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"In it together." This phrase from the early days of the <u>pandemic</u>—when lockdowns and restrictions accelerated the individuals' and brands' adoption of the <u>metaverse</u>—really defines the core of the immersive experiences technology enables by technology. (Also read: <u>Immersive Graphical Displays of Information: How Mixed Reality Technology is</u>

Changing the Game.)

Exploring the metaverse is not just about entering into—or even building—your own world; it's about sharing that experience with others in real time. Those who enter another realm in the form of an <u>avatar</u> are not merely playing in a computer program; they are interacting with others in the same virtual space.

That capability enables real-time <u>games</u> involving many players scattered around the globe. But beyond that, it opens the possibility of vast of human interactions which make the metaverse function as a meeting place and as a marketplace without boundaries.

The possibilities, truly, are endless.

However, at present, the metaverse is not a single entity—or even defined by a standard type of virtual experience. Rather, it encompasses a collection of brave new worlds on different platforms that each operate in their own way rather than merging seamlessly together.

The Origins of the Metaverse

The term "metaverse" was first coined in Neal Stephenson's 1992 science fiction novel "Snow Crash." In a 2017 interview with "Vanity Fair," the author clarified the vision he had of this concept was much more in line with our experiences of virtual reality (VR) than augmented reality (AR). (Also read: What's the difference between augmented reality and virtual reality?)

Likely, Stephenson's own creation was inspired by the shared experience of fabricated realities made possible by the holodeck on "Star Trek: Next Generation." That bit of technology made the immersive fantasies, that the denizens of the planet Talos IV were able impose on humans in "The Menagerie" episode of the original series, a regular occurrence.

"If you're in a VR simulation, every photo that's hitting your eye, everything you see, is a virtual object that's rendered from scratch by a computer graphics system," Stephenson said in the interview.

In contrast, when experiencing "an AR application, you are where you are." That means that you remain "in your physical environment; you're seeing everything around you normally," only with additional digital effects layered on to it.

The Metaverse Is Not Virtual Reality

Despite Stephenson's insistence on VR as the definitive metaverse experience, a large number of the products and services that currently fall into the metaverse bucket and contribute to the industry's growth do not depend on the complete immersion attained by wearing headsets. It's not practical at this stage because the technology still has to mature more before it can become mainstream. (Also read: The Metaverse: Possibilities and Perils.)

Problems with <u>headsets</u> include a short battery life and the headaches and nausea they can induce in those who wear them. That's why some of the metaverse meeting rooms—and gaming platforms—designed for avatars allow options for participation without headsets.

The Rise of the Metaverse

Like the physical universe, the virtual metaverse is expanding; and it is doing so at an accelerated rate when measured in terms of revenue generated. It already hit \$478.7 billion in 2020 and is poised to top \$783 billion in 2024, according to <u>Bloomberg Intelligence</u>.

A good portion of that is gaming platforms. Gaming platforms like Minecraft, Fortnite and Roblox have been popular for years—especially among teens and young adults.

However, the global video game market really took off in 2020 when it topped \$155 billion, according to <u>Statista</u>. It notes that the number of players grew from 944 million in 2019 to more than 1.2 billion in 2020, and existing players increased the amount of time spent on games by 39%. (**Also read:** <u>How AI Is Personalizing Entertainment.</u>)

Playing Through the Pandemic

Since 2020, games immersing you in their environments have given those stuck at home a way to virtually get away.

No doubt that contributed to Nintendo's fantastic success in releasing its island simulation game, "Animal Crossing: New Horizons," in March 2020. By the end of that year, it had sold <u>31.18 million units</u>.

In addition to enjoying a virtual escape from their homes, players appreciate the possibility of connecting with other players who interact with them in real time.

"Multiplayer games proved especially popular during COVID-19," Statista observed.

People found a sense of human connection that they particularly craved when they didn't get to meet people in person and Statista points to that as a major factor in Roblox's tremendous growth. At the end of 2019, it had 19.1 million daily active users (DAU). That more than doubled during the pandemic years, and by the third quarter of 2021 the platform had grown to 47.3 million DAU.

Roblox was founded in 2004—which is just one year after Linden Labs launched "Second Life." If you're old enough to remember it at all, you may be wondering what happened to it. (Also read: Finite State Machine: How It Has Affected Your Gaming For Over 40 Years.)

Metaverse Interest Gives "Second Life" a Second Life

In 1999, Philip Rosedale founded Linden Labs, the company behind the online platform "Second Life." And, in it, features Mark Zuckerberg boasted about over two decades later while presenting his vision for the future which inspired him to rebrand his company as "Meta" in 2021 like digital avatars, virtual real estate and interacting with others who shared interests, obsessions or fetishes in a fabricated environment, were all in place.

But both technology and society were in a very different place in the earlier part of this century, which meant Second Life never really took off to attract members by the millions like today's most popular gaming platforms do. Rosedale left the company in 2010, but in 2022, he returned to it in the capacity of a strategic advisor.

Advances in technology and connectivity certainly play a major role in the platform's capability and increasing popularity. We can also thank the rise of <u>cryptocurrency</u> for encouraging people to accept in-game currencies bought with actual money, which created new revenue streams for the games. (Also read: <u>Cryptocurrency</u>: <u>Our World's Future Economy?</u>)

Those factors, combined with the huge increase in players and gaming time since the pandemic struck, made more brands take note of their possibilities for reaching customers and helped make the metaverse the place to be in the 2020s. With all the interest focused on <u>virtual worlds</u> in which <u>transactions take place that can generate actual revenue</u>, Rosedale believes the original version offers a lot of growth potential now.

He intends to keep it playable without a VR headset—an option most gaming platforms offer. "The headset is so broken that it's going to actually take, I think, five years to get to something that's good," he explained to <u>CNET</u>, and he doesn't want to wait around for the <u>hardware</u> to get to that point.

Like other metaverse experiences that offer in-game opportunities for monetization, Second Life uses its own form of currency that holds real-world value. Though the term "NFT" only emerged in 2015—when the Etheria NFT project launched—Rosedale declared the virtual goods bought and sold on Second Life count as NFTs, telling CNET:

"There are 375 million things a year sold in Second Life at about two bucks apiece. So it's about \$650 million a year in transactions. Those are all NFTs—basically, the core idea of allowing <u>digital assets</u> to be marked and allowing them to be tradable and shareable." (Also read: <u>NFT Explained: How to Make, Buy and Sell Non-Fungible Tokens.</u>)

Metaverse as Marketplace

Metaverse's interactive capability extends to transactions in which the virtual realm's currency that can be purchased with real money is used to buy virtual property, goods and <u>NFT avatars</u>. Those millions of dollars in transactions for virtual goods are what makes people think that there is serious money to be made in these games.

Currently, on the most established metaverse platforms, the largest purchases are virtual real estate. MetaMetric Solutions said such sales hit \$501 million in 2021 and exceeded \$85 million in January of 2021 alone.

Among those buying virtual real estate is the venerable brand Sotheby's. In 2021, it launched a <u>virtual art gallery</u> that looks exactly like the real one in London. The virtual one is devoted to high-end NFTs. (Also read: <u>Art Museums and Blockchain: What's the Connection?</u>)

Sotheby's opted to locate its <u>virtual art gallery</u> in a section of the metaverse called "<u>Decentrarland</u>," which is described as "the first-ever virtual world owned by its users." However, most brands are setting up something on gaming platforms like Roblox, which already draw in hundreds of millions of players and <u>9.5 million developers</u>.

Roblox has created a level playing field where anyone can come in, learn the tools and build, build, build," explained Yonatan Raz-Fridman, CEO of the Roblox-based digital production studio Supersocial, in an interview with <u>Digiday</u>.

That combination—of being where a huge number of the Gen Z market can be found mixed with the possibility of brands getting developers to build—is exactly what's attracting a range of businesses to set up virtual experiences and marketplaces on the gaming platform.

Moreover, the possibility to create branded digital apparel for avatars, which can be added to the digital goods and lands offered for sale in the metaverse, has attracted several major <u>fashion brands</u>. Both NIKELAND and Vans World were built for Roblox; and they are a natural fit for the gamer demographic.

But Roblox has also attracted luxury brands seeking to establish relationships with young consumers who can't yet afford to buy their products in real life. At the 2022 National Retail Federation conference, <u>Patrice Louvet</u>, Ralph Lauren's CEO,

observed that he considers the metaverse "a fantastic opportunity to interact with younger consumers, to create experiences."

Louvet explained, "You can get into Roblox and get your avatar to have a virtual coffee at a virtual RL coffee shop, create a virtual outfit on Zepeto or visit the Madison store virtually." He said the virtual apparel sales on the Zepeto site topped 100,000 units—sold in the platform's digital for amounts ranging from about \$0.57 to \$2.86 each.

Other industries have also tapped into the marketing power of offering immersive experiences on Roblox. For example, Hyundai used it to offer people the chance to have their avatars test-drive Hyundai cars and operate robotic vehicles in the <u>Hyundai Mobility Adventure</u>. As with all metaverse experiences, there is also a social component to the adventure. (Also read: <u>Hacking Autonomous Vehicles: Is This Why We Don't Have Self-Driving Cars Yet?</u>)

Metaverse as Stage

When an event happens in the metaverse, it is possible to render the entire virtual world into a stage for the performance.

That has been the case for live concerts, which the pandemic forced to either cancel altogether or find an alternative "ingame" venue.

The platform of choice for such large scale live events was Fortnite. Millions could attend these concerts, which points to one advantage virtual live events have over physical one: no real space limitations.

Another is far more elaborate effects and expansive staging, as detailed in the description of the Fortnite Travis Scott concert in <u>The Verge</u>. While live concerts also involve many special effects, they still, as the article points out, "don't let you float through the air while a Godzilla-sized rapper walks across an ocean."

Metaverse for Industry

While games and entertainment are what bring the metaverse to the public's attention, some see its truly transformative potential when applied to industry.

Tolga Kurtoglu, who holds a doctorate in mechanical engineering and is the <u>CTO</u> at HP Inc., was quoted in "<u>The Wall Street</u> <u>Journal</u>" saying he anticipated that "next-generation collaboration tools" enabled by metaverse technologies will "significantly accelerate product-development cycles."

He offered the example of running tests on virtual vehicles instead of driving real cars into walls with crash dummies. He then went on to discuss actual uses and possible future across different aspects of the <u>supply chain</u>:

"Virtual-reality and augmented-reality technology—already used for military, law-enforcement and healthcare job training—will become more sophisticated, tech visionaries say. New hires at manufacturing plants will learn how to operate complex machinery; at warehouses they'll get trained on how to pack boxes; and at retail stores they'll get to know every product and where each belongs—all in virtual replicas of those places." (Also read: How Virtual Reality Is Changing Healthcare.)

The Fragmented State of the Metaverse

Even with all the hype about the metaverse, what's actually happening now is not access to a single metaverse but various metaversal experiences accessible on digital platforms.

Each one of these exists as a world unto itself and doesn't connect to any other.

Consequently, the avatar you set up in one virtual world cannot cross over to another and bring with it the virtual accessories it acquired in the initial world.

The video "Trapped in the Metaverse: Here's What 24 Hours Feels Like" depicts the friction that presents in navigating the metaverse. In it, when "The Wall Street Journal"'s Joanna Stern donned the headset and hand controls to embrace the VR experience for a day, she found hopping around different worlds was not altogether seamless. For example, when it came time to end her workout on the Altspace platform to participate in a scheduled meeting in Spatial, Stern had to first switch to a different avatar to comply with the new environment's requirements.

That was just one of the aspects she identified as pointing to the metaverse being not quite ready for prime time yet. (Also read: <u>5 Common Myths About Virtual Reality, Busted!</u>)

The Metaverse Falls Short

You may have noticed many avatar options don't show a full body. In "<u>Trapped in the Metaverse: Here's What 24 Hours Feels</u>
<u>Like</u>," Stern even mentioned couple times in her interactions with others that they don't have legs in the metaverse.

If you're wondering why that's the case for VR-powered metaverse avatars, you're not alone.

<u>TheNextWeb</u> looked into that very question and explained it's the result of:

- The lack of sensors to capture movement.
- Attempts to avoid the nausea people experience when their feet are not where they expect them to be in virtual reality.

But the absence of legs is something companies are working to improve so full-body avatars can appear on the platform.

The Future of the Metaverse

As the metaverse is closely connected to the gaming industry and <u>blockchain development</u>, it is male-dominated—with few <u>women in leadership positions</u>. One of them, however, is Janine Yorio, CEO of <u>Everyrealm</u>.

In an emailed statement, she declared: "We are building the gateway to the metaverse, to do for the metaverse what Coinbase did for <u>crypto</u>, what Netflix did for streaming entertainment, and what Google did for the internet."

The company's aim, according to Yorio, is to create "the infrastructure" that will enable "a global, mainstream audience" to tap into a wide range of interactive content.

The appeal of the metaverse, though, remains best encapsulated by Miranda's exclamation of discovery in Shakespeare's "The Tempest":

"O wonder!

How many goodly creatures are there here!

How beauteous mankind is! O, brave new world

That has such people in 't!"

Non-Fungible Token		
<u>Gaming</u>		
Virtual Reality		

<u>Meta</u>

Related Terms

Blockchain Economy

<u>Augmented Reality</u>

Blockchain (Distributed Ledger)

<u>Cryptocurrency</u>