

A person wearing a VR headset is shown from the chest up. The image is heavily stylized with vibrant, overlapping colors. Three semi-transparent faces are layered over the person's face: a red face in the center, a green face to the right, and a blue face to the left. The VR headset is visible at the top, with its lenses and straps. The background is dark, making the colorful faces and headset stand out.

METAUVERSE

The future of the internet

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What is Metaverse?

- The Metaverse is a collective virtual shared space including the sum of all virtual worlds and the Internet. It may contain derivatives or copies of the real world, but it is distinct from augmented reality.
- The metaverse is not a future: It is already here. It is a conversation about becoming not simply being.





Seven Layers of Metaverse

- Experience
- Discovery
- Creator Economy
- Spatial Computing
- Decentralization (Blockchain)
- Human Interaction
- Infrastructure



Why Metaverse

- *Some of the expert are saying that the metaverse will proved to be a disruptive technology for YouTube.*
- *The Metaverse will changed the way the people currently experience things.*
- *It will be more than a social network.*
- *Making the internet not just looking on the screen's but instead of that but making you inside of it.*
- *A living shared everlasting virtual universe.*

Applications of metaverse

- Games
- 3D Museums
- Shopping
- Concerts.
- Virtual Homes.
- Virtual Workspaces.



• Blockchain in Metaverse

- Internet and immersive interactive devices can provide Metaverse with a network foundation, computing power, high-quality content, and interactive
- However, an open and transparent economic system is necessary for ensuring the sustainable operations of the Metaverse, and the solution is blockchain





Open and Transparent Economic System in Metaverse through Blockchain

- The blockchain-enabled economic system can provide Metaverse with financial services, including online payment, value transfer, store of value, etc.
- Example: it gives Metaverse users the ability to identify, confirm, and trade virtual assets.
- the fair, transparent and efficient economic system is beneficial to improving the efficiency of mass collaboration by Metaverse users.

The value of blockchain in Metaverse is mainly reflected in the following three aspects

- Payment and Settlement System
- Smart Contract
- Non-fungible Token(NFT)
- Market Places where every purchase is by using crypto tokens.

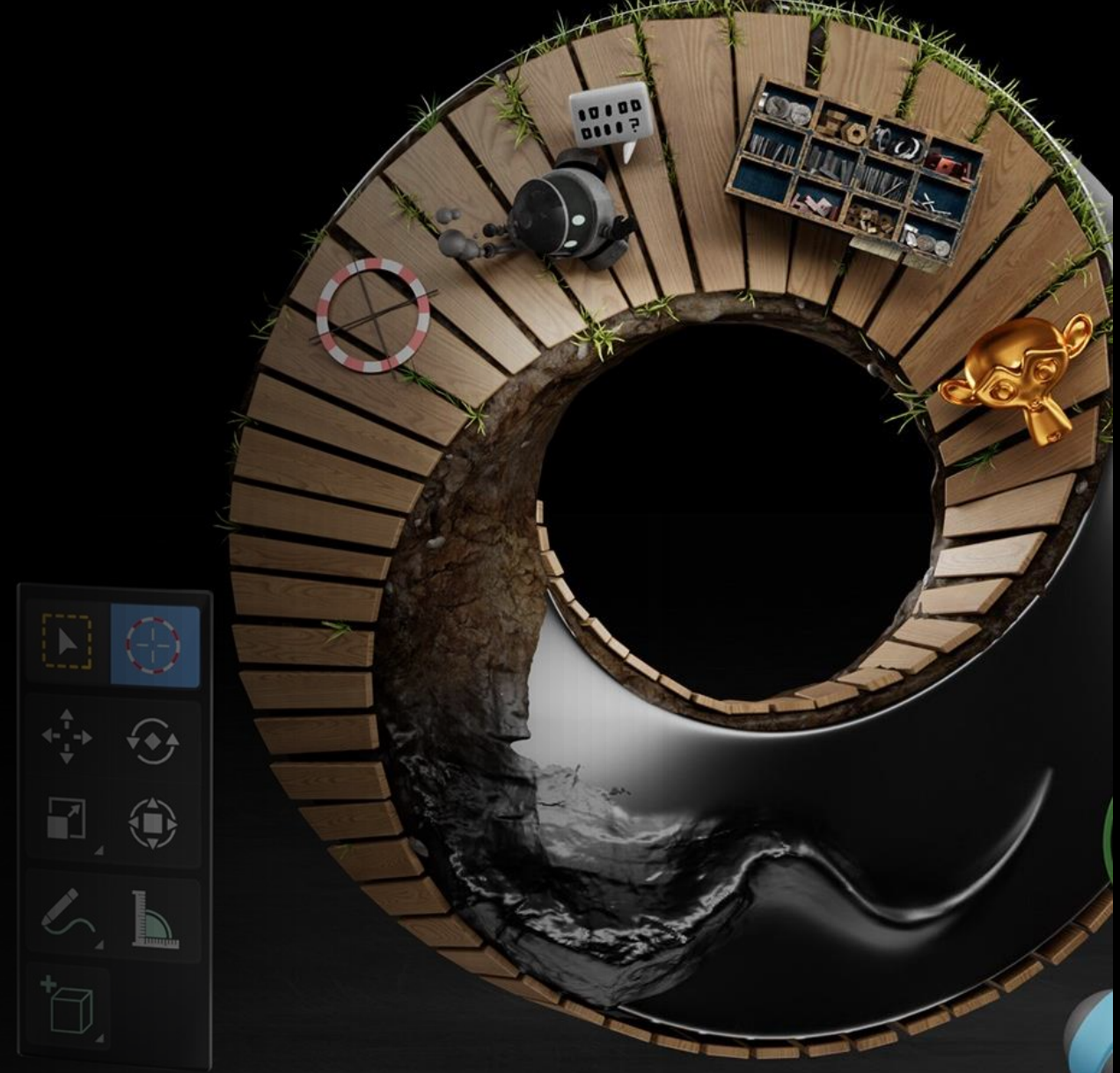


NVIDIA OMNIVERSE VS META METAVERSE



NVIDIA Omniverse

- As NVIDIA omniverse is also one of the leading tech company in the upcoming metaverse technology.
- multi-GPU real-time reference development platform for 3D simulation and design collaboration.
- The fundamental representation of assets in Omniverse is Pixar's open-source Universal Scene Description (USD). USD is a powerful framework and scene representation with an API that allows complex property inheritance, instancing, layering, lazy loading and a wide variety of other key features.



META Oculus

- Meta (Facebook) is highly investing in their VR glasses Oculus.
- Oculus is the key to interact with the metaverse.
- Through Oculus you can explore the Horizon Homes, Offices and many more.
- You can play games, attend parties and can attend concerts and be a part of the virtual world.

 **oculus**
from FACEBOOK

Quest 2



Programming Languages & Hardware for Metaverse

- The metaverse is not a product of one company or of one dev.
- The multiple languages combination make a successful metaverse product.
- Languages:
 - a. For AR : **C#, C/C++, and Java**
 - b. For Decentralization: Depends upon which blockchain is used mostly languages used are Solidity, RUST, Haskell, C++, JavaScript & Python.
 - c. USD Fundamentals (Framework of Nvidia)
 - d. Advanced USD: C++ or Python to generate USD files.
- Hardware:
 - a. OCULUS Quest 2 (Side Quest.apk to develop)
 - b. Nvidia Omniverse (USD framework)

