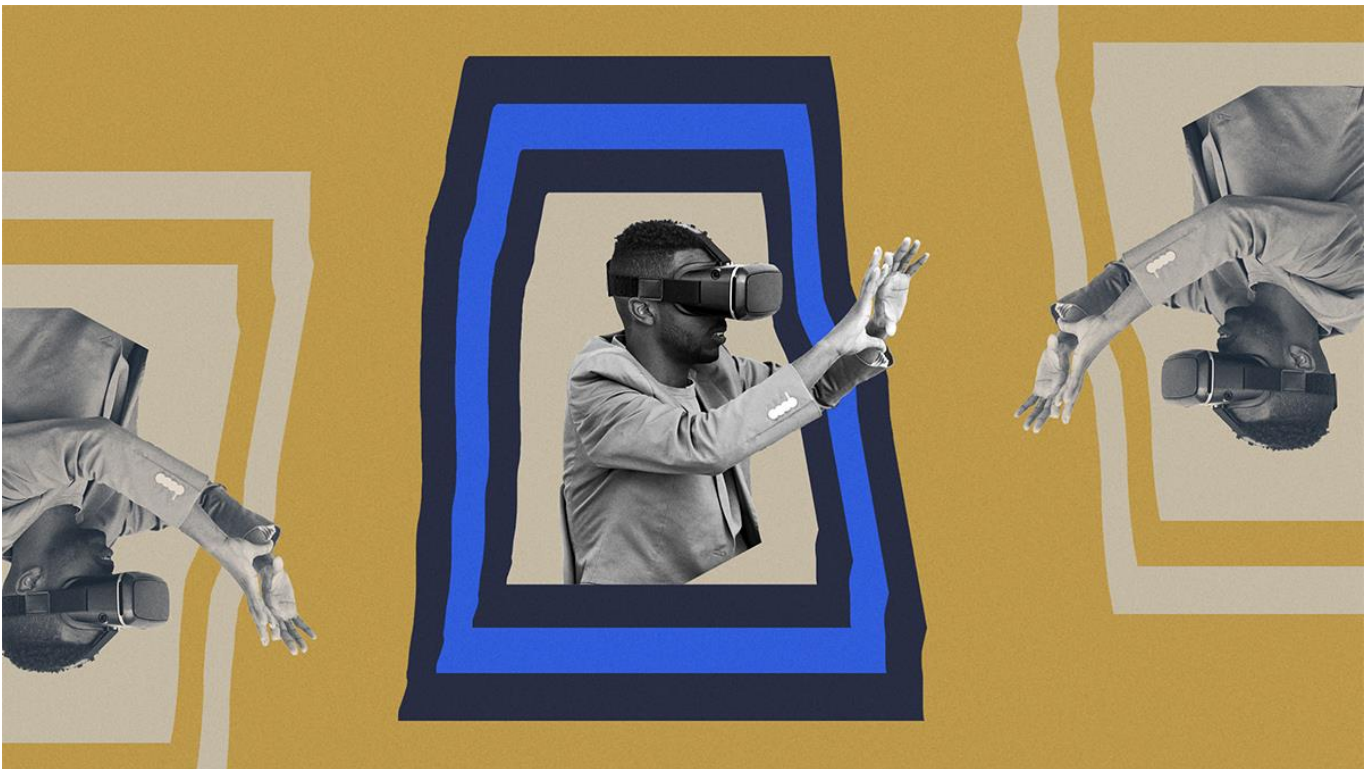


Yes, The Metaverse Is Still Happening

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Summary

There's still much hype around the metaverse. And although no one knows how things will shape out, the metaverse is happening and companies need to develop a strategy. Currently, large enterprises such as NVIDIA and Unity are investing heavily to lay the foundational infrastructure, while Roblox, Decentraland, and Sandbox are jockeying to be the preferred portal, and Web3 studios such as Touchcast and TerraZero are working with leading brands to expand their market share. Now is the time to discover the metaverse and its power to drive deeper connections, more effective collaboration, and enhanced personal productivity and fulfillment.

While artificial intelligence continues to dominate headlines and the metaverse has seemingly

been sidelined by Mark Zuckerberg's decision to shift focus from the metaverse to AI, it's important to note that the metaverse is still as relevant as ever.

Among early adopters, there's still much hype around the metaverse, and what is or is not to come. The truth is that no one knows exactly the overarching potential of the metaverse and its impact on our lives. It all depends on the power of computing and networking abilities, and the adoption rates of users, which will look different than the adoption rates of the internet of the past.

What we do know is that the race is on as large enterprises such as NVIDIA and Unity are investing heavily to lay the foundational infrastructure, while Roblox, Decentraland, and Sandbox are jockeying to be the preferred portal, and Web3 studios such as Touchcast and TerraZero are working with leading brands to expand their market share.

What we also know is that not everyone will be rolling out of bed to strap on a VR headset and head to the virtual office where they take their cadence from their hologram boss.

We will still have plenty of real-life interactions, however, leveraging a "digital-twin" or a virtually rendered avatar of oneself and working within a digital office will lead to greater opportunities for work productivity, connection, and growth.

Digital Twins

The metaverse is here. Look at how many companies are adopting "digital twins," or a virtual representation of a physical object, person, or place that is created using real-time data and advanced simulation models to provide a comprehensive, digital view of a real-world process.

At the moment, digital twins are most apparent at work, enabling a new world of possibilities across industries ranging from automotive to architecture, manufacturing, retail, telecommunications and beyond.

Powering these connected virtual worlds is NVIDIA's Omniverse Enterprise, which provides a common environment for collaboration and creation in the digital world. NVIDIA's graphics processing units (GPUs), that are already widely used in the gaming and entertainment industries, are essential for rendering high-quality graphics and visual effects in the metaverse. The company's GPUs also play a key role for accelerated computing, which is essential in the development of artificial intelligence (AI) and machine learning algorithms, which are used to construct realistic virtual environments.

This enables a new world of possibilities for architecture, product design, and industrial automation for NVIDIA's customers. For example, Omniverse is being used by BMW to develop digital twins that allow their factory teams to streamline and optimize the planning and operations of their factories of the future. Using the NVIDIA Omniverse, thousands of planners, product engineers, facility managers and lean experts are able to collaborate in a

single virtual environment to design, plan, engineer, simulate and optimize extremely complex manufacturing systems.

Digital twins allow BMW's team to make more informed and accelerated decisions for machine layout, train virtual robots, and test facility designs before they commit to them in the physical world. By being able to test and optimize virtually, BMW claims that they have seen a 30 percent boost in production planning efficiency.

Another example is Ericsson, the Swedish networking and telecommunications company, which utilized the Omniverse platform to build city-scale digital twin and simulation environments to best understand optimal antenna propagation for 5G deployment, and then apply those learnings to the entire city. By creating virtual models of physical assets, processes, and systems, digital twins provided Ericsson real-time insights into performance and helped identify areas for improvement.

Lowes, one of the largest home retail stores with over 3,000 facilities in the United States, has begun to use Omniverse for their implementation of digital twins to give their employees superpowers for supporting their customers. The retail associate uses an augmented reality headset connected to Omniverse to both see the digital world mixed in the physical one, giving them immediate access to inventory and product information in real-time. The digital twin improved customer experience providing real-time data on customer needs and preferences, helping Loews better understand and meet their customers' requirements.

Powerful tools like NVIDIA's Omniverse are already bringing together a large and diverse community of creators, developers, and users to make it possible for forward-thinking, digital-first companies to collaborate and create in ways that lead to new possibilities for the way we live and work.

Despite all the hype of digital avatars and virtual headsets, understand that the adoption of the metaverse will not be an all at once moment, but rather a gradual collection of digital experiences that improve the way we live and work.

Adopting the Metaverse

Metaverse adoption will look different than the past adoption rates of Web 1.0 and 2.0, where consumers played a significant role. Enterprise and industry may play a key role for the rest of us to understand the value of an internet in 3D in addition to the younger generation and gamers who have been playing in a 3D world.

Additionally, how quickly metaverse adoption will happen is contingent on usage of younger people and how much support and enthusiasm governments provide. Early data shows much higher metaverse adoption rates in Asia, MENA, and Europe than the United States. This means that people in these regions have better access to the devices needed to use the metaverse, which makes it a favorable environment for the development and adoption of metaverse-related applications.

Just this month, the South Korean government doubled down on a metaverse commitment and launched a \$48.3M USD fund towards development and supports mergers and acquisitions of various startups to help catapult the metaverse ecosystem. They believe the metaverse is a key driver of economic growth and innovation with the potential to transform our lives.

Similarly, The Government of Dubai launched their Dubai Metaverse Strategy which is aimed to become one of the world's top 10 metaverse economies by 2030 as well as a global hub for the metaverse community, aggressively attracting startups to build the next iteration of the internet.

El Salvador is also committing to metaverse growth with their president, Nayib Bukele, introducing a bill that would eliminate taxes on technology innovations. He said that the bill was necessary to encourage innovation and investment in the technology sector, and that the initiative would help to create jobs and boost El Salvador's economy.

Follow the Opportunity

Companies and governments have a window of opportunity to build and experiment in these virtual worlds that will unlock new possibilities previously thought unimaginable. Soon enough, most of us will find ourselves operating within virtual worlds, designing digital twins, and providing services in expansive Web3 environments.

Although still in its nascent phase, the metaverse will help us to connect with people from all over the world in a more meaningful way. The metaverse can help us to be more productive and fulfilled in our personal lives. Now is the time to discover the metaverse and its power to drive deeper connections, more effective collaboration, and enhanced personal productivity and fulfillment.

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