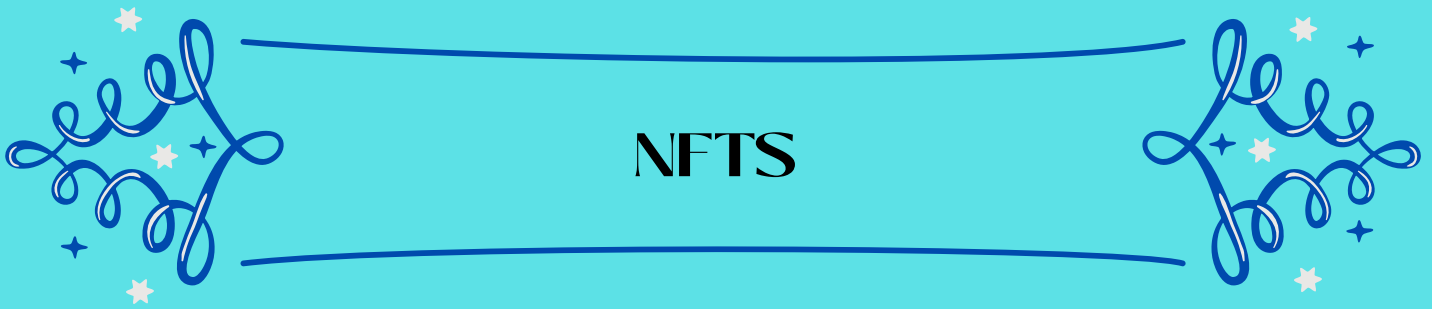
NFTS

The metaverse and NFTs can be described as two of the biggest and highest potential for businesses. Even though these popular topics captivate a lot of attention and interest, not everyone is well-versed with the concept.

What is the metaverse?

This is a hypothetical idea of a virtual reality headset-enabled 3-D digital environment in which a user can design a "body" (avatar) virtually. It is possible to explore countless locations as well.This makes the metaverse very useful because it reduces the need to travel and use physical resources. A user can even furnish their home with the things they like. Users can communicate with other people, complete tasks, play games, and pretty much do everything else humans do every day, except of course, eat and sleep.

What are NFTs?

NFT stands for Non-Fungible Tokens; basically tokens which are 100% unique. They are created when a digital file like an image or video is minted. This indicates that a cryptocurrency-based certificate of ownership and originality is produced, and usually sold or granted to the new owner. It is quite simple for someone to steal and copy digital arts and assets, however since NFTs are unique and certified, it is almost impossible for them to get stolen or copied from their rightful owner.

--COMP Jay Gupte

How are NFTs used in the metaverse?
NFTs are generally associated with websites and transactions that occur through web browsers. However several companies have already found creative and innovative ways to use both, NFTs and metaverse simultaneously.
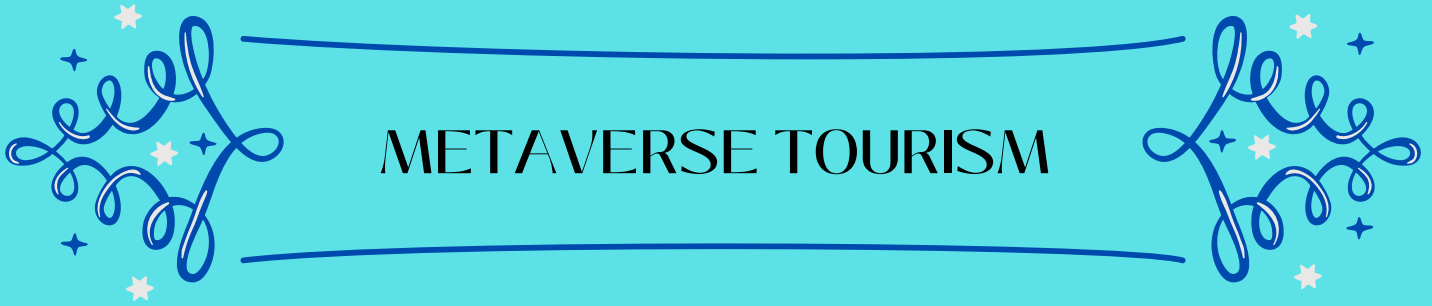
Virtual marketplace: In the near future NFTs will be recognised as a currency in the multiverse. Companies can open shops or sell their products in the multiverse, and customers can buy these products using their NFTs. The virtual marketplace will be a revolution for the way you shop on a day - to - day basis.

Art Gallery: The metaverse using Virtual Reality is probably the best method to view expensive artwork. You get to see the artwork up close with every detail and from every angle. This type of solution differs from a marketplace because the prices are already set. The assets are all of one type ie. art compositions and the atmosphere is much more relaxed.

In conclusion, NFTs in the metaverse will change how the world works. Although the metaverse is getting a lot of publicity, it's important to remember that it is still in its development. Early users and investors in the metaverse, have a potential to attain large economic rewards.
With so many possibilities in the developing metaverses, this might be a good moment to invest in cryptocurrencies and NFTs.

--AI&DS Parth Ghag

METAVERSE TOURISM

Metaverse

Let us quickly understand in short that what does this word "Metaverse" means.

The Metaverse is a vast network of persistent, real-time rendered 3D worlds and simulations that may be experienced simultaneously by an effectively infinite number of users, each with their own feeling of presence. The term "metaverse" originated as a combination of "meta" and "universe" in the 1992 science fiction novel Snow Crash. For public use, other metaverses have been established, such as virtual world platforms like Second Life. Some metaverse iterations incorporate the merger of virtual and physical locations as well as virtual economies, with a strong emphasis on the advancement of virtual reality technology.

Metaverse key prospective use cases:

The term "metaverse" refers to a vast notion. The primary sectors where thousands of VR developers from all over the world are already working include gaming, working environments, tourism, education, and so on.

Let us discuss how Metaverse can help to inspire Travel

Virtual tourism is one of the most innovative applications of the metaverse. You can travel in virtual space thanks to technology, so you don't have to physically visit the

places that interest you. According to experts, the development of an immersive digital environment integrating virtual and augmented reality will be a game changer in the field of virtual tourism. A digital area with genuine material could become a product that partially replaces traditional travel.

In the metaverse's immersive reality, technology instruments provide the user with experiences such as sight, hearing, touch, and even scent. Aside from the cost of acquisition, the use of
these new technologies puts into question the perception of the senses that connect humans to their surroundings.

The metaverse is created by the interplay of a device, a user putting themselves in the shoes of a tourist, and other observers. Although the encounter is virtual, the senses are stimulated by simulating conditions that are wanted but not available at the time.

The virtual reality headset or haptic sensors allow us to encounter previously ethereal things and reconnect with our senses through immersion. A metaverse user can embody a visitor by building a virtual tour route, engaging with other avatars, and picturing how they feel, triggering what Giacomo Rizzolatti refers to as mirror neurons.

How is the Metaverse changing Tourism Industry ?
The COVID-19 epidemic highlighted one of the ways the tourism industry is possibly vulnerable, but there are others. For example, when public awareness of climate change grows and more action is required, it is possible that customers would prioritise domestic rather than international travel.

Potential Benefits of Tourism in the Metaverse :
While it is critical to understand how metaverse tourism is influencing the sector, business owners and other decision-makers must also be aware of the practical benefits. Below are some examples of how this type of tourism technology might benefit businesses:

Motivate tourism-related purchases :
One significant advantage of the concept of metaverse tourism is how it might serve to generate inspiration for travellers. For example, interactive virtual reality experiences can reproduce real-world landscapes and give travellers a good notion of what to expect when they visit a specific location. The same idea may be extended to hotels and transportation, with virtual reality experiences assisting potential guests in understanding what establishments have to offer or how long a journey will take. Finally, the metaverse can aid to excite travellers and persuade them to book or buy something.

Improve the Booking Process :
Apart from offering inspiration, metaverse tourism solutions have the potential to significantly improve booking procedures by providing essential information that cannot be communicated accurately in other ways. This increases the likelihood that a consumer will complete their booking experience rather than cancel it.

Increase the number of bookings :
Finally, the capacity of metaverse tourist products to improve overall booking volumes is the true value of metaverse tourism offerings during the booking process. This is caused by a combination of the preceding two elements. Customers can initially be inspired by virtual and

augmented reality travel technologies, while the actual experience of booking hotels, restaurant tables, and other such services becomes much more fun, informative, and valuable as a tool for influencing purchasing decisions.

Examples of Tourism Companies Making Use of the Metaverse:
- **VR Tourism - Immersive Virtual Travel**
- **Augmented Reality in Tourism**
- **Facilitating Online Trade Shows and Expos**
- **Virtual Theme Parks and Other Attractions**

--AI&DS Rahul Chauhan

METAVERSE GAMES FOR IMMERSION

The phrase "metaverse" has gained popularity recently as more companies recognise it as the technology for the future of business. Even while the word is increasing being used to referd to "internet" and "online," its connotation can still be rather ambiguous. It's important what the phrase metaverse means because it's being dub the next great thing.

The word metaverse describes technologies that give users the chance to interact with interconnect virtual world. Its name, deriv from the Greek word meta, which means beyond, and universe is essentialy an extension of physical world. To enter and engage with others in these 3D worlds where they represented themselves as avatars, real people use online games and apps. These online community actions mirror those in real world. Items can be created, bought, sold, invested in, and other players. As users move through an ecosystem of rival product the Metaverse effortlessly combines gaming, virtual reality, live streaming, and social networking. For instance, a player who purchase a piece of digital art from one game create by one firm may use that same item in a separate game created by a differents companies.

There are no pause, game overs, or resets in the metaverse, in contrast to more prevalent digital games nowadays. Furthermore, seamless experiences, including 360- degree views of the digital environment, are made possible by quick internet connections. Best Top Metaverse Games:

.Axie Infinity

In 2018, Axie Infinity was released by the Vietnamese startup Sky Mavis. Axies are imaginary creature that player may breed, nurture, gather, and trade in this Pokemon-inspired game. Each monster contain aproxx 500 customizable body component.Depend on the genetic makeup of their offsprings, Axies develop different traits and ability. Axies can engage in combat with other Axies or treasure hunting to win prizes. For your Axies to reside in, you can purchases lands and houses that you can build using the platform resources. In this game, the virtual pet and other objects have value in the form of non-fungible tokens which are digital ownership certificates thatare managed by blockchain technologies In order to acquire tokens, players can also locate scholars or individuals to whom they can lend three of their Axie. The primary unit of exchange in the game is the Axie Infinity Shard. Players also receive smooth love potion or SLP tokens for defeating foes and finishing missions in the game. Tokens for AXS and SLP are required for breeding Axie.

2.Decentralands

In year 2020, Argentine partners Ari Meilich and Esteban Ordano unveiled Decentralands to the general audiences. In this virtual worlds with over 9000 land parcel, you may create avatar, purchase wearables, and buy real estate using the MANA money. Each lot, which is 18 virtual square metre, can be rented out by a landowner for whatever is on it, including homes, hotels, parks, theatres, casinos, and other structures. Additionally, you can make money by settings up an exhibit where digital arts will be auction of, arranging a concert and selling ticket, etc. One of the widely used digital wallets that users of this site utilise is MetaMask.

3.Sandbox

Arthur Madrid and Sébastien Borget, co-founders of Pixelowl in France, first release Sandbox as a smartphone games in 2013. It's another usergenerated platform where users, represented as mutable avatar that resemble block, can claim ownership of the content they produce using blockchain and smart contracts. Three main things are offer by Sandbox. Create avatars, vehicles, plants, animals, tools, and other items using the 3D modelling software Vox Edit. The Marketplace, Sandbox's second offering, allows you to export your works so you can sell them there. From the Sandbox map, you can choose estates (a group of territories), which you can buy and sell. You have the choice to market these properties in the Open Sea NFTs market.

4.Alien Worlds

Launched in 2020, Alien Worlds assigns you the role of a space explore who must mine Triliums the in-game currency, from six planets. Your vote rights are determines by the amount of TLM you stake on a planet, and each planet has its own elected government. You start out with the shovel, but it's ideal to buy your own land or pay a landowner to start mining if you want more TLM and more potent mining equipment. You can also gain tokens by engaging in mining task and combating other explorers.

5.Farmer World

You can purchases properties in Farmers Worlds which will be published in 2021, to mine gold, raise livestock , catch fish, and create homes for your farm animals. The market at Atomic Hub sells tools. Milk and egg are among the product that are produced on your virtual property and are NFTs.
You can trade or sell the harvest to other player. You'll have to protect your farm against other intruders (red and white tribes) as well as other players who can steal your resources, or fight off jungle monsters from your farm premises.

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--COMP Rina Patil

METAVERSE THE UPCOMING TECHNOLOGY

In today's world we see why people are so eager for an alternate reality and the reason is pretty obvious because everybody wants a way to reboot the system and start fresh. TheseVirtual worlds are so appealing because they provide a space where power can be inverted, disappointments can be avoided, and capitalism inequalities can be replaced with something more interesting, adaptable, and meaningful. Isn't it?

So what's exactly METAVERSE ?

METAVERSE is an idea of a persistent, networked, 3D cosmos that combines many virtual spaces is known as the metaverse and it can be compared to the internet in the far future where users will be able to collaborate, interact, mingle, and play together in these 3D places. Although the metaverse isn't entirely realised but there exist certain systems that include components that are similar to it. At the moment, playing video games offers the closest metaverse experience available.

On the Metaverse, users can play games, work, interact with others, and own virtual properties. This presents kids with countless options for interaction, education, and curiosity exploration. The Metaverse can be a artificial place where you live or a game. It can even be a virtual world like you see in the movie Ready Player One.

--COMP Rina Patil

What's the future of the metaverse?

Talking about the future of Metaverse then One of the most vocal voice of Metaverse is Facebook. Due to Facebook's Diem stablecoin project, this is very intriguing for a crypto- powered metaverse also, Mark Zuckerberg has made it clear that he intends to create a metaverse project to promote remote labour and expand financial prospects for citizens of developing nations. Facebook has a head start in fusing these disparate worlds together because it owns social media, communication, and cryptocurrency platforms. Microsoft, Apple, and Google are just a few of the other major IT firms aiming to build a metaverse.

Along with this Metaverse is genuinely helpful especially for NFT holders, who can already sell their products from a variety of sources on online stores like OpenSea and BakerySwap, but there isn't a well-known 3D platform for this just yet. On a larger scale, blockchain programmers might create well-liked metaverse-like programmes with more natural users than a huge tech company.

Businesses using Metaverse
Metaverse carries abilities to replicate the real-world using revolutionary technologies like AR and VR. Businesses gain from the metaverse in numerous ways. Every organisation will utilise Metaverse apps in accordance with its business model and users' unique needs, it is known.

- 3D narrative experiences, which can be considered as an upgrade from audiobooks
- Can perform interoperable notion
- Businesses can engage with worldwide audiences
- Businesses can control smooth transactions through Digital wallets

Education and Learning using Metaverse

The Metaverse's potential for education and learning is as exciting as its other uses. VR can prove to be extremely useful in this case as students can learn virtually with more visualizations. High quality information can be made available to students, helping them to learn in a more efficient way. Subjects like astronomy can be taught in a virtual space as opposed to a classroom. The next generation of students have an impeccable form of education waiting for them. Metaverse can remove language barriers by enabling students from different parts of the world to learn from the same digital areas.

Other uses:

Metaverse can prove to be extremely useful in social media as well as healthcare fields. It can provide stressful treatments to anxiety patients by simulating a peaceful environment. It can even change how people enjoy internet entertainment. Avatars and virtual clones have been implemented for users to communicate.

--COMP Rina Patil

Concluding this then, more than virtual reality makes up the metaverse. Practically speaking, one of the core technologies for creating the metaverse is virtual reality. Users can access the metaverse thanks to it. VR, on its own can only perform a certain set of tasks. The metaverse is a sizable and slowly expanding virtual environment that would contain a 3D depiction of the internet. Users can navigate around virtual 3D places in the metaverse, much like they can browse through various online pages. Most importantly, there is no restriction on how innovation can be introduced into the metaverse.

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-- AI&DS Sharukhali Syed

‼ THE REALITY OF METAVERSE ‼
IS OUR FUTURE WORLD IN DANGER?

Metaverse is a hypothetical iteration of the Internet as a single, universal and immersive virtual world that is facilitated by the use of virtual reality and augmented reality headsets.

Metaverse is nothing but what we say as virtual reality(where we wear VR googles and then we are able to perceive things in 3D), augmented reality(where 2D picture is created in such a way that is seems to be 3D) Facebook is basically running behind this concept of metaverse and the CEO of Facebook Mark Zuckerberg is so excited about this technology that he changed the company's aim from just a social media site Facebook to a company which will the handling the entire VR world and this was the reason why Mark Zuckerberg has changed name of the company to META and is capturing all the social media companies like Whatsapp, Instagram, etc and is building an empire of all the major social media sites and hence it will become very easy for META to implement this concept of metaverse to the social media sites.

Zuckerberg is envisioning a digital e-commerce empire. We know how Facebook became one of the world's most effective and lucrative advertising machines, then the metaverse of Zuckerberg's dreams will be the largest and most dynamic shopping mall ever made.

-- AI&DS Sharukhali Syed

MESSAGE OF MARK ZUCKERBERG

"We hope to basically get to around a billion people in the metaverse doing hundreds of dollars of commerce, each buying digital goods, digital content, different things to express themselves," Zuckerberg told CNBC's Jim Cramer yesterday.

"So whether that's clothing for their avatar or different digital goods for their virtual home or things to decorate their virtual conference room, utilities to be able to be more productive in virtual and augmented reality and across the metaverse overall," he said.

Zuckerberg clearly sees Meta's advantages right now — owning the most popular VR platform, investing in early AR hardware and operating social networks used by billions of people — as the reason the company needs to move fast lest it cede any ground to rivals.

It's the dream plan of mark Zuckerberg to capture this field of VR which seems to be emerging and become highly popular in the coming future.

COMPANIES CURRENTLY INVOLVED IN DEVELOPMENT OF METAVERSE

- Many companies are investing lots of money for it
- Epic games has spent a total of 2 billion for 3D gaming and virtual reality games.
- Microsoft is using the virtual reality for its Microsoft teams so that people can collaborate with each other virtually but they will get the feeling of reality as if they are communicating with each other in real
- Facebook as said earlier is the company moving for capturing the entire VR platform

-- AI&DS Sharukhali Syed

BUT IS THERE SCOPE FOR METAVERSE ?

As we have seen how google glasses failed because whatever is possible through this glass is also possible through phone and it is done more efficiently and accurately in case of phones. Video calls on the phones are much better than the glasses and hence people felt this as useless device having less accuracy (since there were many technical faults, as it was a new technology)

BENEFITS

In this Metaverse people can create their own world, the people can artificially interact with each other and can built a artificial community. People can create their own Avatars where they can do anything which is possible in this real world (except eating food) the people can buy all the stuffs with the use of digital currency like bitcoins, etc and due to this the demand and use for the bitcoins is going to increase drastically. People can play games in 3D where they get a feeling as if they are playing these in real

DANGER FOR FUTURE

As we all know Facebook is working very hard for the development of metaverse but if so happens then all our data will be lost to META (Facebook, Instagram, WhatsApp) since META will be tracking all our data and will be using it to earn revenue by selling our data to various product companies , etc
Also it may seem like people are living in this metaverse, who's king is META since all our data will be tracked by the company.

-- AI&DS Sharukhali Syed

So basically this would be equivalent to our all our search details, private data are being exposed to meta and then they will use it and will try to sell products to us based on our work history on the platform of metaverse and virtual reality.

This concept of metaverse doesn't seem helpful because if people adopt it then they will be totally immersed in it and then they will lose the connection with the real world .Also it can affect the brain and mindset of the next generation because the next generation will get immersed in it and since it would be very addictive and can have long lasting and irreversible affects on the brain of the next generation, also it will lead to medical problems like people will face problems in vision, headache, etc

If digital currency will be used then there will a lot of issues regarding the security and privacy. It can be said that virtual reality can bound the coming generations into a box and the coming generations will be trapped in a world which is unreal and is just created for the sake of profit by the big tech companies.

METAVERSE in short is a hypothetical universe where the user can create it's own different life and become its controller but by doing so he can become the destroyer of its real life i.e its real world where he is living in, if metaverse is used in improper manner specially by the teenagers and even adults.

SOLUTION TO THE DRAWBACK

This concept of metaverse is very beneficial for the corporate and professional people and can also be very beneficial in the education field since a single teacher can teach a huge number of students virtually and the

-- AI&DS Sharukhali Syed

students can get a feeling as if the teacher is teaching in reality in front of the student and also the concepts can be very well explained to the students through virtual reality.

But if the same metaverse is thought in case of gaming, then it can be detrimental for the society and the coming future since it could de-track the coming generations towards this highly addictive path and this could affect the development of the coming future.

-- AI&DS Vivek Shah

USES OF CRYPTO TECHNOLOGY IN METAVERSE

Gaming technology is very much similar to metaverse as it can provide all aspects of it but fails to provide things that are needed in a virtual world that has almost all life features. Other key parts that are needed, are provided by Crypto technology, such as digital legal proof of ownership, transfer of resources, administration, and accessibility. As Metaverse has the ability to give features through which we can work, socialize or even buy virtual assets or products in it, but in order to do that we would be needing a secure way of showing or proving legal ownership.

Also, if we were to sell or buy a particular asset, we would be needing a safer way of transferring these assets and currency around the metaverse safely here and there. No doubt that we would like to participate in the decision-making process which would be taking place in the Metaverse, if it is very much important. Most of the games already have most of the basic solution for the game to function, but through Crypto and Blockchain technology we can achieve a much better secured and optimal solution to many problems.

Blockchain has an easy, efficient and transparent way of solving the problems, on the other hand, video game development uses techniques that are more centralized and much complicated. Blockchain developers also take references from the video game world as well.

-- AI&DS Vivek Shah

Even though Blockchain technology is way better than gaming technology, still Blockchain developers also take ideas for implementation from the video game world. Gamification is too much common in Decentralized Finance (DeFi) and GameFi.

As the current pace of technological advancement, we can already foresight that there will not be very much difference between the virtual world and the physical world.

Some important aspects of blockchain that can be implemented in the metaverse are:

1.The proof of authenticity and digital ownership:

Nowadays, everyone has a virtual wallet, in which we enter the passcode for the access and do payment by entering another passcode. Just like that, in Metaverse we could access our wallet by using our private password, this way we can instantly give proof of our ownership of a particular activity or an asset. For example, you can provide an correct explanation of your exchanges on the blockchain such as statement of the transaction whereas at work to appear responsibility. A wallet is at a few levels the foremost secure and strong strategies for setup a computerized character and confirmation of proprietorship.

2. Digital collectability:

Just as how we can prove who owns which asset, we can also show that an asset is original and unique, for a metaverse looking to add up more real-life activities, this is very necessary. Through NFTs, we can create objects that are 100% unique and copying the precise

duplicate of it is nearly inconceivable. With the help of Blockchain, we can also represent proprietorship of physical things.

3. Exchange of resources and assets:

A metaverse will require a way to exchange resources safely that users trust. In-game resources such as currencies are not much secure than crypto on a blockchain as it can be hacked. In the event that clients or users are investing significant amount of time within the metaverse and even gain cash within the metaverse, they will require a reliable currency they can trust.

4. Administration:

it is necessary to control the rules of your interaction with the metaverse. In real life, we have voting system in companies and elect leaders and governments. Also, in metaverse, there is a need of fair governance, and blockchain has already proven its abilities of doing this.
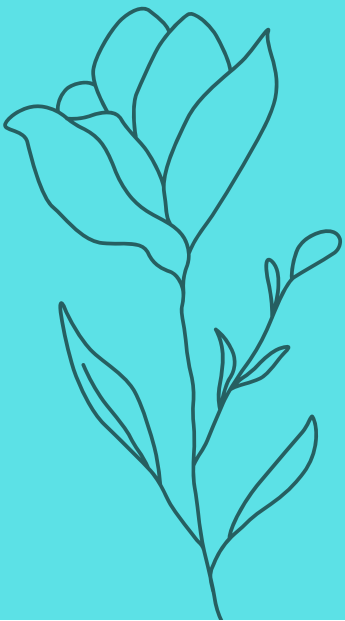
5. Easy Access:

There should be a wallet that is open to anyone around the world on public blockchains. Unlike bank accounts, you do not need to pay any money or supply any details. This is what makes it one of the most accessible ways to manage finances and a digital identity.

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Faculty Article

FACULTY ARTICLE

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Metaverse Studio focuses on opening portals to digital spaces for our partners by providing a seamless pipeline for digital twin generation and enhanced content production systems, resulting in a presence in the different virtual online worlds.

Metaverse Studio is a tool for creating your own augmented reality learning experiences. With Metaverse you can create interactive, augmented reality games and challenges for students to complete on their phones or tablets.

Metaverse Studio is a block programming interface. This means that you don't write code. Instead of writing code create your augmented reality experience by selecting commands and selecting pieces of media from a menu. Put the commands together in the proper sequence and your augmented reality experience can be used on any iOS or Android device. Metaverse Studio makes it easy for anyone to create augmented reality experiences

The international Metaverse Studio market is expected to reach $848.8 billion by 2030, growing at a compound annual growth rate (CAGR) of 39.1 percent from 2022 to 2030.

With such significant growth in market value, it's plain to see the growing popularity of the Metaverse Studio is poised to change the game industry's outlook.

Aside from that, the artificial intelligence and virtual technology industries are expected to undergo a considerable transformation in the future years. As a result, it will drive the worldwide Metaverse Studio market forward.

The Metaverse Studio's ultimate goal is to enable a greater cross-over of our digital and physical lives in wealth, sociability, work, shopping, and entertainment. This is true whether the experience is in virtual reality (VR), augmented reality (AR).

Dr. Anand Khandare,
Associate Professor,
COMP

WHAT IS THE METAVERSE EXACTLY?

Is the talk of the CEO'S like Mark Zuckerberg or Satya Nadella, it the future of the internet, videos games, or zoom it's hard to say. It's been almost a year since facebook has announced its rebranding and has expressed their interest in improving metaverse. But till now there is no clearer picture of what metaverse is and how till contribute large in the field of virtual reality. Companies like meta is already invested in it, they are building a VR social platform, Roblox is facilitating user-generated video games and many more. Metaverse is still new and its lack of coherence is because of the less research that has been on metaverse and it is still being built, and it's too new to define what it means.

Seriously, What Does "Metaverse" Mean?
To help you get a idea of how ambiguous and complex a term "the metaverse" can be, here's an example: replace the phrase "the metaverse" in a sentence with "virtualspace." Ninety percent of the time, the meaning won't significantly change.
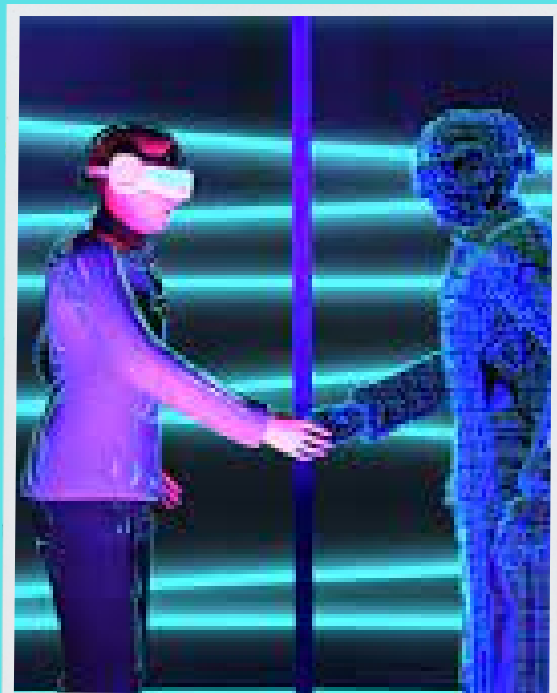
Metaverse refers to a broad and speculative shift of technology, that is capable of virtualy representing and realworld space. It allows users to be virtual present in an environment that And it's entirely possible that the term itself will eventually become just as antiquated, even as the specific technology it once described becomes common place.
Generally debating, the technologies companies refer to when they talk about "the metaverse" can include virtual reality—characterized by determined virtual worlds that continue to exist even when you're not playing—as well as

augmented reality that combines aspects of the digital and physical worlds. However, it doesn't require that those spaces be exclusively accessed via VR or AR. Virtual worlds—such as aspects of *Fortnite* that can be accessed through PCs, game consoles, and even phones—have started referring to themselves as "the metaverse."

Many companies that have leapt on the opportunity of metaverse technology and have come up with new digital economy where users can buy, sell and create goods. The future of metaverse will be bright In the more idealistic visions of the metaverse, it's interoperable, allowing you to take virtual items like clothes or cars from one platform to another, though this is harder than it sounds.

Mrs. Shakila Shaikh,
Assistant Professor,
AI&DS

THE METAVERSE ASSISTS BLENDED LEARNING

Several future agendas and implementation scenarios have started to be provided by many educators and researchers in their learning practices. The growing interest in the educational environment may result from a variety of factors, including the virtual environment that provides real representations of individuals and may improve the social aspects of teaching and learning. The study addresses the necessity to analyze the state-of-the-art of research on Metaverse because the word is still relatively new.

A mix of traditional in-person and online learning is referred to as blended learning as a learning paradigm. Screen-based remote Alearning via video-conferencing systems like Zoom, Google Meet, or Teams has become standard during the COVID-19 epidemic. While some schools have started asking their students and instructors to return to class as the epidemic in certain places has tapered out, the trend of autonomous learning in remote or mixed forms is thought to persist in some lockdown locations. The mix of non-face-to-face and in-

person education is still anticipated to be a viable option for the sustainability of post-pandemic education in light of the uncertainties surrounding COVID-19.

However, Scholars have noted a number of issues with learning via video conferencing, including video conference weariness, exhaustion, a lack of desire, difficulty focusing, desocialization, and depersonalization. The metaverse offers enormous prospects for participation in educational settings using wearable technology for both instructors and students who are placed in various

physical locations (such as at home, in lockdown zones, or abroad). From this perspective, it is simple to accomplish simultaneous or asynchronous in-person and distant learning in the metaverse. Students can engage constructively with real or virtual professors and classmates in different learning situations while taking part in a variety of learning activities using avatars (such as lectures, individual assignments, group panels, and collaborative projects). Instead of merely staring at a grid of faces or dull slides on a screen, people will feel as though they are in the same space together while they are in the metaverse, where they will have more amazing experiences and peer support.

Mr.Amit Tiwari,
Assistant Professor,
AI&DS.

A NEW WAY TO INTERACT WITH INTERNET

Metaverse is a 3D virtual environment where anyone can be anyone they want to be, do everything they want to do, and communicate with anyone else they want to in the whole wide world. It is seen as the future of the internet when virtual reality and augmented reality is combined with real-world environments in a shared digital field. Metaverse is the origination of a virtual world where human avatars are revealed through technology to look real. Facebook, one of the most technologically accomplished companies on this front, is based on the Metaverse notion. Its Virtual Labs partition makes virtual reality headsets like the Oculus Quest.

Due to smaller and more efficient headgear, advancements in technology, like augmented reality and virtual reality, have become more widely available. As soon as the internet has come up, many people predicted that everyone would be engrossed in cyberspace. At the moment, we aren't even aware of the extent to which we are interrelated via the internet.

Here are a few points mentioning why the Metaverse is the wave of the future.
Interaction: How things can be seen from a different perspective, such as while interacting with family and friends during video chats or in workplace meetings can be hypothesized from the current and future state of metaverse opportunities. Face-to-face experiences may also be useful in hybrid circumstances such as consulting with a doctor, meeting with a teacher, customizing clothes, having a good time at an art display, or simply browsing the sales.
Creativity: Higher-quality, faster, and more widely available productions regarding future

advancements can be obtained through technology like 5G. Implementing dynamic creativity in video game programming and augmented reality (AR) and hybrid experiences at events such as festivals and stadiums can be made easier by combining data and AI. Much cutting-edge technology is already plentiful in the market.

Career Opportunity: Many new jobs are in high-demand fields, including animation, programming, sound design, and art. There is speculation among the general public on who will be in charge of conceiving the Metaverse's anticipated future. Hopes are high that Metaverse will present new courses to help cultivate new talent as it will be a welcoming environment.

Metaverse offers a new way to interact with the internet, instead of replacing real-world experiences. Apart from this, the creation of Metaverse will be an international alliance that will include firms ranging from technology giants to start-ups is emphasized by Facebook. The fight for supremacy in the Metaverse has already instigated, with several firms hitting money into numerous projects.

Ms. Neha Surti,
Assistant Professor,
AI&DS.

To improve various areas of digital world and enhance our extended reality experiences evolution in technology is essential. Metaverse is now building a new age of the internet, encouraging the masses to gear up to gain benefit from the internet's next iteration. Metaverse is one of extreme technological progression. Just a few years ago, our capacity for digital communication was limited to voice calls and text messages, and now, with the metaverse, we're exploring possibilities on an entirely different tangent.

Metaverse is currently trending with more people becoming aware of its application, metaverse as a highly immersive internet where users can access augmented reality and virtual reality-based persistent environments and access the offered utilities through their unique forms and other digital technologies. Metaverse gives a new way to interact with internet instead of replacing real-world experiences. Businesses are curious about the various advantages of the metaverse.

All are investing in businesses digitally enhanced worlds to stay with the latest industry and showcase their products & services.

Key points for the metaverse are Augmented Reality and Virtual Reality. To provide engaging and immersive 3D experiences VR technology is utilizing other big technologies to evolve its existing application and enhance the ability of Metaverse Augmented reality extends the use of virtual reality. Virtual reality can only offer a virtual representation of the cars inside the store available in the metaverse

where,Augmented reality allows the buyers to test the car personally before buying through digital test drive. One of the important sector in the metaverse development is Artificial intelligence.

AI's application in the metaverse supports the creation of 2D and 3D based as per the specific characteristics of users.Many new jobs in high-demand fields, including animation, programming, sound design, and art. Metaverse will introduce new courses to help cultivate new talent as it will be a welcoming environment. Metaverse will shape the digital future.

Ms. Bhakti A. Jadhav,
Assistant Professor,
AI&DS.

COMPENDIUM

THE TRANSITION FROM AN 2D TO AN 3D ENVIRONMENT HAS BEEN A HEATED TOPIC OF DEBATE THROUGHOUT THE WORLD SINCE THE PANDEMIC BEGAN IN 2020. WHILE MANY INDUSTRIES HAD PREVIOUSLY ADOPTED A HYBRID APPROACH, IT CAUGHT MANY BUSINESSES AND INDIVIDUALS OFF GUARD, PARTICULARLY THOSE WHO WERE HIGHLY RELIANT ON THE OFFLINE MANNER OF OPERATION. WE CHOSE "METAVERSE – THE GATEWAY TO 3D WORLD" AS THE THEME FOR THIS YEAR'S MAGAZINE TO RECOGNISE THE ADVANCEMENTS IN THE FIELD OF METAVERSE OVER THE LAST FEW YEARS, TRANSITIONING FROM A 2D TO A 3D WORLD IS THE TOPIC FOR RESEARCH IN TODAYS TECHNOLOGICAL WORLD. YOU'LL FIND A NUMBER OF INTRIGUING ESSAYS ON THIS TOPIC WRITTEN BY STUDENTS AND STAFF FROM THE ARTIFICIAL INTELLIGENCE AND DATA SCIENCE DEPARTMENT THROUGHOUT THE MAGAZINE. THIS PUBLICATION IS SURE TO HAVE YOU THINKING ABOUT THE IDEAS, WITH A VARIETY OF VIEWPOINTS AND RESPONSES. THE MAIN CONCERN WAS WHETHER EVERYONE HAD FOUND A NEW NORMAL AND IF FORCED ALTERATIONS COULD WITHSTAND LONG-STANDING PATTERNS AND PROCESSES. DESPITE THE PANIC AND WORRY CAUSED BY THE PANDEMIC, TECHNOLOGY HAS FREQUENTLY DEMONSTRATED ITS USE IN RESTORING GLOBAL NORMALCY. EXPLAINS WHAT IT MEANS IN TODAY'S WORLD AND HOW IT CAN BE BENEFICIAL FOR THE COMING GENERATION AND HOW DANGEROUS IT COULD BE IF USED IN AN IMPROPER MANNER. THE AGE WE ARE LIVING IN WILL BE REMEMBERED FOR A LONG TIME, AND WE MUST REMEMBER TO PASS ON OUR LESSONS TO FUTURE GENERATIONS. OUR MAGAZINE LOOKED AT NOT JUST HOW TO RESPOND TO A GLOBAL PANDEMIC, BUT ALSO WHAT LESSONS WE MAY TEACH FUTURE GENERATIONS.

ACKNOWLEDGEMENT

DETERMINATION, PERSISTENCE AND HARD WORK ARE THE KEY INGREDIENTS TO A DISH AS FULFILLING AS SUCCESS. THIS IS THE FIRST YEAR OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE DEPARTMENT'S VERY OWN MAGAZINE PRAGYAAN. OUR TEAM HAS WORKED WITH A GREAT DETERMINATION AND HARD WORK TO DELIVER THIS FIRST EDITION OF PRAGYAAN. FIRST IMPRESSION IS THE LAST IMPRESSION AND WITH THE HELP OF THIS MAGAZINE AND ITS CONTENTS WE AIM ON CREATING A LASTING IMPRESSION. WE WOULD LIKE TO EXPRESS OUR HEARTFELT GRATITUDE TO THAKUR EDUCATIONAL GROUP'S CHAIRMAN, TRUSTEES, AND CEOS. WE ARE ALSO GRATEFUL TO THE PRINCIPAL DR. B.K. MISHRA, AND IQAC DIRECTOR DR. R.R. SEDAMKAR FOR THEIR CONSTANT ENCOURAGEMENT AND SUPPORT.

OUR HOD, DR.PRACHI JANRAO, AND FACULTY IN-CHARGE, MS. ANUSHREE PATKAR, DESERVE THE HIGHEST PRAISE FOR GUIDING US STUDENTS TO CREATE THIS MAGAZINE. A VERY SPECIAL AND HEARTFELT THANK YOU TO DR. SHEETAL RATHI, OUR DEAN ACADEMIC FOR HER UNCONDITIONAL AND UNWAVERING SUPPORT AND GUIDANCE. HER GUIDANCE AND SUGGESTIONS WERE ESSENTIAL FOR OUR DEPARTMENT TO HELP US BOIL TO CHOOSE METAVERSE AS OUR THEME FOR THE MAGAZINE THIS FIRST YEAR. FINALLY, WE'D LIKE TO CONVEY OUR HEARTFELT GRATITUDE TO ALL OF THE STUDENTS AND PROFESSORS, WHO CONTRIBUTED SIGNIFICANT INSIGHTS AND THOUGHTS THROUGH ARTICLES, ALLOWING THIS TO BE AN INSPIRATION MAGAZINE AND A BENCHMARK FOR THE EDITION THAT FOLLOW NEXT.