SHOPPYVERSE: THE METAVERSE FUTURE

Mayur Gajare[1], Uday Tople[2], Abhishek Singh[3], Prof. Tejal Patel[4]

[1]Parul University, Gujarat, India
[2] Parul University, Gujarat, India
[3] Parul University, Gujarat, India
[4] Professor, Dept. of Information Technology, Parul University, Gujarat, India

--***---

Abstract - Technology is widely spreading and capturing every field as well as every sector with great advancement and efficiency. Technologies like artificial intelligence, machine learning, blockchain, the metaverse, and devops are evolving day by day and adding value to human life by solving some problems or increasing the efficiency of current solutions. This study aims to introduce and explain how to develop an AI-powered, metaverse-based immersive platform that provides services like gaming, events, a workspace, and shopping in the metaverse. The project consists of the following seven tasks: The first task is to create real-life cities and immersive content that will allow users to interact with various assets and channels as well as use metaverse services via mobile and VR in dual mode. The second task is to create an interactive event platform for virtual events, which helps users make events more attractive with great reach. The third task is to create a platform for gamers that allows both gamers and non-gamers to play games in new ways with excellent AI integration. The fourth task is to create a metaverse workspace for various start-ups that are adding the most value to today's society but are struggling with employee communication and high office costs. The fifth task is to create a shopping platform that allows users to interact and try on clothes virtually, bridging the gap between customers and vendors. The sixth task is to develop a business model and, lastly, promote the prototype stage of the platform with a beta version.

Key Words: Metaverse, Web3.0, Immersive, Future, Unreal engine, Blender.

1.INTRODUCTION

As technology is spreading worldwide and making great enhancements, it can increase the efficiency of existing systems by adding some more values and innovation. Our system is a metaverse-based immersive platform that provides services like events, gaming, workspace, and shopping in the metaverse. We will help people experience the whole world at their fingertips with any device, such as a smartphone, computer, or laptop. Our system helps users interact with people in an immersive way, like a real-life experience, from anywhere in the world with a few clicks. We are changing the way of living life and making it digital, which helps to add value or solve some problems with innovative technology.

2. EXISTING SYSTEM

Metaverse is a new and immersive technology; there are fewer existing systems in this domain. Existing systems are still in use. Some systems are currently available, but they lack immersive graphics quality, low latency, and optimization. Metaverse is the technology that is mostly known for immersive Ness and real-life experiences. Today, experience is crucial in any system for customer validation or acquisition. Cloud-based metaverse is important in metaverse, but existing systems have high latency, which makes the cloud experience poor.

Problem And Weakness of Current System:
- The existing system provides a 2D implementation of products, which results in a bad experience in ecommerce.
- The existing system uses hardware for experience, which has a high cost.
- Users are over-addicted to gaming, which results in depression and anxiety.
- Privacy and security undermine user trust in future endeavors.
- Users are not getting real-life experience in the metaverse.
- Users are not well socially connected in the metaverse, which results in bad relationships.
- A business needed high marketing and advertising costs.
- The Metaverse might not be supported by 4G technology.

Requirement of New System:
- Our system provides a 3D view of products, which increases user interaction.
- It provides a mobile-based metaverse experience which costs very little for the user.
- Our time limit algorithm saves users time and stops them from over addiction.
- Our system provides a metaverse experience with an auditory effect, which gives an immersive experience.
- It provides social connectivity with the user's social media handlings.
- When compared to physical advertisements, the system has a lower advertising cost.
- Our system provides solutions for any network, whether it is 4G or 5G.

3. METHODOLOGY

We completed the following tasks in the manner described below in order to complete this project:

- Literature Review: In this stage, we go through a number of various research paper on this subject to learn about the present metaverse purposes.
- Identify Problem: In this stage we identify the problems after reading the various research papers.
- System Design: In this step, we create the user interface for user by they can experience metaverse.
- Solution: In This stage we find out potential solutions So they can make real life experience at single click from anywhere in the world via metaverse technology.

4. PROPOSED SYSTEM

Shoppyverse is a metaverse-based immersive platform that offers services such as event, gaming, workspace, and shopping in the metaverse. We will help people experience the whole world at their fingertips with any device, such as a smartphone, computer, or laptop.

- Event in metaverse: Events are an important part of our lives in any field, whether personal or corporate, but they are very expensive in terms of arrangements, personnel choices, and travel. We provide a virtual event platform that allows users to enjoy and attend events with real-life experience at their fingertips. It enables users to interact with objects and people in the same way that they would in a physical event like real life but in the form of an avatar through the use of mobile devices, VR headsets, and laptops.
- Gaming in metaverse: Users can play VR games on smartphones, PCs and laptops, and gaming consoles. VR gaming control may involve a standard keyboard and mouse, game controllers and motion capture methods. More complex VR rooms may include treadmill floors or similar methods to further the user's sense of freedom of movement and feelings of immersion within the virtual environment.
- Workspace in metaverse: Every startup faces problems with office utilities due to the initial stage or cost of setup, but we have Digi Space, which helps them to arrange or manage their team virtually in a virtual office like real life, in which they can interact with each other like in real life. Plugins and databases assist them in managing work and the work cycle.
- Shopping in metaverse: Customers can browse virtual stores, try on garments in a 3D fitting room, and even obtain a 360-degree perspective of what different outfits look like on a person. Businesses can present their goods in a virtual setting where customers from all over the world can interact with them and try on outfits in a virtual changing room.

Digital avatars can be personalized in any way to seem like their owners, whether through clothing, hairstyles, or other features. Avatars will make shopping easier with friends and salespeople who can guide you through the virtual store, offer suggestions, and help with the sale. Using your digital avatar, you can browse a store's offerings and choose the products you want to buy.
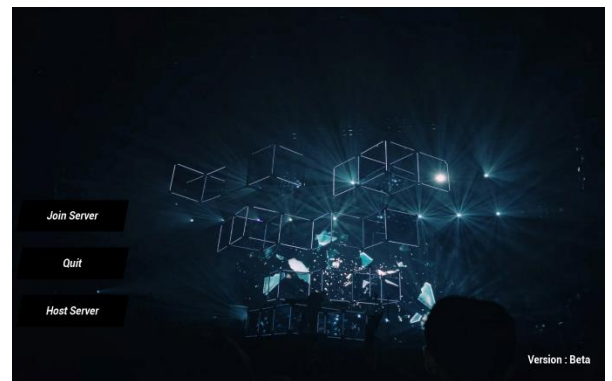
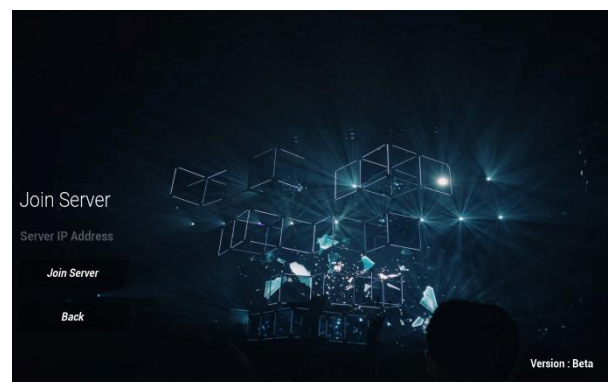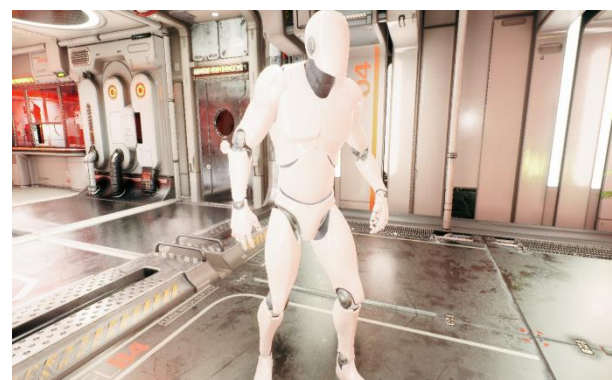## 5. RESULT:

Fig-1: User Connect

Fig-2: Room Connect

Fig-3: User Avatar

Fig-4: Metaverse city

Fig-5: Metaverse event area

Fig-6: Shopping in metaverse

6. CONCLUSION

We are concluding that we are developing the metaverse and AI-powered ecommerce platform that revolutionizes the Indian ecommerce industry and sets an example for the world. Shoppyverse is a metaverse-based ecommerce platform where users can buy and sell products virtually as a traditional experience, an AI-based bargain, or a virtual try-on with an immersive experience in the metaverse. Businesses can set up their startups and stores fully virtually in the metaverse with low cost and high human engagement. Shoppyverse also makes an impact on the advertisement industry by playing ads in the metaverse for customer interest at a low cost without any barrier. Shoppyverse is the basis for social events, museums, banking, and the gaming industry, and it totally revolutionizes them. It also increases social connectivity between users by connecting them virtually but realistically with their perceptive avatars.

REFERENCES

[1] Park Sang-Min, Kim Young-Gab. "A Metaverse: Taxonomy, Components, Applications, And Open Challenges" IEEE, National Research Foundation of Korea (NRF), volume: 10, issue no: 01, 2022, doi: 10.1109/ACCESS.2021.3140175.

[2] Debangana Ram, Roy Bholanath, Soni Vaibhav. "A Review on Virtual Reality For 3D Virtual Trial Room" IEEE, World Conference on Applied Intelligence and Computing, volume: 03, issue no: 06, 2022, doi: 10.1109/AIC55036.2022.9848914.

[3] Zheng Ling, Xu Long, "A Study on Evaluation Model of VR Shopping Experience Based on User-Centered Approach" IEEE, International Conference on Innovation Design and Digital Technology (ICIDDT), volume: 05, issue no: 09, 2020, doi: 10.1109/ICIDDT52279.2020.00065.

[4] Tayal Swati, Rajagopal K., Mahajan Vaishali. "Virtual Reality Based Metaverse of Gamification" IEEE, International Conference on Computing Methodologies and Communication (ICCMC 2022), volume: 02, issue no: 05, 2022, doi: 10.1109/ICCMC53470.2022.9753727.

[5] Cheng Ruizhi, Wu Nan, Chen Songqing, Han Bo "Will Metaverse Be Nextg Internet? Vision, Hype, And Reality" IEEE, George Mason University, volume: 08, issue no: 07, 2021, doi: 10.1109/ACCESS.2021.8627948.

[6] Wang Yuntao, Su Zhou, Zhang Ning, Xing Rui, Liu Dongxiao, Luan Tom, Shen Xuemin "A Survey on Metaverse: Fundamentals, Security, And Privacy" IEEE, volume: 03, issue no: 02, 2022, doi: 10.1109/COMST.2022.3202047.

[7] Peng Wenyan. "Decentralized Storage Design of SNS Open E- Commerce Marketing Model", IEEE, International Conference On I-SMAC, 2021 volume: 06, issue no: 02,2021, doi: 10. .1109/ISMAC52330.2021.9640929.

[8] Babu Ananya, Mohan Priyanka. "Impact Of the Metaverse on The Digital Future: People's Perspective" IEEE, Seventh International Conference on Communication and Electronics Systems(ICCES 2022), 2022, volume: 05, issue no: 04,2022, doi: 10.1109/ICCES54183.2022.9835951.

[9] Mar Gonzalez-Franco. "Metaverse From Fiction to Reality and The Research Behind It" IEEE International Symposium on Mixed and Augmented Reality (ISMAR), 2021, volume: 10, issue no: 06, 2021, doi: 10.1109/ISMAR52148.2021.00011.

[10] Pietro Roberto, Cresci Stefano. "Metaverse: Security and Privacy Issues" 2021 Third IEEE International Conference (TPS-ISA), volume: 10, issue no: 08, 2021, doi: 10.1109/TPSISA52974.2021.00032.

[11] Chandak Abhimanyu, Singh Ashutosh, Mishra Shubham, Gupta Sarishty. "Virtual Bazar-An Interactive Virtual Reality Store to Support Healthier Food Choices" 2022 1st International Conference on Informatics (ICI), 2022, volume: 4, issue no: 06, 2022, doi: 10.1109/ICI53355.2022.9786879.

[12] Qu Muzi, Sun Yinan, Feng Yuan, "Digital Media and VR Art Creation for Metaverse " 2022 2nd Asia Conference on Information Engineering (ACIE) IEEE, volume: 7, issue no: 08, 2022, doi: 10.1109/ACIE55485.2022.00018.

[13] Kshetri Nir, "Web 3.0 And the Metaverse Shaping Organizations' Brand and Product Strategies" Published By the IEEE Computer Society, volume: 3, issue no: 05, 2022, doi: 10.1109/MITP.2022.3157206.