# Welcome to the metaverse

## In-depth: The Games Industry

Prepared for Improbable by Enders Analysis

ENDERS | ANALYSIS

January 2023

# “Welcome to the Metaverse”: déjà vu anyone?

For the media and entertainment industry the dawn of the metaverse and the word soup of acronyms that accompanies it is the latest high profile technology wave that threatens to simultaneously up-end established distribution models and reinvent both the experience and relationship with the audience.

Many companies will feel they have been here before.

The last 25 years have seen digital distribution relegate physical content formats to history. Likewise search and on-demand services have transformed audiences' ability to find the content they want when they want it. Device types have changed from fixed heavy boxes, to always connected mobile-first form factors.

What is forgotten is how many companies never recovered from these changes, never adapted and and never took a positive approach to the advance of new technology until it was too late. Change was forced on them, and new companies rose where others failed. Netflix, Spotify, Amazon.

The Metaverse is the next transformation – it is coming. Its shape is not yet fully defined, its technology and experiences are still being developed. But the opportunity to be early, to learn and design it, and grow an audience that is digital and metaverse first is here now.


2022?


1994?

# Our definition of the metaverse


- **A combination of physical and digital worlds—embodying a unified digital presence into physical and virtual lives**
- **Fully formed high fidelity 3D worlds that embrace mixed reality via AR/VR but not exclusively**
- **Always on, persistent, and real time**
- **Unlimited immersive and social interaction that can occur at any scale**
- **A seamless digital economy delivering creation and marketplace opportunity**
- **An advanced workspace with new forms of collaboration, productivity and communications**

It is clear that a fully realised, *fully optimised* metaverse is many years away. There will also be multiple metaverses which will have varying degrees of interconnectedness. As such, the broad sweep of its capabilities will result in usage and experiences that we cannot foresee.

Our working definition of the metaverse is therefore focused on the broad components *and their utility* that will redefine the global digital experience in the future.

# Welcome to the Metaverse: The Games Industry

- **The games industry remains the most influential and important sector for development of the metaverse –** with core technologies and infrastructure, creative design, and engaging franchises all encouraging large scale ongoing investment that will result in much wider deployment of metaverse friendly experiences throughout the digital ecosystem.
- **Early proto-metaverses are already in place –** such as Fortnite, Roblox, and Minecraft that engage hundreds of millions of players with virtual economies, social interaction models, and mechanics that are capturing young and growing audiences that will ultimately have enormous ramifications for metaverse experiences in the future.
- **Sectors of the games industry remain a work in progress** regarding the metaverse, as differences in vision for franchises, platforms, and technology all continue to result in protracted and noisy debate. Major Studios are taking a studied "wait and see" approach. A steady focus on next-gen gameplay and high-quality engaging experiences will be the most effective path for game makers, avoiding gimmicks and speculative, high friction, revenue models.
- **Independent game makers will face substantial hurdles** if major platforms follow precedent and implement onerous technical and revenue requirements for participation in their prospective metaverses. Independent platforms and service providers could provide a viable and engaging alternative to the majors through delivering an indie-friendly showcase that provides a clear pathway for scale, interoperability, and innovation.

# How the games industry has influenced metaverse design

The games industry can legitimately be called a prototype for future metaverse development, and already has multiple instances of metaverse-like worlds operational. From its earliest attempts at building virtual worlds (Second Life 2.0 started in the mid-noughts) through to its huge entertainment franchises with explorable worlds (GTA, Roblox, Minecraft) the games industry will retain an outsized influence across the wider metaverse, not just media and entertainment, for the years ahead.

There are four critical pillars which the games industry is leading for the wider metaverse, with dependencies and connections across each: technology, design, economics and virtual lives. From both an engineering and creative viewpoint they represent the core framework for both experiences and platform development, with capabilities having originated from gameplay requirements and an insight as to what players require in their respective game space. This is an important point – the games industry has practical rather than theoretical expertise.

The impact for the wider media and entertainment industry will be ongoing demand for specialist talent with expertise in these areas that has been forged in games and their development.

## Talent and expertise

### Technology

- 3D world development and rendering specialization
- Engine development (Unity/Unreal/O3DE) that will power the delivery of the metaverse experiences
- Global live digital service expertise
- Development of AR/VR hardware and applications
- Large scale cloud compute and network development

### Design

- Narrative and interaction design of open worlds
- Specialisation that scales from journeys in fully realized worlds through to individual character interaction
- Understanding of large-scale events with thousands of players
- Increasingly data-driven based on live service gaming

### Economics

- Development of in-game economies, marketplaces, currencies and digital assets that can be bought, sold and traded
- Closely aligned with real-world currencies, along with integration of crypto and blockchain "Web3" tech such as NFTs
- Specialisation in digital asset and service creation and management – revenue models based around forward bookings and future engagement

### Virtual Lives

- Development of long-term engagement with digital worlds
- Expertise in physical and digital product cross-over – via merchandising and retail channels
- Interaction between services and players, and between players and players
- AI-driven methodologies and ecosystem management

# The Gaming metaverse needs quality experiences and value

- The video games industry has made great strides in the last decade in reducing friction and accessibility hurdles for all gamers. The availability of high-quality game experiences without having to invest in expensive dedicated game hardware such as consoles or PCs, has resulted in the games industry achieving unprecedented levels of reach, mainly through mobile and increasingly cloud gaming.
- The reduction in friction has been complemented by subscription and “free to play” gaming operating models—reducing the upfront cost to access games dramatically. This has resulted in far higher engagement in games by novice consumers, and continued robust growth in overall audience to 3bn gamers, with an annual category revenue of $200bn
- The sophisticated monetization techniques in the F2P space have however courted controversy, particularly when games are used to camouflage aggressive and predatory activity. This has been aided by the deployment of NFTs or Crypto currency applications that purport to be games but hide underlying mechanisms to drive crypto mining or other speculative schemes. The ongoing growth of subscriptions, across all games platforms and as a rising percentage of revenue, is an important response across the industry—reducing high up-front costs and billing friction, and providing value through a broad library matters to more gamers than ever.

# Some games platforms are more metaverse friendly than others

- The metaverse will ultimately accelerate the transition of the games industry towards cloud gaming and a platform agnostic ecosystem, that will substantially grow the total addressable gamer market and reduce barriers to entry for all gamers. As that transition occurs, the focus for developers will need to be on platforms that support growth but are not hindered by proprietary gatekeepers.
- Consoles will play a limited part in metaverse experiences for the foreseeable future—and be entirely dependent on Sony or Microsoft's vision for what their metaverse is likely to be. In addition, the limited install base for this generation combined with onerous test and compliance, make consoles even in the best case a limited and expensive platform to support. Nintendo's Switch is a non-starter.
- VR is also likely to remain a noisy distraction for the games industry, although it remains an important platform for the metaverse as a whole. While Meta's Quest platform has a promising install base, designing expansive games experiences for VR remains challenging—with design limitations on motion and navigation limiting the appeal to many game designers. PSVR2 from Sony will not move the industry forward in meaningful way, but rather provide niche support to the limited install base of PS5. Even Sony's London Studio will no longer make PSVR games following many years of support for the platform.
- PC and mobile platforms remain the best-case scenario for support of games metaverse services and experiences in the near term—even considering platform controls on mobile app stores. Precise targeting of hardware support standards will still be required in the personal computing space– Mac remains underserved while the Intel/NVidia PC capability profile is becoming increasingly fragmented. If the metaverse is truly designed to widen accessibility to gamers, especially beyond core gamers, there will inevitably be a trade-off between the highest quality showcase experience and reach.

# Majors and platforms are watching and waiting

- The current build out of metaverse-centric technologies and experiences is seen by platform holders and major developers as broadly additive to their existing game business. The trend line is pointing in the right direction in terms of technology and developer interest—wider use of game engines, improvements in network architecture, along with the games industry capturing more of the airtime of the mainstream consumer and media consumption. It's a huge confidence boost for investment in cloud gaming and services, and is driving more talent into the games space.
- While the majors maybe watching closely, and in many cases undertaking due diligence and preliminary design work on new metaverse-centric experiences, the underlying theme is still one of "wait and see". There is no imperative from any of the majors to drive any major metaverse initiatives, preferring instead to collaborate behind the scenes at standards forums and other industry forums.
- Partly the "wait and see" approach is due to the post pandemic hangover that has affected operations at many first party studios. Current priority is to reduce slippage that has occurred mainly as a result of remote working—both in terms of game quality and missed ship dates. Majors are loathe to impose additional overhead on individual studios trying to catch up from a prolonged spell of disruption.
- We expect that major studios and platforms will initially begin development of their own proprietary metaverse architecture by unifying their own first party studios and franchises under a cohesive interoperability framework. This would involve improved unified player profiles, with experience, achievements, and digital items recognizable and useable between games, probably as part of add-ons and DLC. Whilst these would be small, incremental improvements, they would build a wider metaverse between franchises (and first party studios) without a heavy impact on existing game mechanics and design.

# Xbox and PlayStation on different paths

- While consoles will offer limited opportunities for Metaverse development in the near term, both Microsoft and Sony will continue to provide a disproportionate signalling effect to the games industry overall as to the benefits and opportunities represented by the metaverse. They are however companies with diverging views as to the future of gaming, and practical differences in their execution capabilities—we view Microsoft's vision of cloud gaming and device agnostic accessibility as closest to the promise of the gaming metaverse.
- Microsoft's approach to the metaverse forms multiple strands from enterprise through to consumer, with a recurring theme that cloud services will provide a bridge between metaverses (or in the case of enterprise, companies) based on Azure Cloud infrastructure. This is a key motivator for Metaverse adoption internally at Microsoft—that Azure can power the metaverse with games as a showcase deployment. Microsoft has a full technical stack, making it easier to scale, innovate, and deploy, and is a key differentiator to Sony, which has never managed to leverage its own cloud gaming acquisition, Gaikai. In addition Microsoft's huge first party studio expansion (particularly Bethesda and its planned Activision purchase) will be actively pursuing unifying (and cost reducing) strategies across Xbox, opening opportunities for creative and revenue synergies.
- Sony remains bound to its consumer electronics origins, with an ecosystem heavily indexed around the PS5 console, PS5 exclusive games, and add-on VR support via PSVR hardware. While Sony is increasing its game availability on Windows (primarily in response to supply difficulties for PS5 and to increase returns to studios) and with plans to compete in mobile, there remains a limited subscription and streaming offering (notably not premiering exclusive titles) and a lack of tight ecosystem integration for its first party studios. The more worrying aspect is the continued slow run rate for PS5—which is slowing investment across the group.

# Epic's platform battles and metaverse ambitions

- Epic, the developer of Fortnite and creator of the Unreal Game Engine, and already one of the world's most influential and closely watched games companies, has signalled its intent to create its own metaverse, and to directly compete against established platform players across all the games platforms. With large equity stakes from Tencent and Sony, and a combative and aggressive management team, our view is that Epic will be a force for positive change across the games industry and deliver an exciting vision for what the next generation of games experiences and wider metaverse will become.
- At the forefront of Epic's role across the industry is their stewardship of the Unreal Engine—arguably the single most important component of the tech stack for the development of games and 3D immersive worlds. A more powerful and all-purpose engine than their primary competitor, Unity, Epic is driving its deployment throughout the entertainment ecosystem, including delivering digital environments for Film and TV, and creating a global creative talent pool specialising in its tools and methodology. This bodes well for the development of the "Unreal" creator economy, including new game developers, to more readily support metaverse development based on shared middleware and compatible architectures, but it also combined with Epic's own game store—taking a much lower revenue share than competitor's Steam and Apple.
- Fortnite provides the showcase for Epic's GaaS (Game as a Service) strategy, built on Unreal, and one of the leading proto-metaverse experiences along with Roblox. In addition to Battle Royale, Fortnite is building a broad audience for non-gaming events, having acquired additional music services (BandCamp, Harmonix) to build out music experiences as a central attraction.
- It's Epic's ongoing legal dispute with Apple and its broad criticism of platform fees that signals where Epic expects, and wants, the direction of the games metaverse to head: heavily reduced platform fees and broader access for independent (as well as major) game developers as an incentive to use Unreal to build an interoperable and dynamic ecosystem that is not beholden to gatekeepers such as Apple, Google, Steam or Meta. Reducing platform fees from 30% to 12% is a bold initiative, combined with consumer appetite and trust for Fortnite (with in excess of 200m MAU) —we expect Epic to build an alluring destination for the early games metaverse in the coming years.

**Epic's Unreal Engine 5: 'Lumen in the Land of Nanite' demo**

**'Valley of the Ancient' demo**

# EA is in position to build a sports first game metaverse

FIFA 23, EA's latest entry, reported 10.3 million users in its first week post launch. From next year, the franchise will become EA Sports FC, as the long-standing relationship between EA Sports and FIFA is ending, reportedly as FIFA wanted more money for less exclusivity. Beyond hits to brand recognition, the breakup will not harm the franchise, as FIFA's connotations are mostly negative.

EA is extremely well-positioned to build out into broader immersive sports experiences, given its levels of partnerships, users, development and production capabilities, and existing assets. EA will undoubtedly be looking to build a 'sports metaverse', or series of sports metaverses. The repositioning of its flagship product FIFA to EA Sports FC is a good opportunity to begin this process.

Andrew Wilson, chairman and CEO of EA, hinted at these ambitions in the latest earnings call:

- "Foundational to our leadership is EA SPORTS, with breadth and depth of partnerships that allow us to continue delivering deeply immersive experiences to fuel long-term growth"
- "We have more than 200 million players engaged in our EA SPORTS games... we will continue growing these ecosystems to reach new fans, expand to new experiences and create more social connectivity to fuel the enjoyment of sport."
- "How do we disrupt the consumption of sport, how do we really think about sport from an interactive viewpoint? If you start in one of our games, but you are a deep sports fan, what other things might we be able to do with you with our partners that would fuel your sports fandom?"

EA has close relationships with Disney, as it is the key game licensee for Star Wars IP, and has recently done a deal for multiple Marvel console/PC games, starting with an Iron Man game. If the companies partner even more closely, or if Disney were to buy EA, then the combination of ESPN and EA's sports sim properties would create a sports metaverse juggernaut.

**Apple TV's Ted Lasso in FIFA 23**

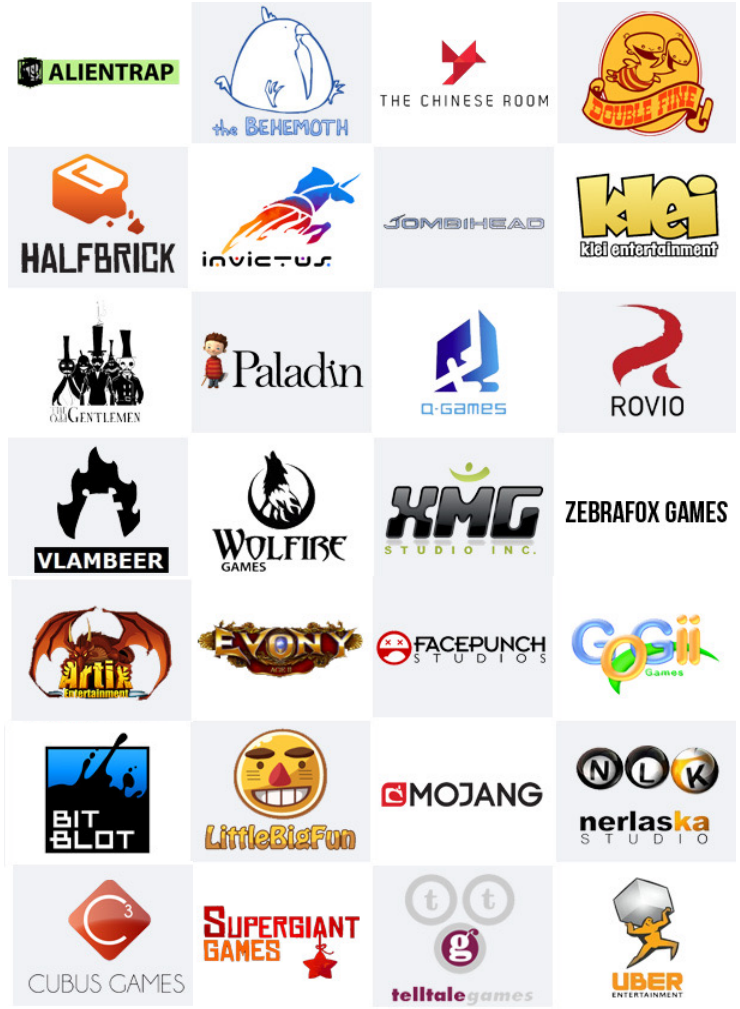
**FIFA Ultimate Team/Marvel collaboration**

# Lurking Giants: Meta, Amazon, Steam and Google

- While **Meta, Amazon, Google, and Steam** represent a core part of the gaming system that straddle a combination of technology platform and services as well as enormous retail providers, none of them have yet closed on an effective strategy that either fully plays to their own strengths nor provides an integrated games retail and services offering. They do continue to lurk on the periphery—and have the potential to provide meaningful impact on the metaverse should they decide to turn their attention to it. With economic headwinds expected to buffet their current operations thru 2023, an integrated games and metaverse offering is on the "watch list" as opposed to full-scale development (Meta excluded), but we expect that could accelerate with announcements in 2023 of their future plans.
- **Meta's** ambitious approach to the metaverse has yet to reap real dividends for the games industry—with the exception of the development of the Quest platform as the most popular VR headset on the planet. Should Meta provide a clear method to connect VR and non-VR games and experiences, be it mobile or PC based, as a showcase experience then the attraction for the games industry will be substantially positive—providing a clear path to millions of Meta's customers to experience games within Meta's own metaverse. 2023 will however be one of heavy weather for Meta as it navigates profound economic headwinds—potentially slowing its metaverse initiatives.
- **Amazon's** retail, subscription (Prime), streaming and cloud gaming (Luna), AWS infrastructure and wildly popular gamer community site Twitch, remain effectively siloed and have yet to provide a single gamer point of entry across the Amazon family. Metaverse initiatives appear a low priority—but Amazon's competitive response model will remain a threat, particularly as gaming remains the key entertainment vertical that Amazon hasn't yet conquered.
- The demise of streaming gaming service Stadia, which the industry widely expected, is symptomatic of **Google's** wider malaise around gaming – a lack of interest and focus in the space, and lack of integration across its own platforms: YouTube, Google Play, and Google Cloud services. As an example YouTube Pro and Google Play Pass have separate and independent offerings, that don't reward the gamer with a single unified proposition of being able to play and experience games. Much like Amazon's silos problem, Google isn't expected to make a meaningful metaverse play during 2023 with the possible expectation of a return to the VR space.
- **Steam,** the world's largest online game retailer, and part of Valve Corp, has the most integrated retail and distribution offering—comprising distribution to PC and Mac, but has also launched initiatives around cloud gaming, VR (Steam VR) and mobile gaming devices (Steam Deck). Given its full stack expertise, and large customer base, the potential for cross-game collaboration and metaverse experiences is high, but its overarching business model is threatened by a shift to subscription services. Combined with Valve CEO Gabe Newell's very public negative comments of existing metaverse initiatives—expect Steam to only enter the market when it has a compelling, and differentiated, experience tied to a subscription beating model.

# Indies remain the key: they need a friendly platform

- The ongoing challenge of an independent game developer is to launch on the right platform(s), acknowledging that each has its own limitations and controls, and will require marketing support to aid discovery and funnel paying customers. The current state of the games metaverse faces all those challenges—with major platforms leaning towards first party as their primary focus for metaverse initiatives, with limited paths for indies to explore and innovate.
- Where does this leave independent developers? In our view the most interesting game metaverse, with the most significant potential for organic growth and innovation, will be one dedicated to supporting independent game developers on PC and mobile with a "games first" operating model. There remains a wide-open space for this to occur—with the ability to attract independents with a light touch discovery model for both developers and games alike.
- At its core, an independent metaverse platform requires open and published standards to aid interoperability between games, and to allow gamers to build value that can be recognized across the games metaverse. The technology stack on which it is built will need to provide additional capabilities beyond existing GaaS Cloud gaming, but also new and exciting metaverse specific capabilities – such as games featuring thousands of players simultaneously.
- Indies will ultimately attract other indies when a platform works to the advantage of all: removing platform taxes will be helpful but not enough on its own. Having a turn-key open system that allows other independents to not only deploy easily, but utilize shared digital assets, characters, and environments without a proprietary platform will be a revolutionary moment –execution and scale will be key, without forcing a huge integration "hangover" on .




**Top independent game developers**

# Design ideas and implementation

- While the metaverse still has many years of development ahead of it, meaningful design and creative executions can already begin to shape what that future will look like—be that as tests or showcases, or as fully realized games experiences. The games space needs ongoing iteration and experimentation now—with new additions to existing games equally as important as all new titles.
- A priority will be the size and scale with which interoperability is allowed to exist within new and existing titles. This will require defined design parameters and a clear "stack rank" as to what will be delivered in what order. Clearly standardization of in-game currency and interoperable use of a class of digital assets (be it tools, weapons, clothing) would provide the widest possible application across as many games as possible. Eventually we expect that player characters will be able to seamless move between games— but concentrating on non-player asset integrations should come first.
- Large scale game events, with thousands of simultaneous players in a single game space will progress quickly beyond the impressive technical feats they represent. Determining the creative design of specific event quests, as well as highly reliable and regular game event "seasons", will bring enormous impact, particularly to existing franchises. Moving all players beyond the impressive wow factor and towards meaningful game play experiences can be expected in 2023.

**Interoperability of digital assets and currency between Apex Legends (left) and Fortnite (right)**

# The mainstreaming of the games industry will help the metaverse


**Marshmello convert in Fortnite**


**Lil Nas X concert in Roblox**

- The games industry is tracking to become a third pillar of the D2C entertainment space, alongside music and video, particularly as major platforms look to round out their content offerings to include more than one vertical. Netflix already has mobile games as part of their subscription, while Apple has the full stack of games, music and video services. We expect more will follow in the near term.
- Games as a third pillar will be broadly beneficial to the metaverse—especially the establishment of 3D Worlds and immersive experiences that combine opportunities for games as well as music and video in a share environment. Rather than keeping games at an arm's length from the older and more mature content verticals, .
- It is clear however that the games industry will have to do the heavy-lifting for this to occur—both creatively and technically. While the high barriers to entry for consumers that the games industry has enjoyed over the last three decades are falling away rapidly (dedicated proprietary hardware and high game prices)—the games industry needs to provide compelling and low friction experiences that make it easier for established verticals to access combined audiences, and to build a compelling revenue model. Not all in the games industry share this vision preferring to remain committed to a singular closed environment and ethos around a particular title. We expect those titles and developers will find their audiences and opportunities shrinking.
- Fortnite and Roblox are already the early stage proto-verses that are becoming mass entertainment touch points. They are however limited—by their creative implementation and closed border policies. There remains huge open space for the delivery of new games metaverses—but given the scale, complexity and investment required only a very few will be able to deliver the vision.

# Disclaimer

**About Enders Analysis** Enders Analysis is a research and advisory firm based in London. We specialise in media, entertainment, mobile and fixed telecoms, with a special focus on new technologies and media, covering all sides of the market, from consumers and leading companies to regulation. For more information go to www.endersanalysis.com or contact us at info@endersanalysis.com.