



METaverse

MARKET REPORT



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INTRODUCTION

The Metaverse may sound like a buzzword that has taken off only recently, but it describes the emergence of a set of technologies that have been in development for decades. While the concept of Metaverse is still new, many established companies are starting to take notice. Our Metaverse Insider Market Map segments the myriad companies and technologies involved in this emerging industry.

The purpose of the Metaverse Insider's Market Report is to explain how we got here, the potential of the market, and give our opinion on the segments that one can focus on. The evolution of the internet led to many Web 2.0 giants being formed. This included tech companies such as Facebook for social networking, Google for search engines, and Netflix for entertainment. At the Metaverse Insider, we believe we are at an inflection point. Many of these tech companies will either adapt to the change in the industry or struggle to keep up.

In this report, we will cover the history of the Metaverse and the significant events that led us here. We will also investigate where we think the market is heading based on our months of research and studying the growth of the market. Metaverse Insider will continue to publish news and updates regarding the metaverse industry, including a quarterly Metaverse Market Report. Please subscribe to our newsletter to keep updated with all things Metaverse.

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MULTIVERSE ACCELERATOR - WE'RE INTEROPERABLE

Leveraging our large network of established metaverse operators, leading ERC20 token projects, and crypto-native communities we can accelerate the launch and scaling of our clients' metaverse initiatives.

**EVOLVING ENTERPRISES
ON BRAND:ON CHAIN**

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METaverse INSIDER'S Q3 INDUSTRY HIGHLIGHTS

JULY 2022

Dubai Metaverse Strategy

- The government of Dubai announced their Metaverse strategy which includes increasing the presence of blockchain and metaverse companies by five times in five years. This announcement makes it into our highlights as this is the most ambitious metaverse plan by any government yet.

Barcelona FC partners with BCN Visuals

- Barcelona FC launched an exclusive NFT collection. The first NFT titled In a Way, Immortal, which is inspired by Johan Cruyff, a legend of the football club. This NFT collection has made it into our highlights as it was auctioned by Sotheby's, one of the largest brokers of fine arts, jewelry, and collectibles.

AUGUST 2022

Capgemini & Unity Announce a Global Alliance Partnership

- Capgemini and Unity joined forces to help organizations everywhere explore and seize business opportunities and the benefits of immersive and metaverse experiences across industries. The joint R&D projects by Unity and Capgemini Metaverse Lab can cultivate some of the most significant metaverse projects.

Ready Player Me Announces \$56M Series B

- Ready Player Me announced it raised \$56 million in new funding led by Andreessen Horowitz. This investment can be critical for developers looking to build interoperable avatars and digital assets.

SEPTEMBER 2022

Atari Reveals Sunnyvale

- Atari has announced the launch of Atari Sunnyvale, a massive social and gaming experience in The Sandbox. Roblox continues to be a leading metaverse as brands like Nike, Burberry, and now Atari chooses this platform to build their virtual space.

NVIDIA - Omniverse Cloud Services & OVX Computing Services

- Nvidia unveiled Omniverse cloud, software, and infrastructure as a service offering. Moreover, they unveiled the second generation of OVX Computer Systems. These offerings make NVIDIA one of the world's leading metaverse companies. Companies like BMW Group, Lenovo, and Jaguar Land Rover are all NVIDIA customers as they pivot their organizations towards the metaverse.

KEY TAKEAWAYS

The Metaverse Industry is still evolving.

The Metaverse as a concept is still not defined. As Metaverse Insider's Market on Page [16] shows, the metaverse industry covers a vast spectrum of new evolving technologies, including blockchain, 5G, and AI. This industry does not only rely on Virtual and Augmented Reality. Decentralization from blockchain, Connectivity from 5G, and rapid development from Artificial Intelligence are just a few of the components of this fast-evolving industry.

The WEB 3.0 Companies may take over the industry.

The concept of decentralization really materialized in 2008 when the whitepaper for Bitcoin was issued by the alias of Satoshi Nakamoto. The idea that gave birth to Bitcoin eventually took over other industries with Ethereum's introduction. With the Ethereum blockchain users were able to create decentralized applications. Today, Web 3.0 is closely tied to decentralization and open-source applications. Web 3.0 companies are introduced (page [20]) and many of them may be the next big tech company.

There are still a lot of opportunities.

With most of the decentralized and centralized virtual worlds being introduced in the past two years, the industry is still very new. As mentioned in our first takeaway, the industry is still evolving. Which means there are still many opportunities for Developers and Investors. We truly believe, virtual reality development is a huge opportunity as many companies give developers a chance to create applications on their platforms. Virtual items can be sold through ECommerce platforms. With the use of augmented reality, the sellers of real products will be able to enhance their sales pages as well. Lastly, virtual assets are still an undiscovered area. We have seen the rapid rise (and fall) of non-fungible tokens. However, NFTs of music, real estate, and virtual designer products seem to be something to look out for.



HOW DID WE GET HERE? – 4 BIG TIMELINES

To understand how we got here, we look at historical moments that defined the Metaverse market landscape today. While many milestones have led to the introduction of the metaverse industry, we discuss timelines of four key areas.

We explore these four historical timelines

1. The inception of Virtual Reality
2. The birth of the headsets to explore the metaverse
3. The conception of the term “Metaverse”
4. The Decentralization of Virtual Worlds

1

The inception of Virtual Reality

1956 The Inception of Virtual Reality
1977 A Map using Virtual Reality
1977 Gesture Recognition
1987 Use Cases for Virtual Reality
2007 First Major Public Use Case for VR

2

The birth of the headsets to explore the metaverse

1960 Telesphere, First Head-Mounted Display
1961 First Motion Tracking Head-Mounted Display
1968 First Virtual Reality Head-Mounted Display
1995 Virtual Reality Headsets to Market
2012 The birth of Oculus Headset

3

The conception of the term “Metaverse”

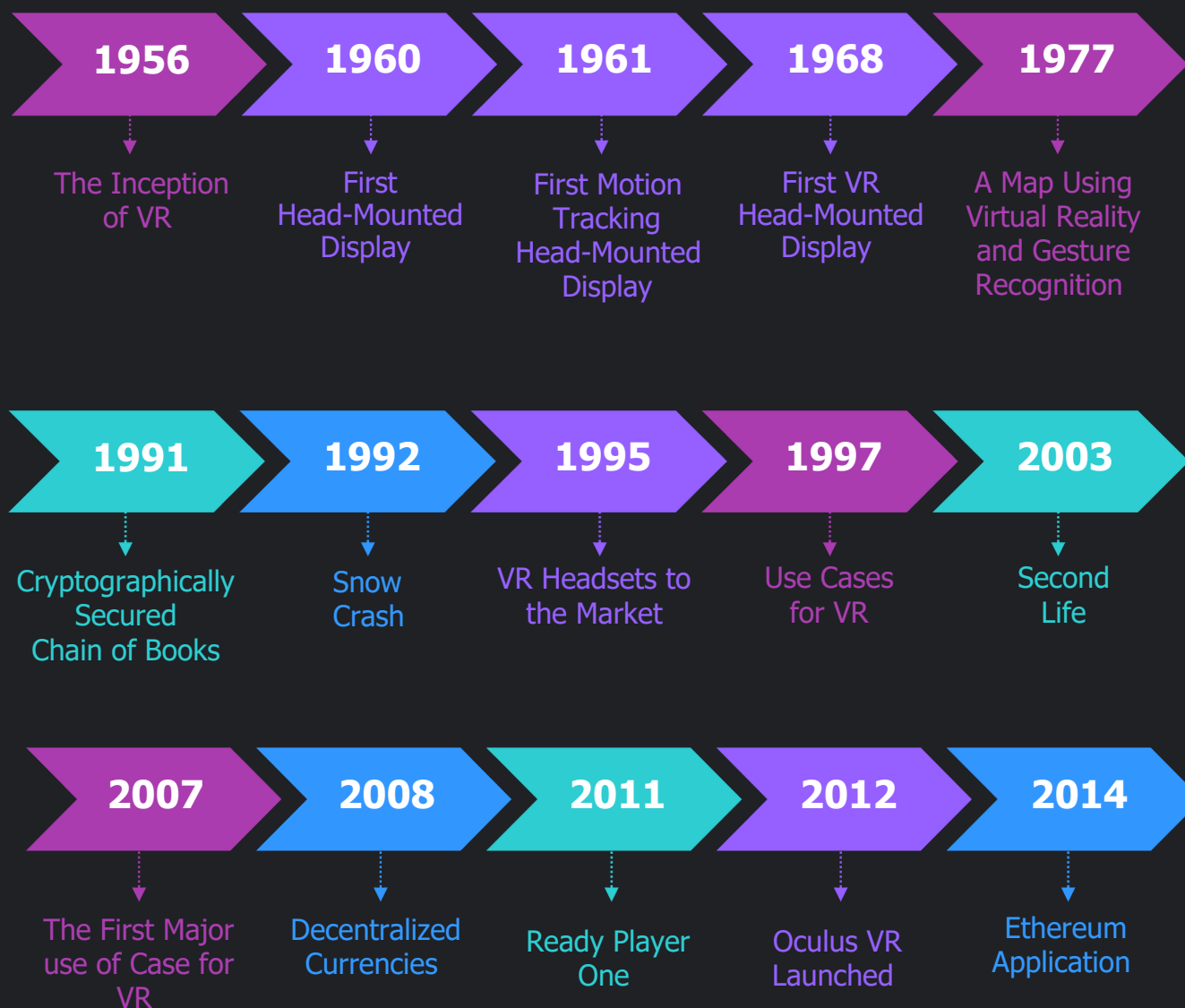
1992 Snow Crash
2003 Second Life
2011 Ready Player One
2018 - 2020 Decentralized Metaverse
2021 Centralized Metaverse

4

The Decentralization of Virtual Worlds

1991 Cryptographically secured chain of blocks
2008 - 2009 Decentralized Currencies
2013 - 2015 Blockchain Technology with other capabilities

METaverse – TIMELINE OVERVIEW



2018-2021 Virtual Worlds Launched

EARLY TIMELINE OF VIRTUAL REALITY

1956 – The inception of Virtual Reality

In 1956, a cinematographer named Morton Heilig created Sensorama - the first-ever Virtual Reality machine assembled (patented in 1962).ⁱ This machine combined 3D video, audio, vibrations, and other effects to create a VR environment. According to Heilig, this was the cinema of the future. At the time, six short films were developed using this technology. 2D technology has continued to be the primary source of entertainment in cinemas and televisions. Perhaps, Heilig had not realized where the immediate use of his technology would be.

1977 – A Map using Virtual Reality

In 1977, MIT created an experience where users could virtually wander across Aspen city. This virtual experience was called Aspen Movie Map.ⁱⁱ It allowed three modes: summer, winter, and polygons. Like Google Street View, this experience was created by photographs taken in a moving car. Perhaps, this was the first experience which suggested users could travel to different places using virtual reality.

1977 – Gesture Recognition

In 1977, Sayre Gloves were created by Sandin and Defanti.ⁱⁱⁱ The gloves were wired and allowed a user's hand motions to be monitored. Gesture Recognition was introduced as the user's finger movements into electric signals were recorded. This was a huge milestone as these gloves realized the importance of haptics.

1997 – Use cases for Virtual Reality

In 1997, Georgia Tech and Emory University researchers used Virtual Reality to create war zone scenarios. These were designed for Vietnam war veterans as exposure therapy for PTSD.^{iv} This project was also called Virtual Vietnam. This was one of the first prominent use cases for virtual reality, which was used by an established organization to simulate a real-world scenario.

2007 – First Major Use Case for Public Use

In 2007, the first critical use case of Virtual Reality was Google's Street View. Google hired an Immersive Media contractor to capture four out of five cities initially introduced.^v Immersive Media had a patented dodecahedral camera array on a moving car. This was a breakthrough in the industry as the general public was able to see the use case of virtual reality for free in the most popular search engine at the time.

TIMELINE OF VIRTUAL REALITY HEADSETS

1960 – Telesphere – First Head Mounted Display

In 1960, Helig patented the Telesphere Mask, the first-ever head-mounted display. This headset provided stereoscopic 3D images with broad vision and stereo sound. There was no motion tracking at this point.

1961 – First Motion Tracking Head Mounted Display

In 1961, Headsight was created, which was a motion-tracking device. It had a built-in video screen for each eye and a head-tracking system.^{vi} This display allowed the military to look at hazardous situations remotely. A remote camera imitated the head movements so the user could look around the setting. However, this headset was not used for virtual reality.

1968 – First Virtual Reality Head Mounted Display

In 1968, the first Virtual Reality head-mounted display, The Sword of Damocles, was invented. This head-mount was connected to a computer rather than a camera and was able to show simple virtual wire-frame shapes. It could not be a commercially viable product as the head-mounted display was deemed uncomfortable, and it required users to be strapped in because it was suspended from the ceiling.

1995 – Virtual Headsets to Market

In 1995, the Virtual Boy console was released. It was a head-mounted console which displayed stereoscopic 3D videos. While this was a commercial failure, the Virtual Boy laid the foundation for other VR headsets to be built in the future. As innovation increased in the Virtual Reality headset space, startups like Oculus were born.

2012 – The birth of Oculus Headsets

A Kickstarter campaign by an American entrepreneur called Palmer Luckey was launched. This campaign was for a Virtual Reality headset called Oculus Rift, which raised \$2.4 million. Oculus headsets revolutionized the Virtual Reality headset market. Oculus, as a company, grew at a rapid rate. Just two years later, the business was purchased by Facebook, which saw the opportunity presented by the rapid growth of the VR industry. These headsets changed the sector as significant VR headsets development happened after this acquisition. Sony, Google, and Samsung all announced their own VR headsets as they realized a new market was being created for these headsets.

TIMELINE OF THE METAVERSE CONCEPT

1992 – The term metaverse comes into being

In June 1992, Neal Stephenson released a novel called *Snow Crash*.^{vii} The metaverse as the concept we understand today was arguably first used in this novel. The characters used this virtual world to escape from their world. Today, this book is a cult classic, especially among the entrepreneurs in Silicon Valley.

2003 – The first Metaverse?

In 2003, a virtual world platform called *Second Life* was introduced. *Second Life* is often regarded as the first metaverse as it had a three-dimensional world with the user represented as an avatar.^{viii} *Second Life* laid the foundation for many other popular entrants into the metaverse, including *World of Warcraft*, *Minecraft*, and *Fortnite*. While we call all these games metaverses, they were just introduced as multiplayer games.

2011 – Ready Player One

In 2011, Ernest Cline released a book called *Ready Player One*.^{ix} This was another book that talked about being immersed in an immersive world that will help us escape from reality. Like *Snow Crash*, this book is prevalent among the early adopters of the metaverse. In 2018, Steven Spielberg made it into a movie. In this movie, the concept of a virtual world had been visualized in front of the public.

2018 – 2020 – Decentralized Metaverses

The Sandbox, a game released in 2012 was acquired by Animoca Brands in 2018. The idea behind this acquisition was to build it for a blockchain version of the game. In April 2022, this is a hugely popular decentralized metaverse with a valuation of \$4 billion.^x 2 years later, in 2020, *Decentraland* was launched. This decentralized metaverse gateway allows users to run an in-game economy through their native MANA cryptocurrency. Users can also purchase their land which they can build upon. They can use this virtual land to generate income through holding events, renting it out or flipping it for a profit.

2021 – Centralized Metaverses

2021 was a breakout year for many of the metaverses. Meta's *Horizon Worlds* is a notable virtual reality online video game with an integrated game creation system. It was officially released in North America for users over 18. *Horizon Worlds* is quickly gaining popularity thanks to the sales of Meta's *Quest VR* headsets and extensive marketing. After their Superbowl advertisement, Meta's *Horizon Worlds* hit 300,000 users.^{xi}

There are some distinctions between Centralized and Decentralized Metaverse Gateways. Here are some differences – both have their pros and cons.

	Centralized Metaverse	Decentralized Metaverse
Control	✗ Core Controlled – Controlled by single entity	✓ Community Controlled – Open-Sourced Platform
Token Validity	✓ Tokens valid only in the metaverse	✓ Cross Platform Tokens – Blockchain Technology
Resources	✓ More Capital for Mixed Reality Development	✗ Less resources to improve user experience
User empowerment	✗ Reduced Empowerment for Users	✓ Empowered users
Collaboration	✓ Increased collaboration between departments	✗ Risks Organizational Silos
Talent	✓ Flexible Talent Deployment	✗ Difficulty deploying talent

“ We realized as devices become smarter, they ought to be able to manage themselves. They ought to be able to interact with each other in a decentralized way. So, I started looking into decentralization technology. And one of my colleagues is like, you know Paul, I met this guy, a little strange, his name is Vitalik Buterin. And he wants to take Bitcoin and turn it into something that’s more computing oriented”- Paul Brody, EY

TIMELINE OF DECENTRALIZATION AND BLOCKCHAIN TECHNOLOGY

1991 – Cryptographically secured chain of blocks

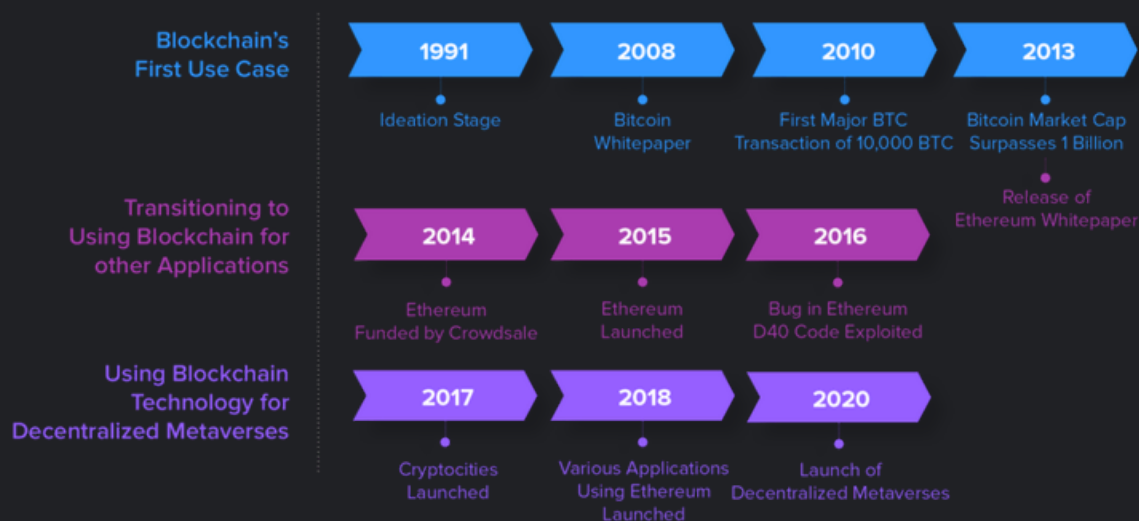
In 1991, Stuart Haber and W. Scott Stornetta envisioned the idea of blockchain technology. They worked on a project that involved a cryptographically secured chain of blocks whereby no one could tamper with the documents' timestamps. This technology would be massive in the evolution of the financial industry decades later. Moreover, along with virtual reality, this technology was to play a massive part in the emergence of the Metaverse.

2008 – 2009 – Decentralized Digital Currencies are introduced.

In 2008, the financial markets was in the midst of a recession. Around this time an unknown person or a group of people using the name Satoshi Nakamoto released a white paper which introduced the world to blockchain technology. This was first implemented in January 2009, when Bitcoin was initially released. This technology has had a massive impact in the financial marketplace. This technology is perhaps the final jigsaw in the puzzle in the metaverse ecosystem.

2013 – 2015 – Blockchain Technology with other capabilities

In 2013, Vitalik Buterin realized that there were certain limitations to Bitcoin. In addition to being a peer-to-peer network, Ethereum added additional capabilities that turned out to be a pivotal feature in blockchain technology, Web 3.0, and the subsequent extensive development of the internet. In 2015, Ethereum was officially launched. This blockchain technology could support smart contracts. While other blockchain technologies continued to develop, Ethereum is still the most popular blockchain for non-fungible tokens and the economy in general in most decentralized metaverses. Xii



CEO SPOTLIGHT

ROBERT GRANDE, CEO



As an early adopter of blockchain technology, Roberto has hands on experience building, operating, and scaling projects, campaigns, and communities across the full spectrum of evolving Web3 experiences. Recognizing that building the “brand chain” requires collaboration across disciplines, Roberto founded 3GEN, a dedicated Web3 advisory group powered by brand and blockchain natives. 3GEN helps clients design and deploy Web3 transformation initiatives designed to create new enterprise value, expanding business and brand platforms into the next generation of commerce and customer experiences.

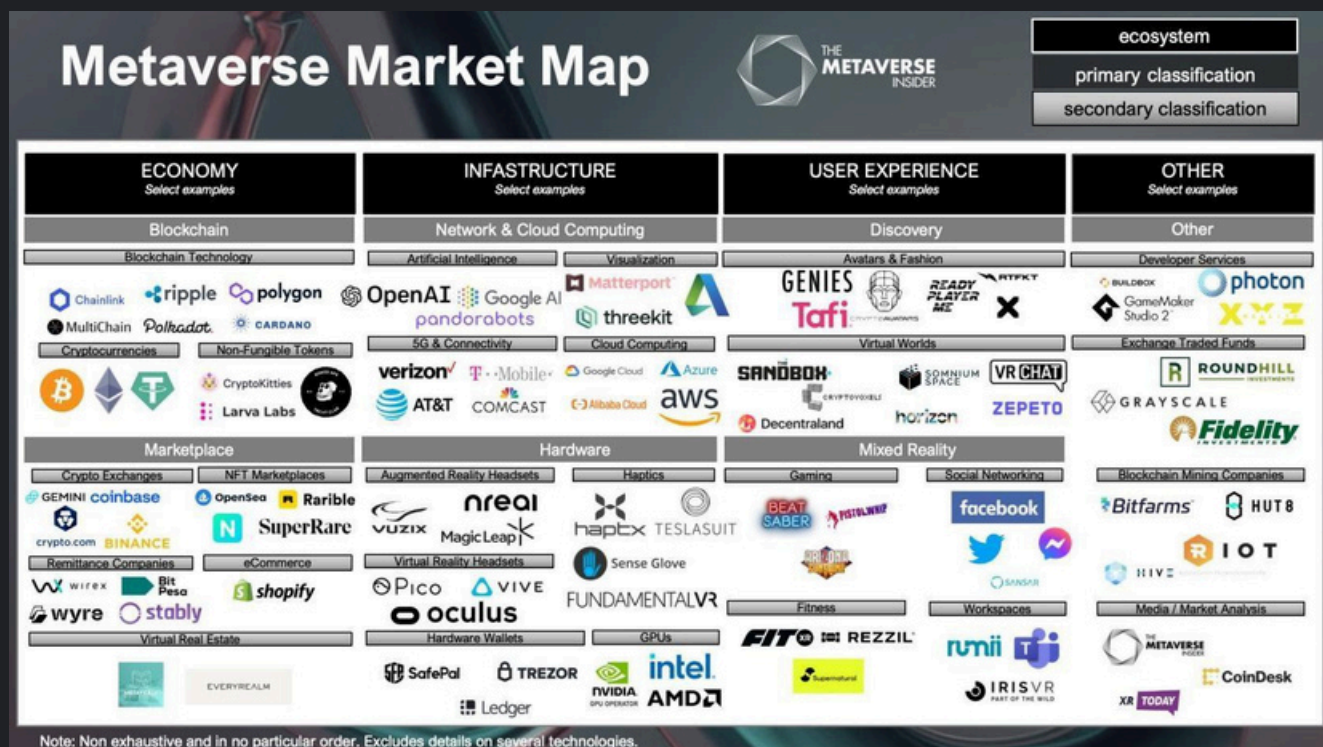
“The Web3 evolution is already giving rise to a new consumer; they’re a community not an audience, stakeholders not customers, and their attention is evidenced by their investment. For marketers, activating in the nascent stages of Web3 is both a business imperative and an opportunity. Keeping up with next gen consumer behaviors is table stakes; early entry also gives brands the necessary learnings to claim presence and capture value across all aspects of the growing ecosystem.”— Robert Grande, CEO 3GEN

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AN OVERVIEW OF THE METAVERSE

The Metaverse Ecosystem is enormous and growing. The Metaverse Insider released a Metaverse Market Map where the current landscape of the Metaverse was outlined. Some examples of companies involved in these markets are listed in the following graphic, but this is understandably not exhaustive. Metaverse Insider will be releasing a data platform which will have more comprehensive data for the metaverse market.

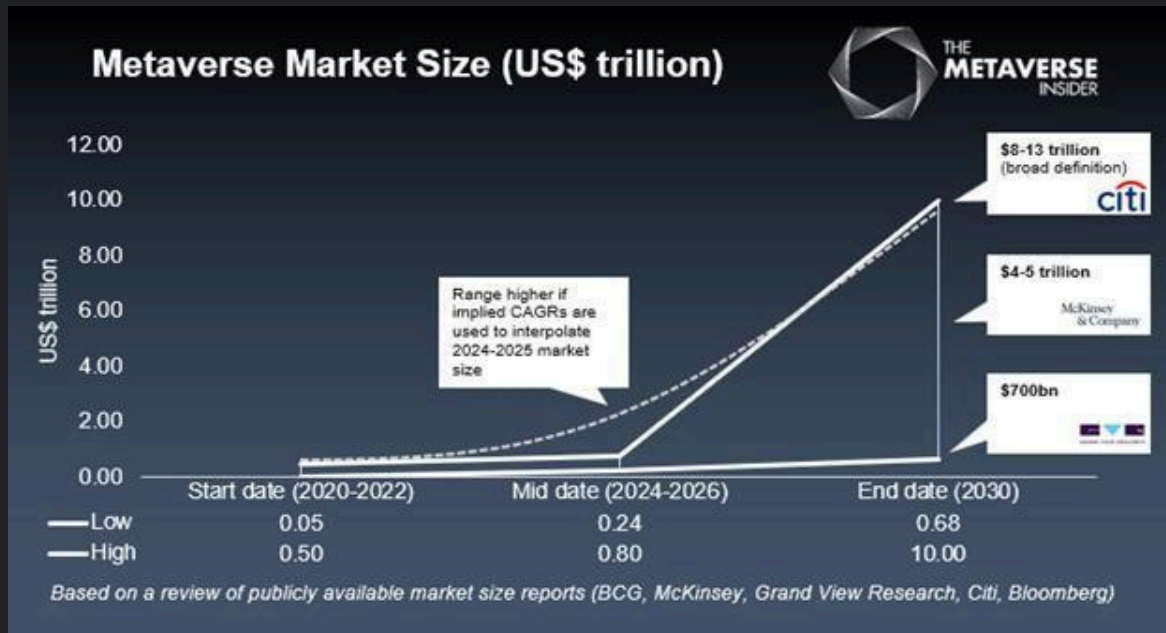


According to the Grayscale's Research article, published in November 2021, the total market cap of the leading Web 3.0 Metaverse crypto network sits at \$27.5 billion. However, the addressable market is much higher as Web 3.0 companies start to infiltrate different industries dominated by Web 2.0 companies. Grayscale's research shows the addressable metaverse market divided into different categories.^{xiii}

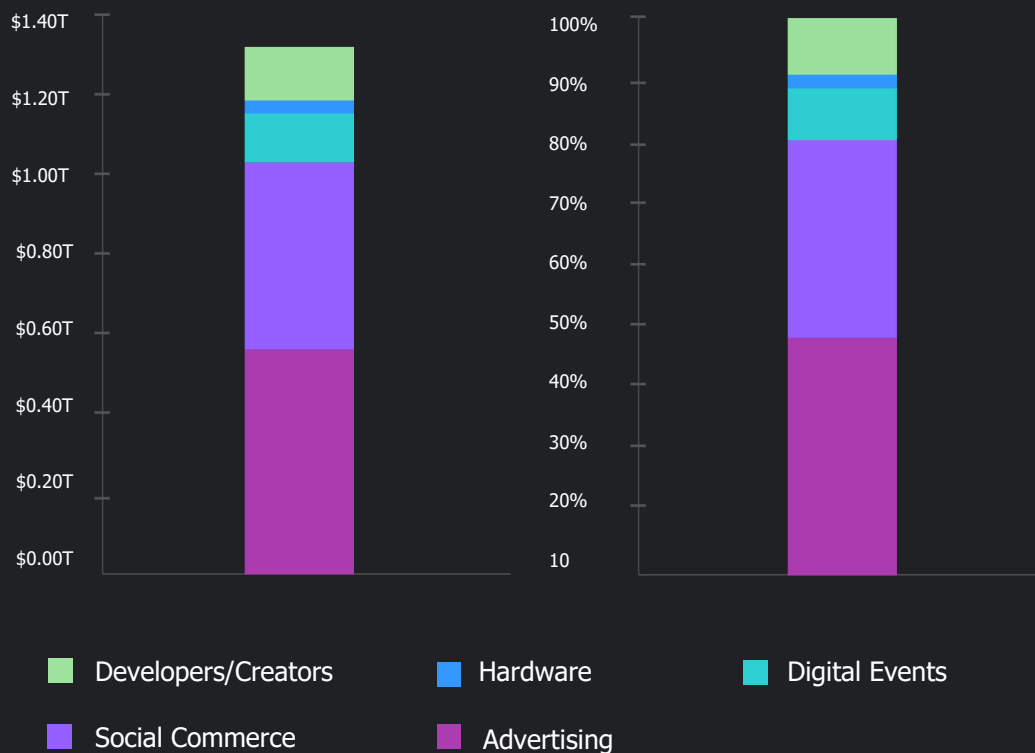
“It is enabled by many different technologies like AR, VR, edge computing, Blockchain, cloud computing, AI, and others. So, it is not just one single technology, and it is not one single company. Many different companies are constructing it.” – Cathy Hackl, Journey

GLOBAL METAVERSE POTENTIAL TOTAL ADDRESSABLE MARKET

Metaverse Insider Market Sizing^{xiv}



Global X Metaverse Potential Total Addressable Market^{xv}



MIXED REALITY

Mixed Reality is the integration of digital worlds into physical reality. Mixed Reality is typically understood as either Augmented Reality (AR) and Virtual Reality (VR). The purpose of Mixed Reality is to free users from being screen-bound and enabling the integration of technology into their day-to-day lives. If done correctly, Mixed Reality can perhaps be a great supplement to our lives and encourage self-sufficiency. To understand Mixed Reality, we need to understand Augmented Reality and Virtual Reality properly.

Virtual Reality

The concept behind Virtual Reality is to create an immersive computer-generated environment where users can experience their surroundings as if they are present in the space. VR technology can be used to play video games, train for a sport, or even attend virtual events like a concert.

Augmented Reality

Augmented Reality is an interactive experience of a real-world environment where this technology can enhance the experience of the real world. This technology incorporates visual, auditory, and haptic technologies to add to the current human experience. AR technology can be used for work and play video games

Virtual Reality + Augmented Reality = Mixed Reality

Fully Artificial World



Virtual Objects Overlaid on Real-World Environment



Virtual Environment in the Real-world



Full Immersion Virtual Environment



Real World Enhanced with Digital Objects



Interact with both Real World and Virtual World



HEADSETS

Mixed Reality, addressed on the previous page, can only be accessed by headsets. Headsets in the Metaverse Industry can be considered the portal through which users access virtual worlds. These headsets have unique characteristics suited for different purposes. Many of these headsets provide full immersion in to a virtual world (Virtual Reality Headsets) while some are glasses which enhance our lives in the real world (Augmented Reality Glasses). Thus, it is essential to discuss these headsets in the market.

Headsets are not used solely for gaming and leisure experiences. They are expected to be used across commercial industries such as medicine (enhancing operations), education and training (richer learning experiences), amongst others.

Virtual Reality Headsets

Virtual Reality Headsets are an essential aspect of entering a virtual world. While VR headsets have been in the market for a long time (as previously discussed), there does not seem to be a lot of competition in the market yet, as Oculus has taken a substantial lead in sales, selling 8.7 million units in 2021. These were 78% of all Virtual Reality Headset sales last year.^{xvi} However, we anticipate an increase in competition with HTC and Pico improving their headsets with new upgrades and Apple reportedly getting to launch their version of Mixed Reality glasses.^{xvii}

Augmented Reality Glasses

Augmented Reality Glasses are worn to enhance a user's day-to-day life. While these glasses are less understood than Virtual Reality Headsets, AR glasses have a huge potential to become a staple in the future for working professionals and people who want to enhance their lives. The AR glasses in the market today, like Meta's Rayban Stories and Spectacles by Snap, are mainly used to take pictures, record videos and make phone calls. On the other hand, AR glasses like Microsoft HoloLens are used to enhance the lives of working professionals. The AR glasses that better users' day-to-day lives are perhaps yet to be made.

Physical World

Digital World

Augmented Reality



Virtual Reality



Mixed Reality

WEB 3.0

Over the past few years, users are becoming increasingly conscious of their data and who can control it. In recent times, users of tech are doubting whether they should be giving so much of their data and subsequently power to centralized tech companies. Decentralization seems to be popular among people adopting core technologies enabling the metaverse. Thus, what had started as a whitepaper by the alias, Satoshi Nakamoto is impacting the finance world and greatly impacting the new wave of technologies and the Metaverse.

Web 3.0 is a phrase used to describe the direction the World Wide Web is headed, primarily through the use of blockchain technology. As the internet world has evolved, the eras have been divided into Web 1.0 and Web 2.0, and now Web 3.0. The concept is a useful way to explain how specific industries within the internet have evolved. Web 1.0 was the earliest version of the internet. It can be considered the first ever "iteration" of what was to become a growing, evolving, medium that eventually expanded into a platform with profound multi-functional uses. Web 2.0 captured these technologies and aggregated them into data which could be used to create a common platform that people used on the internet.

In the table below, we explain how industries evolved from Web 1.0 to Web 2.0.

Web 1.0	Forums	Websites	Read Only Web	Dial up Internet	Screen Scraping
Web 2.0	Social Media	Websites & Applications	Read and Write Web	Broadband Internet	APIs

The focus of Web 2.0 was almost bringing applications to supplement the web pages. With Web 3.0, the concept is to perhaps change the over-centralization in the tech world and give the users more control and monetary interest. We investigate some of the companies that have been born in a new era in the world of the internet.

Industry	Web 2.0	Web 3.0
Social Network	Facebook	Decentraland/ The Sandbox
Browser	Google Chrome	Brave
Information	Wikipedia	Semantic Web
Medium of Exchange	Paypal	Metamask
Gaming	Fortnite	Axie Infinity

UNTAPPED OPPORTUNITIES

As we understand the history of the metaverse and the current state of the industry, we can truly understand the current state of the metaverse companies. This also helps us predict what can happen in the future. We now investigate three significant opportunities in this space. We believe the following are areas that have not fully realized their full potential.

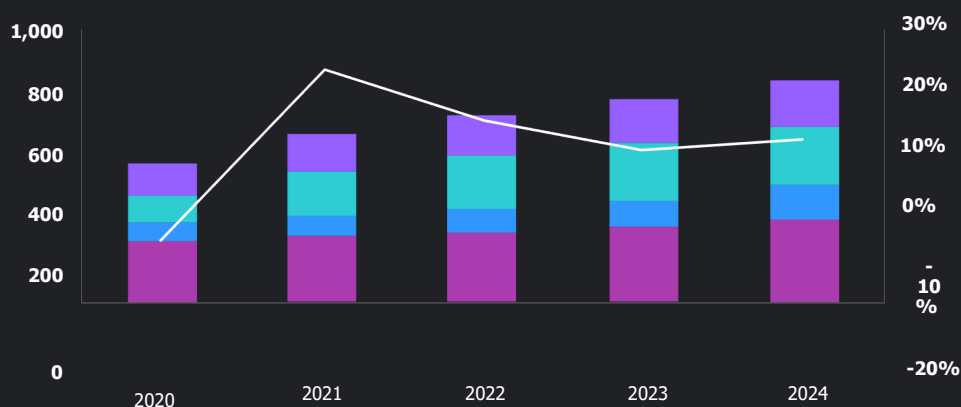
***Please note this is not financial advice.**

We believe the following three areas in the metaverse have untapped opportunities.

1. Virtual Reality Development: Developing high fidelity 3D content is in high demand.
2. Ecommerce: Enhancing the shopping experience through Augmented Reality has great potential.
3. Professionalization of Virtual Assets: As NFT projects have taken off, investors are still not confident about the long-term application of this technology.

According to Bloomberg, the Metaverse Market, which was a \$500 billion in 2020 (when virtual worlds started to gain popularity) will be a \$800 billion dollar market by 2024. This represents an annual compound growth rate of 13.1% based on Bloomberg's analysis.^{xviii}

Metaverse Market Growth Outlook



 Social Media Ads

 Live Entertainment

 Gaming, AR & VR Hardware

 Gaming Software, Services & Ads

VIRTUAL REALITY DEVELOPMENT

We have seen graphics in 2D evolve over the past few decades as technology has improved dramatically. Gaming enthusiasts are aware of graphics getting increasingly better to a point that they have become ultra- realistic. However, the challenge to replicate these graphics in 3D is complicated. Simple graphics like creating 3D arms in virtual reality are a challenge for developers. Thus, there is a great need for talent as well as companies who can enhance the 3D technology and make it in high fidelity.

The concepts of the metaverse and complete immersion in a virtual space depend on these graphics being improved. Thus, companies like Meta and Microsoft are eager to compete for talent to take a lead in this space. Meta has announced millions of dollars in investment for developers who build for Oculus and their metaverse called Horizon Worlds. Meanwhile, Microsoft has taken a different approach by acquiring Activision Blizzard. This acquisition has given Microsoft the opportunity to get access to developers who have built some of the best and most interactive immersive gaming experiences in the past few decades.

Here are some of the companies that we believe will have an impact on Virtual Reality Development

Company Name	Business Description
 genvid technologies	Genvid holds live events in the metaverse
 WOLF3D	Wolf3D helps develop virtual identities
 GameMaker Studio 2™	GameMaker is a series of cross platform game engines
Crucible	Crucible is a developer of an SDK platform designed to provide secured and portable digital identity
 JUEGO Studios	Juego Studios global technology company which specializes in game development, mobile application development, enterprise solutions, AI, & machine learning.
 FORTE	Forte Helps develop Blockchain Platforms for game developers
 THE FABRICANT	The Fabricant creates 3D virtual designs
 BUILDBOX	Buildbox is a no-code development platform focused on game creation without programming, coding or scripting.
 photon	Photon is a multiplayer game development platform
neuno	Neuno helps design a wardrobe for your avatar in the metaverse.

ECOMMERCE

Before metaverse virtual worlds become popular, ecommerce was a \$10 trillion industry in 2020 as almost every big retailer utilizes the internet and social media to reach their customers and sell their products.^{xix} The growth of Metaverse will impact the ecommerce industry as many big brands are starting to get involved in this space. Nike's acquisition of RTFKT, a developer of custom virtual products, will help the company be a part of this next wave of technology. Gucci, a luxury brand, took a different approach by teaming up with Roblox to release Gucci Garden, which is a virtual exhibit for the brand.

Many users who think about Ecommerce in the metaverse industry, only think about brands launching NFTs. Another aspect of Ecommerce will perhaps play a bigger part in this space. Augmented Reality is massive for the Ecommerce space. When shopping online, many buyers complain that the product seemed different once it arrived in person. Augmented Reality will help solve this issue as users will be able to feel the products in their space. Shopify has already implemented this as an optional service for the businesses who use their platform. Moreover, companies like Threekit are helping users display their products in 3D as well. Matterport is a Y-Combinator graduate which also uses virtual reality to help users immerse in a space before making a purchasing decision.

Here we list 2 types of companies which we believe may have a major impact in ECommerce. One of them uses Augmented Reality to purchase real life products and the other one uses virtual reality for virtual products.



Companies which use **Augmented Reality in ECommerce**


threekit

Matterport™

shopify



Companies which use **Virtual Reality in ECommerce**





PROFESSIONALIZATION OF VIRTUAL ASSETS

Web 3.0 and Blockchain Integration has become essential for many Virtual Worlds. These Virtual Worlds allow users to interact in the Metaverse as they would in real life. They can buy virtual property and they can exchange assets which are many times open source and cross platform. These virtual assets can also be called Non-Fungible Tokens. As of now, NFTs have become synonymous with digital art being sold online. However, NFTs are so much more than that. They can be virtual assets in and out of the metaverse. We investigate virtual assets that we think will be the most valuable in the coming years.

Virtual Designer Products:

We touched upon virtual products in the Ecommerce section as well. These designer products can be considered a virtual asset. Being able to own these products in blockchain technology means that it is verified that it is your own product. Many of these designer products are cross platforms which means the users' avatars can travel in different virtual worlds and show off their virtual designs. Perhaps many big retail brands will start to provide buyers a virtual product as well as they purchase it in real life. This way, they will be able to wear their product in real life and virtually through their avatar.

Virtual Real Estate:

Virtual spaces in the metaverse can be very popular as they are attracting a large, rapidly growing number of users. As people join virtual worlds like Decentraland and The Sandbox, they will interact with other users in these spaces. This is when users will be able to monetize their virtual land by renting it or hosting events. The biggest barrier to this investment is that investors have not realized which of these virtual worlds will be the most popular in the coming years. However, Metaverse real estate companies seem to be established which are helping users buy virtual real. Metaverse Properties, a Toronto startup has established a Real Estate Investment Trust which can help users invest in virtual land.

Virtual Music:

Non-Fungible Tokens have expanded into the music industry as top artists like Shawn Mendes and The Weeknd are capitalizing in this space. There is a big possibility that the future of the music industry will be hugely tied into NFTs as investors will be able to purchase music as an NFT. Snoop Dogg purchased Death Row Records, a label he used to be a part of. This record label will be an "NFT Label" according to Snoop Dogg.

“ Once that dude shipped the little program that you could just put the little pictures in and print out an entire generative collection. So many of those things (NFT projects) were pushed out. Few of them have any sort of real utility. A lot of that is going to go away.” Jason Brink, Gala Games

CONCLUSION

The Metaverse is a fast-evolving, commercial industry. The adoption of many of the metaverse enabling technologies are becoming increasingly well-known and understood. Nonetheless, these technologies are still in development, and we are far from the finished product. Currently, the scenario may seem very similar to the dot-com boom. This is because there are lots of new companies and developers entering the market and are trying to take advantage of the popularity of virtual worlds, blockchain technology, and the new money invested into this field. Unfortunately, not all these companies will be successful.

Metaverse Insider has tried to compile this market research report to bring a better understanding of the current landscape of these disruptive technologies. We truly believe it is important to understand the history of the technologies at play here as many of these technologies are still in their infancy and the history will help us identify the purpose of these technologies. The current landscape is vast and still complicated to navigate. This report focused on Mixed Reality and its headsets, the metaverse in general, and the WEB 3.0 companies which are gaining traction. We have also investigated the technologies that have massive potential to gain market share.

“ We need to be accessible. We need to be humble, and we need to say that we are all learning and everybody’s trying to figure it out. We need to proactively attract women and very diverse talent because it’s not just about developers. This is touching every industry. You need marketers. You need economists. You need people who are thinking through laws and regulations and attracting talent.” – Marieke Flament, NEAR Foundation



KEY TAKEAWAYS

The Metaverse Industry is still evolving.

The Metaverse as a concept is still not defined. As Metaverse Insider's Market on Page [16] shows, the metaverse industry covers a vast spectrum of new evolving technologies, including blockchain, 5G, and AI. This industry does not only rely on only Virtual and Augmented Reality. Decentralization from blockchain, Connectivity from 5G, and rapid development from Artificial Intelligence are just a few of the components of this fast-evolving industry.

The WEB 3.0 Companies may take over the industry.

The concept of decentralization really materialized in 2008 when the whitepaper for Bitcoin was issued by the alias of Satoshi Nakamoto. The idea that gave birth to Bitcoin eventually took over other industries with Ethereum's introduction. With the Ethereum blockchain users were able to create decentralized applications. Today, Web 3.0 is closely tied to decentralization and open-source applications. WEB 3.0 companies are introduced (page [20]) and many of them may be the next big tech company.

There are still a lot of opportunities.

With most of the decentralized and centralized virtual worlds being introduced in the past two years, the industry is still very new. As mentioned in our first takeaway, the industry is still evolving. Which means there are still many opportunities for Developers and Investors. We truly believe, virtual reality development is a huge opportunity as many companies give developers a chance to create applications on their platforms. Virtual items can be sold through ECommerce platforms. With the use of augmented reality, the sellers of real products will be able to enhance their sales pages as well. Lastly, virtual assets are still an undiscovered area. We have seen the rapid rise (and fall) of non-fungible tokens. However, NFTs of music, real estate, and virtual designer products seem to be something to look out for.

ABOUT METAVERSE INSIDER

Founded in 2021, Metaverse Insider is the leading provider of news and information on the Metaverse industry. It was developed by our team who acted to address the gap in the market for quality media and market analysis in the emerging metaverse and web 3.0 space.

Metaverse Insider also helps organizations in this space to promote their business. For more information, please visit www.metaverseinsider.tech

To contact the author, please email: waz@metaverseinsider.tech

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END NOTES

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