PitchBook



Vertical Snapshot: The Metaverse



REPORT PREVIEW

The full report is available through the PitchBook Platform.

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Contents

| Executive summary | 3 |
|--------------------------|----|
| Metaverse by the numbers | 4 |
| Defining the Metaverse | 5 |
| Principles | 5 |
| Framework | 15 |
| Timeline | 16 |
| Industry growth drivers | 18 |
| VC activity | 23 |
| Market map | 25 |
| Metaverse landscape | 26 |
| Metaverse taxonomy | 27 |
| Key players | 30 |
| Key acquisitions | 35 |
| Glossary | 36 |

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Analysis



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Executive summary

What is the Metaverse?

This ostensibly simple question has sparked fierce debate, the terms of which neatly illustrate the chasm between technology evangelists and cynics. It's also the question that underlies this report, for the Metaverse must be defined, contained, and contextualized before its merits and flaws can be properly understood. Though this snapshot offers a perspective on the development of the Metaverse, it does not claim to be the end of the story. Because the Metaverse is an evolving technical and cultural concept, it is guaranteed to change.

In outlining the core components of the Metaverse and highlighting the conceptual underpinnings, this report aims to demonstrate how both advocates and skeptics conceive of a more immersive digital future, how the Metaverse may differ from the contemporary internet, and how aspiring entrepreneurs and venture capitalists hope to capitalize on its emergence.

First, a definition:

The Metaverse is the internet, iteratively evolved to incorporate Web3 principles regarding the devolution of user data, novel technologies aimed to improve usability and immersion such as augmented reality/virtual reality (AR/VR) headsets, and greater interoperability built atop more open standards and blockchain technology.

Because said evolutions have yet to pass, the Metaverse doesn't fully exist today. This explains exactly why the term is the subject of such intense excitement and derision; advocates and detractors don't yet agree on its key components, how it should differ from the modern internet, or even whether it should come to pass at all.

We view the Metaverse as inevitable. The evolution of computers and networking has consistently focused on creating efficacious digital representations of physical reality. Email, one of the internet's early success stories, simply computerized a centuries-old capability, significantly enhancing its value proposition in the process. Today, the Metaverse aims to take this premise to new heights, leveraging a bevy of new technologies, including Internet of Things (IoT), blockchain, and VR, to more thoroughly bridge the physical and digital worlds. Music, industrial asset monitoring, office collaboration, social media—these experiences and the data they generate will be increasingly connected and accessible in myriad environments. Supercharging information's ubiquity is one step toward improving productivity and generating more compelling digital capabilities.

Whatever the Metaverse amounts to, it will always be an extension of the real world, not a replacement. Far from dystopian source material such as "Snow Crash" by Neal Stephenson or "Ready Player One" by Ernest Cline, the actual Metaverse will be inextricably connected to and in conversation with real-world developments, not a place to become untethered from reality. While digital-centric content will certainly exist and indeed proliferate, key principles of the Metaverse such as interoperability and inclusivity suggest that digital silos will be hard to maintain and unlikely to be desired by consumers.

The nascent Metaverse opportunity comprises almost 3,400 companies that have raised \$47.0 billion in venture capital (VC) since 2018. The Metaverse umbrella is expansive, given how many potential segments of activity it purports to touch and the infrastructure and hardware it will take to achieve such ambitions. This report explores those dimensions across the pillars of access, infrastructure, and experience—dimensions that capture the challenges that entrepreneurs and business executives will have to face as they ponder the future of the internet.





9,661 deals

12,247 investors

\$115.5B

raised by VC-backed companies since 2010

Metaverse VC deal value (\$B) by segment for top 3 geographies*



Source: PitchBook | *As of June 30, 2022

Metaverse timeline

Background

Corporate activity

1992

The term "metaverse" first enters the lexicon

Science fiction author Neal Stephenson's book, "Snow Crash," introduces the term metaverse to the broader public. The book's dystopian setting and virtual reality premise still animate Metaverse connotations today.

June 29, 2007

2000

Apple releases original iPhone

Smartphones, perhaps best represented by Apple's dominant iPhone product, have encapsulated how ubiquitous hardware with consistent standards and strong user appeal can help to scale digital connectedness. It is no surprise other Big Tech firms including Apple are looking to AR/VR as the next great hardware phenomena.

May 24, 2016

The GDPR enters into force in Europe

The General Data Protection Regulation instituted a new standard of rights for individuals in the internet age, particularly in the area of privacy. GDPR's protections, however, risk limiting the data that enterprises and governments can use to improve services, thus limiting progress relative to international peers.

March 2020

June 23, 2003

Second Life releases

The "social simulator" demonstrated the potential of immersive, 3D worlds, allowing users to construct an alternate identity and interact with other avatars absent from real-world context. As a proto-Metaverse, it fell short of true interconnectivity and instead became stigmatized for escapism, as parodied by "The Office."

July 30, 2015

Ethereum blockchain launches

In an advancement over the prevailing bitcoin, Ethereum launches with additional funtionality such as smart contracts in order to scale the utility and appeal of blockchains. The technology still has limitations, but helped to spark the use of blockchains to more than just payments.

May 15, 2019

2010

Former President Trump issues executive order banning Huawei

The directive, though not specifically mentioning Huawei, bans the use of telecoms equipment from foreign firms deemed a national security risk. Increasing geopolitical rivalry between China and the United States all but guarantees that the Metaverse will be splintered between national boundaries.



October 28, 2021

Facebook rebrands to Meta

In a decisive nod to its Metaverse intentions. Facebook changes its name. The company's 2014 purchase of Oculus and its significant resource allocation to its Reality Labs division ensure it will be a major player in whatever Metaverse emerges.

METAVERSE TIMELINE

Background

Corporate activity

December 13, 2021

Nike acquires RTFKT

The acquisition is another bet from the fashion industry on phygital, a portmanteau of physical and digital. The notion suggests that consumers increasingly value their digital presence, and want to connect physical purchases to their digital identities. The broader application of this idea to industries beyond fashion could form a compelling value proposition for Metaverse adoption.

February 24, 2022 Ayar Labs raises \$130M in Series C funding

Ayar's proprietary optical I/O tech represents a crucial advancement in data center optimization. Photonic computing, supplemented with more sophisticated AI algorithms, will be vital in handling the massive amounts of data that underpin Metaverse capabilities.

May 24, 2022

Niantic launches Lightship

Lightship, a visual positioning system for augmented reality developers, enables location-based, shared experiences that form the foundation for a physical-digital proto-Metaverse.

2021

December 20, 2021

2022

Rec Room raises \$145M in Series F funding

Riding off the success of proto-Metaverse competitors such as Roblox and VRChat, Rec Room raises another round to enhance user creation. While Rec Room offers gameplay as a key feature, its ecosystem has served as a popular social ecosystem.

March 1, 2022

A new cryptocurrency winter begins

"Crypto winter" a time during which token prices plummet, occurred again in early 2022 alongside a broader public market decline. The resulting decline in value represents a shakeout for the industry, separating ill-conceived ventures from those with more ardent support and conceptual robustness.

July 25, 2022

Aptos Labs raises \$150M in Series A funding

Aptos, founded by former Meta developers, resucitates the Meta blockchain project Diem in new form. The project specifically addresses blockchain scalability for the Web3 ecosystem.

2023

Regulation VC funding

2023 and beyond

Apple and Meta aim to release new headsets

Meta's new headsets are confirmed. building off their Oculus Quest 2 with newer models and tiers that appeal to both casual and enthusiast consumers. Apple's headset is still only rumored, but credible reports indicate that the company is serious about entering the fray, with the idea that an eventual AR headset could one day supplant the iPhone as the company's chief revenue generator.

Metaverse VC ecosystem market map

Click to view the interactive market map on the PitchBook Platform.

Market map is a representative overview of venture-backed or growth-stage providers in each segment. Companies listed have received venture capital or other notable private investments.

| Immersive hardware | | Total raised: \$6.2B | Entertainment | Total raised: \$11.5B | Enterp |
|---|------------------------------|----------------------|----------------------------|--------------------------------------|--------|
| - Augmented reality glasses | └─• Virtual reality headsets | | - Art & collectibles | | - Col |
| | | | ⊕ sorare ∮ PARALLEL part | CLE ARTORY DIBBS | |
| Immersive reality accessories | Holographic displays | | Blockchain gaming | | lnd |
| | | | FORTE Dapper Labs | K MYTHICAL" SANDBOX | |
| Web3 | | Total raised: \$3.4B | Decentralized social media | | lnd |
| - Blockchains | - DAOs | | ⊗BitClout Artie | MINDS ⁽¹⁾ Hyperspace | |
| | | | Immersive gaming | | - Ind |
| → NFTs | Digital identity | | | SANDBOX [®] playful studios | |
| | | | Music & events | | |
| - Smart contracts | Decentralized finance | | | neor () royal beta hally | |
| | | | | | |
| Networking & compute | | | | | |
| Photonic computing | - Satellite internet | | Data center optimization | | loT |
| | | | | | |





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As the private markets continue to grow in complexity and competition, it's essential for investors to understand the industries, sectors and companies driving the asset class.

Our Emerging Tech Research provides detailed analysis of nascent tech sectors so you can better navigate the changing markets you operate in—and pursue new opportunities with confidence.

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