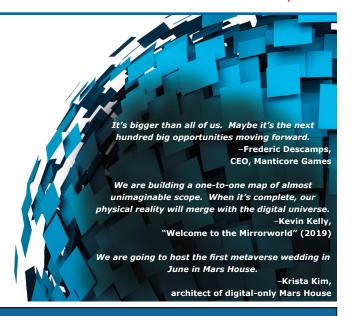


BRIEFING

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THE NEXT INTERNET: THE DIGITAL INDUSTRY FANCIES A METAVERSE



CONTEXT & DYNAMICS

The digital industry is heavily imbibing the latest liquor: the metaverse. Being called the Next Internet, this aspirational entity seeks the convergence of the virtual and real worlds and the utilization of all digital technologies to parallel real-world experiences with virtual experiences. Definitions and descriptions of such a metaverse vary widely and seem to be getting developed on the fly. But they do share a desire to combine gaming, social media, e-commerce, communications, employment, entertainment, data and as much of daily life as can be squeezed into one site. A metaverse seeks to circumvent proprietary "garden walls" and open the digital world for all entities and individuals. This Next Internet promises a stable virtual realm where users can do an amazing array of activities in the middle of today's confused and uncertain physical realm, where individuals are limited in their capabilities, and that could well be the reason for its current allure.

IMPLICATIONS

- Those creating software to facilitate any metaverse site will benefit.
- Retailers will need to assess sites' plans and figure out a way to thrive in such an environment.
- In the middle of the current asset bubble, virtual real estate will benefit.
- Currencies created in these environments will increase in value in the near term but eventually become volatile like existing cryptocurrencies.
- Any nonfungible token (NFT) made available in this environment will benefit in the near term.
- Fulfillment of the promises made for a metaverse will take years to realize, but those companies developing infrastructure for a metaverse will benefit.
- Some of the heightened enthusiasm behind the metaverse will lessen as the pandemic and its lockdowns start to fade.
- Gaming developers who turn to the metaverse for opportunities will benefit but face widespread competition.
- Governments will need to decide whether or not to regulate this alternative realm.
- A fully realized metaverse would be the "killer app" for virtual reality technologies.





Multiverse and Metaverse...What?

The digital industry wants your attention: It has something new, something amazing and something that will change your life! It is offering something that sounds scientific but seems more like a fantasy. It gives

off a feeling of something significant and expansive, durable and life-changing, yet at its core, it sounds more like adults playing house. This "new," "trending" and "hot" offering is a "metaverse," a term created in a 1992 science fiction novel, Snow Crash, written by Neal Stephenson and depicting a world that effectively integrated virtual and physical realms.

The word metaverse seems to have been chosen to resonate with a scientific term, "multiverse," a physics theory that posits the existence of many universes that comprise the entirety of space, time,

matter, energy, information, physical laws and the constants that describe them. Multiverse, coined by William James in 1895, was first applied in science in 1957 by physicist Hugh Everett, who explained, "We are living in a multiverse of countless universes, full of copies of each of us." (New Scientist, 9/24/14)

The scientific-sounding word metaverse is an aspirational term used to capture an all-encompassing technological scheme to combine gaming, social media, e-commerce, communications, employment, entertainment, data and all of daily life into one entity, an entirely virtual world. While an agreed-upon definition of metaverse has yet to surface, language used to describe the term suggests an interrelated, interactive and digital experience circumscribed by available technologies. (NBC, 4/3/21)

We will happily leave the scientific details of the multiverse to scientists and concentrate, instead, on the aspects embedded in the term. Metaverse is a portmanteau that combines the prefix "meta," from the Greek meaning beyond and typically used to mean transcending, with the word "universe." It has come to represent a hypothetical future Internet that has many interpretations, one of them was offered by Tilak Mandadi, the chief technology officer at Disney Parks, a metaverse "is a shared magical world created by the convergence of virtually enhanced physical reality and physically persistent virtual space." (Pymnts, 3/27/21)

At the beginning of the pandemic when all-thingsdigital sounded so progressive and valuable, Forbes entitled an article on the topic "The Metaverse Is Coming and It's a Very Big Deal." That loud cry for relevance

> seems to have been drowned out by the din of stories about the rapidly spreading COVID-19. One year after the Forbes article, however, talk about a metaverse has started up again. (*Forbes*, 7/5/21)

> What is it about the "very big deal" that has captured the digital industry's imagination? Moreover, is metaverse really a "very big deal" for consumers? Let's take a deeper look.

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"multiverse."



"It advanced the technology, but it's not a game changer."

What Is a Metaverse?

While some envision a utopian realm in which an immersive experience is mediated through and with technology, others see only a dystopian nightmare in which people and software exist on equal footing with unknown effects. However one sees the concept, some interesting realities have emerged from all the talk of metaverses.

- ◆ Epic Games announced in April that it had raised \$1 billion to fund its metaverse, with Sony investing \$200 million of that money.
- ◆ During 2020, Roblox, a game site that has evolved into a platform with aspects of a metaverse, expanded its daily user base 85 percent, reaching 32.6 million. Three of every four children aged 9 to 12 are on Roblox.
- ◆ Mana is the *de facto* currency or more specifically, the digital asset token of a metaverse *Decentraland*, and it has increased in value over the past 12 months 4,255 percent.
- ◆ Metaverse *Cryptovoxels* has seen its price per parcel of online land increase from \$821 last year to \$3,895 this year.
- ◆ SuperWorld, an augmented reality (AR) virtual world has sold "thousands of properties" (i.e., virtual lots set aside on the site's endless layout) at \$2,000 each.
- ◆ Mars House, the first digital house designed for a metaverse, sold for 288 Ether (*i.e.*, the cryptocurrency of Ethereum), or more than \$512,000.

(MSN, 4/21/21; Techstory, 4/21/21; Motley Fool, 3/16/21; New York Times, 5/25/21; Time, 5/10/21; Economist, 3/13/21; Paste, 4/13/21)

In light of these kinds of economic developments, Republic, a crowdfunding platform, has formed a fund called Realm to purchase parcels of online land at several metaverse sites. The return on their investments, the fund's managers insist, will come from developing virtual stores, hotels and other businesses to earn revenue from their operation and eventually selling the developed online properties. Republic is asking 99 invited investors to invest \$25,000 each and will purchase online properties with those funds. "Real-world real estate is very uncertain now," offered Janine Yorio, head of Republic Real Estate. "This feels insulated from a lot of those real-world risks." As such, the virtual world is displacing the uncertainty of the physical world. (Motley Fool, 4/16/21)

Just what a metaverse is and what it includes are being pieced together on the fly – that is, a definition is being developed as the concept is being built. As heir

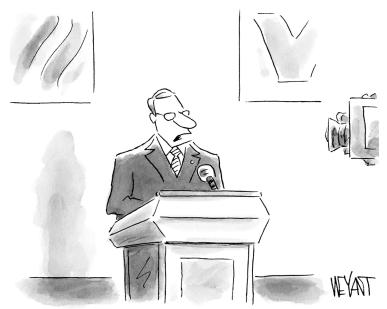
apparent to past virtual realms, such as Farmville, SimCity and Second Life, this new virtual world exploits more advanced technologies to enhance its look and feel. The goal, according to Disney's unit looking into developing a multiverse, is to bring physical and digital environments together into converged experiences using technologies like computer vision, natural language, augmented

reality, artificial intelligence and tools from the Internet of Things. According to Forbes, metaverse describes a concept of a future iteration of the Internet, comprising "persistent, shared, 3D virtual spaces linked into a perceived virtual universe." Fortune added this perspective: "Eventually, people will be able to enter the metaverse completely virtually...or interact with parts of it in their physical space with the help of augmented and mixed reality." A tech writer offered this assessment: "The metaverse - as conceived by enthusiasts -

will be a fully immersive, game-like virtual world where consumers can go to work, learn, create art, shop, attend events, hang out with friends and live their real lives in a wholly artificial construct." Another tech perspective said, a "metaverse is the continuation of social networking in virtual environments." Or consider this from the Washington Post: "The metaverse [is] where the online world echoes and fulfills real-world needs and activities." A recent online post asked a simple question: "At what point does the metaverse game...come to be continuous with the game of life?" (Pymnts, 3/27/21; Forbes, 7/5/20; MSN, 4/21/21; Social Media Marketing, 6/8/21; Pymnts, 3/27/21; Washington Post, 4/17/20)

The easiest inference to draw from so many different and often contradictory explanations of this new phenomenon is simply that no one really knows what it is or what it will be. Everyone has a vision, but few have a clear understanding of what, in fact, it will be. Even the name, metaverse, is curious, suggesting "beyond" the "universe"; beyond where, and what universe? One critic even suggested that the concept needs a new name. For that reason, the concept has had several additional monikers, including "mirror world," "the AR Cloud," "the Magicverse," "the Spatial Internet" and "Live Maps." (Forbes, 7/5/20)

Historically, gaming companies and creators have provided much of the motivation and inspiration for the emerging concept, and a look at how the concept evolved from the gaming world might add some context to the confusing term.



"I regret that my poor choice of words caused some people to understand what I was saying."

Metaverse's Origin Story

The idea of a metaverse started in science fiction. Such a fictional version of a virtual world was displayed in the novel Snow Crash, the author of which, Neal Stephenson, formulated a metaverse that was the sum of all virtual worlds, augmented reality and the Internet. A different alternative realm was portrayed in Ernest Cline's Ready Player One (book, 2011; film, 2018); the narrative featured OASIS, referred to as a massively multiplayer online simulation game, comprising a universe split into 27 sectors, each with its own environmental details and each containing (or not) games, shopping, movies and

real estate. Many fictional versions, such as *The Matrix* (1999), depict this alternative realm as dehumanizing and dismal – that is, a dystopia.

For the most part, a metaverse has remained a fiction, because, as authorities in the field suggest, it will take years, if not decades, to fully realize the concept. Yet

Online gaming evolved and started creating what might be called "environmental realms" rather than just games, virtual spaces in which more consumer interests and needs could be served.

the digital industry has started making rumblings around the advance of a metaverse, and such movement toward actuality started in the gaming industry. As technology got more advanced and the ability to create more visually appealing designs developed, games evolved. World of Warcraft (2004) gave users the ability to create avatars that could speak with fellow avatars, hang out in groups and go plunder a dungeon for loot, which could be spent on things. What started as games on consoles became widespread gaming online, which soon became online interactivity outside the game, and that led to a social media component on the gaming sites, as well as the potential for e-commerce inside the games. Massively Multiplayer Online Role-Playing Games (MMORPG), such as The Matrix Online (2005), enabled users to create a character and control the character's action in a virtual world to overcome adversities. Users started buying ingame items and that led to shopping opportunities outside the games. Users started spending more time and more money on sites that, at one time, involved only a simple (or complex) game. For instance, per device spending on mobile games increased 43 percent over the past year, after annual increases of 22 percent in 2018 and 2019. (*TechCrunch*, 4/1/21)

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rather than just games, virtual spaces in which more consumer interests and needs could be served.

- ◆ Nintendo's Animal Crossing (2020), a video game that offers "an escape to your personal island paradise" and that encourages players to build homes and pay off the debt or just wander around the site and enjoy the scenery, has more recently hosted weddings and graduation ceremonies on its site.
- ◆ Reporters Without Borders chose the video game *Minecraft* (2009) as the venue to

lodge millions of publicly censored documents, which it placed in a 12-million-block library built in the game over three months.

◆ Vivian Schwartz, an artist and illustrator, has started holding editorial meetings in *Red Dead Redemption* (2010), an open-world video game in which players

fight a live-or-die battle to redeem for past errors. The game has become a competitor with Zoom, as attendees, according to Schwartz, "sit around the campfire, with wolves howling out in the night."

◆ Epic Games owns the extremely popular online game Fortnite (2017), which is a free-to-play cross-platform game with different levels of play; Epic has recently entered into a deal with DC Comics to produce a miniseries of Batman living in the Fortnite world.

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permitting users to create their own content, including producing or sampling music for videos, creating their own games and other content, decided to drop the word "games" altogether. Roblox startined supplying "experiences." providing In fact, Roblox is 20 million experiences. With games becoming experiences, it followed that "gaming platforms" would become "metaverses." (Economist, 3/13/21; Verge, 5/14/21)

◆ Fortnite hosted a virtual concert by DJ

Marshmello, and it attracted more than 10 million viewers.

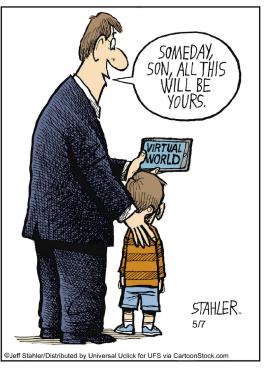
(Washington Post, 4/17/21 and 4/20/21; Pymnts, 3/27/21; Paste, 4/13/21)

These kinds of extensions of video-game-sites' offerings provided momentum to producers to take advantage of their massive audiences and to try to keep them on their sites even longer, and so they started expanding available services. Games had over the past several years become more and more immersive with greater detailed imagery, and the appeal of the virtual worlds depicted in games made the pathway to a metaverse rather simple. With

large and growing numbers of users, game developers added the ability for players to interact and meet in chat sites and to enter social networking locations; they then added virtual entertainment to their environment and even designed venues for weddings and other important social events.

Epic Games' Fortnite has evolved from an online game into a "town square" of many avatar activities, including concerts, movie presentations, user-created content and even competitive parkour cultures. An avatar can enter a game-like lobby and go through any of thousands of doors, each with its own experience awaiting, and can do so with up to 99 other avatars.

These kinds of environments are no longer simply game sites, and so *Roblox*, which had evolved into an entertainment and social-media site and which was



Decentraland, as Model

As the gaming industry touts its "experiences" rather than mere games and shifts its orientation from being simply gaming platforms to becoming new and improved businesses that create metaverses, other companies are launching their versions of the new concept from scratch. Such an entity is a site created by a nonprofit, the Decentraland Foundation.

"The underlying philosophy of *Decentraland,*" according to Sam Hamilton, head of the community, "is for people to take back control of the Internet and decide in which directions it goes." The Foundation wants to open up activities, collaborate with all-digital

facilities and circumvent the walled-garden approach typical of large digital corporations, such as Facebook and Google. Members can build their own tools, games, content and markets, among other things. Membership in *Decentraland* went from 1,500 daily users at the beginning of this year to 10,000 in March. (*NBC*, 4/3/21)

Almost everything in this new realm is a nonfungible token (NFT), a digital certificate of authenticity that uses blockchain technology and makes it possible to know who owns what. The decentralization of legal ownership through the blockchain is the motivation behind the site's name. NFTs include artworks in the virtual galleries, goods in stores and even the land that is marked off into plots to be bought with the currency, MANA, which as was cited earlier, increased in value in the past year by more than 4,500 percent. (*NBC*, 4/3/21)

The Foundation is building a city, Genesis, inside *Decentraland*, where users' avatars can shop in a wide variety of shops, eat at a restaurant, watch movies in a cinema, attend a concert at a venue, take a walk around the neighborhood and even gamble at an Atari casino. Most things that one can do in the physical world will have a virtual parallel in Genesis. This has triggered a "land rush" for virtual properties in and around the

designated city, with the price of land in Genesis tripling in the past year. One plot of land in and around Genesis recently sold for \$572,000. (*Techstory*, 4/21/21; *Motley Fool*, 3/16/21)

Decentraland is not unusual. Sites such as Facebook's Horizon, Upland, Roblox and others are putting together their own versions of a metaverse. While each has its own unique characteristics, they do share one thing: They seek to create a digital world in which users' avatars can do

online at least as much as users can do in the real world... if not more.

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(1996), decided to turn his attention to something new. As recounted in *Masters of Doom: How Two Guys Created an Empire and Transformed Pop Culture* (2003), Carmack announced to his stunned staff his proposal: "We should focus on doing a generalized infrastructure and doing a game as one element of this generalized infrastructure, which can have a lot of the 3D web environment that people always are thinking about and wishing about. We

can do it now." All the science fiction and all the talking about an online world in which one could "live" was now possible, he insisted, because new technology enabled it, a world which he called the "coolest fucking thing planet Earth had ever seen."

Carmack was talking about a metaverse, a virtual world in which all of life would be simulated and integrated seamlessly with the physical world. Now, roughly two decades later, his vision is surfacing in various versions. Tim Sweeney, chief executive

of Epic Games, has the game *Fortnite* moving toward a metaverse, much the way Carmack had thought possible. It has its own money (V-bucks), holds virtual concerts, digital dances ("emotes") and even has its own digital cosmetics. The nominal gaming site, Sweeny asserts, echoing Carmack, "is a phenomenon that transcends gaming. Our aim of *Fortnite* is to build something like a metaverse from science fiction."

Digital technology has always promised a better world. Computers would create the information age, which, as its name suggested, would be a better-run world than previously existed. Smartphones would advance the communications age, which again, as the devices' name suggests, would lead to better times. Today, artificial intelligence, virtual reality, 3D, 5G and all the other technological advances speak of a better, more efficient, more effective world than known prior. And now, the enterprises behind the emergence of a metaverse are using those technologies not just to make the physical world better but to actually create what they hope is a better "world," which happens to be a virtual, digital and online realm – a separate oasis.

Many successful people in the digital industry have been wanting to create their own worlds. A few years back, several of them even suggested the possibility of floating an island off the coast of California where they could create their own society with its own currency and



"Are you sure you're not just trying to get back at Josh by sleeping with his avatar?"

A World...Online

In the first years of this century, John Carmack, one of the early geniuses of gaming and one of the creators of successful games *DOOM* (1993) and *Quake*

with its own apolitical social order. Their utopian vision has led to the creation of cryptocurrencies and now an online society, a metaverse being called the Next Internet.

The dream of starting a world *de novo* has been around since the sixteenth century, when Sir Thomas More wrote *Utopia* (1516). Utopian communities have formed and collapsed ever since. A metaverse is the digital version of a utopia. Utopian visions notwithstanding, a metaverse as being developed today seems like a digital expansion of the board game Monopoly, with in-game

money (cryptocurrencies) being used to bid up the prices of pieces of property, with both currencies and property tilting favorably toward those who have started them. This vision has its followers, and they seem to be growing in numbers.

A metaverse, however it evolves and whatever form it takes, will be the latest iteration of the digital-technology industry's ongoing and relentless promise to make a better world, something approaching human salvation or, more simply, **happiness**. It will combine software to create an integrated realm of online marketplaces, new kinds

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of dwelling spaces, different ways to meet with friends, unique entertainment venues, unusual forms of currency, more kinds of transactions, surprising ways to act, additional ways to have experiences and, it is hoped, a **virtual refuge and source of stability** in the midst of today's physical world of confusion and uncertainty.

Individuals, forced to deal with mounting losses caused by a devastating coronavirus, leadership failures in many arenas, personal stresses of an uncertain economy and a physical environment that is warming way too fast to sustain human life in the long run, likely find quite restful a virtual world that provides a **sanctuary** with the opposites of those

things. Users have **control** over their avatar, and their actions can trigger increases in currency values (in reality) and property prices (online). Advocates claim that what users **can do** in a metaverse is limited only by what their imaginations can render, suggesting a **dream state**. No wonder so many young people are finding this mirror world, this spatial Internet, this Magicverse, this metaverse rather appealing right now.

The Internet greatly altered the way humans go about living their lives. Perhaps in the not-too-distant future, humans will learn if the Next Internet can do the same.



Some of our previous looks at this topic:

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