Adoption Trends

Immersive - Updated April 2021

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Introduction

IABM Adoption Trends reports annually track the adoption of specific emerging technologies within the broadcast and media sector. The purpose of these reports is to enable member companies to better understand the drivers of emerging technologies' adoption within customer organizations. This should provide member companies more tools to better address the challenges lying ahead, from new product development to marketing strategy. These reports contain a discussion on the state of adoption of the emerging technology in broadcast and media, as well as an analysis of significant customer deployments.

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Hover over these symbols throughout the report to uncover data analysis snippets and quotes from industry insiders

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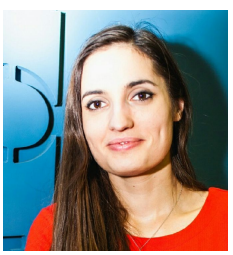
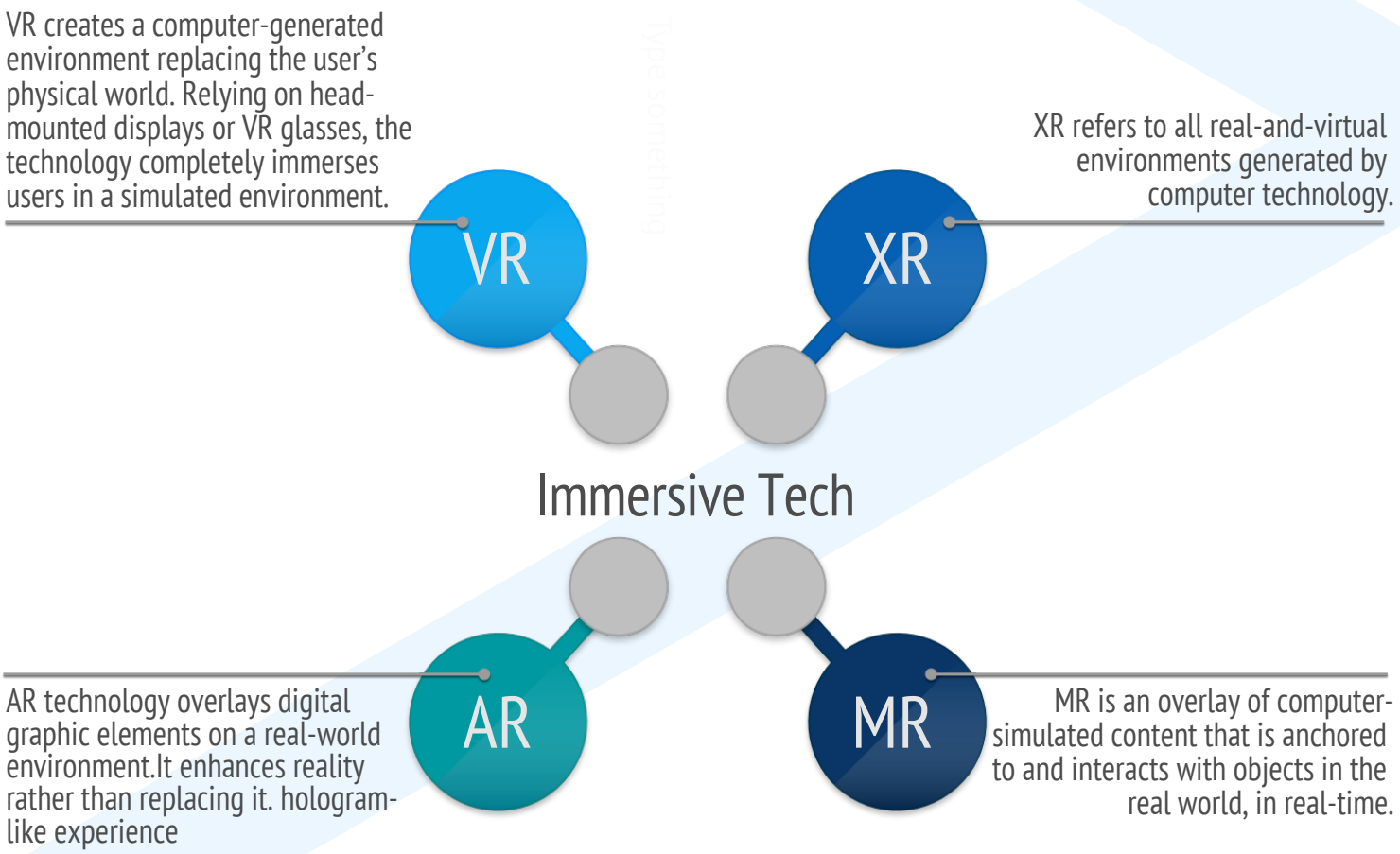


Olga Nevinchana, Senior Analyst

Immersive Tech Essentials

Immersive technology is an umbrella term that refers to technologies that create alternative environments by surrounding users with computer-generated images. It uses a simulated world to create the look and feel of being in a physical world. Immersive technologies cover virtual reality (VR), augmented reality (AR), extended reality (XR), and also mixed reality (MR).

Augmented Reality (AR) and **Virtual Reality (VR)** are two principal types of immersive technologies. These technologies share many of the same qualities.



VR Essentials

Virtual Reality (VR) is a simulated environment created by utilizing computer technology. It relies on headsets to achieve a full 360-degree view of a virtual world. More specifically, it relies on sending streams with complex processing into headsets.

Headsets can be divided into two main categories:

Simple holders for handheld devices like smartphones (usually require specialized apps to help the viewer with the VR experience)

Full-blown headsets that typically require a base station connection

VR adoption milestones

2014 ▶ 2016 ▶ 2018 ▶ 2020 ▶ 2021

Go to the interactive version of the report to see details of the timeline.

Drivers of adoption

Since VR relies on headsets, technology adoption has been driven not only by the media industry but also by consumers, few of whom were able to justify VR headsets' prices to themselves. Slow consumer adoption of VR equipment has led to a significant price decrease in VR headsets. The slow adoption of VR by broadcasters was largely driven by the complexities and high costs of VR content production and post.

Application areas

The main application area of VR technology in broadcasting remains sports, where VR could represent an alternative to watching a game in the stadium. Driven by the cancellations of live events during the COVID-19 pandemic, live VR events like festivals have also gained momentum.

AR Essentials

Augmented reality (AR) overlays digital information onto the physical world. Initially, AR relied on AR glasses, such as Microsoft HoloLens and Google Lens, but today AR experience is enabled by smartphones and tablets thanks to frameworks created by Apple and Google. As a result, there are now billions of devices in the market that are compatible with AR.

AR adoption milestones

2016 ▶ 2017 ▶ 2018 ▶ 2019 ▶ 2022

Go to the interactive version of the report to see details of the timeline.

Drivers of adoption

Since AR does not require expensive equipment, technology adoption has been largely driven by the broadcast and media industry and is less reliant on consumers. Companies like Facebook and Microsoft are developing technologies capable of recording actors and scenes in three dimensions to create AR content. For instance, Microsoft, with its Mixed Reality Capture Studios, is developing holographic production capability. Verizon has acquired Jaunt's AR technology – a company known for its VR productions – after Jaunt pivoted its business towards AR. Before the acquisition, Jaunt developed a production set that works with six cameras and can stream holograms live.

Application areas

One of the first broadcast areas of application of AR are sports and news. However, it is also often used in the production of scripted content such as documentaries, as well as educational content. AR can also be widely applied in advertising, allowing customers to make their purchase decisions based on a higher degree of realism.

Consumer Adoption

For years, VR has struggled to achieve widespread consumer adoption, mainly due to the high cost of headsets and lack of content, which is fragmented on a plethora of apps and devices.

One of the VR pioneers, Wave, moved away from VR in January 2021 in favor of distributing its virtual performances through non-immersive media channels to reach a broader audience, as VR technology remains a niche.

With the occurrence of the COVID-19 pandemic, many sporting events around the world have been canceled or postponed, including the 2020 Summer Games and Paralympics. However, with at least a third of the world's population being under some form of lockdown, the coronavirus has forced widespread behavioral change among consumers, which will likely translate into new opportunities for VR adoption.

Image source: wavexr.com

Two years ago, we pivoted out of VR into gaming and live streaming, as the VR industry didn't develop as quickly as we'd hoped. Artists need audiences to thrive, and we realized VR just wasn't there yet, and there was a bigger opportunity for artists outside headsets. Even though it doesn't fit our current business model, we've kept TheWaveVR app and servers running just because the community in there has made such inspiring stuff. Unfortunately, we built the user tools on top of Google Poly, which is shutting down. As much as we'd love to, we aren't able to spend the resources to build a new backend pipeline since we are already spread so thin trying to accomplish our current set of non-VR objectives.

Wave CEO & co-founder Adam Arrigo on Twitter, January 2021

Consumer Adoption

With the occurrence of the COVID-19 pandemic, many sporting events around the world have been canceled or postponed, including the 2020 Summer Games and Paralympics. However, with at least a third of the world's population being under some form of lockdown, the coronavirus has forced widespread behavioral change among consumers, which will likely translate into new opportunities for VR adoption.

Consumer Adoption Timeline - VR

2016

Dedicated consumer VR headsets arrive on the market.

2017-2018

Consumer interest in VR waned between 2017 and 2018, which has led to a significant decrease in prices of the headsets for consumers. Today, they are only about half of the cost compared to their launch year of 2016, while stand-alone models no longer require a high-powered PC to operate.

2019

Consumer adoption of VR equipment was slower than anticipated in 2019. Deloitte's "Digital Media Trends Survey" found out that only 14% of all respondents owned a VR headset in 2019.

2020

The occurrence of the pandemic that resulted in lockdown in 2020 forced consumers to stay at home. This made them turn to immersive experiences at an unprecedented rate, presenting a unique opportunity for VR adoption.

In October, Facebook launched Oculus Quest 2 – the second generation of Oculus Quest. To accelerate mass consumer adoption of VR equipment, Facebook offered Oculus Quest 2 at the price of the first-generation model while decreasing the price of the original model by -25%.

2021

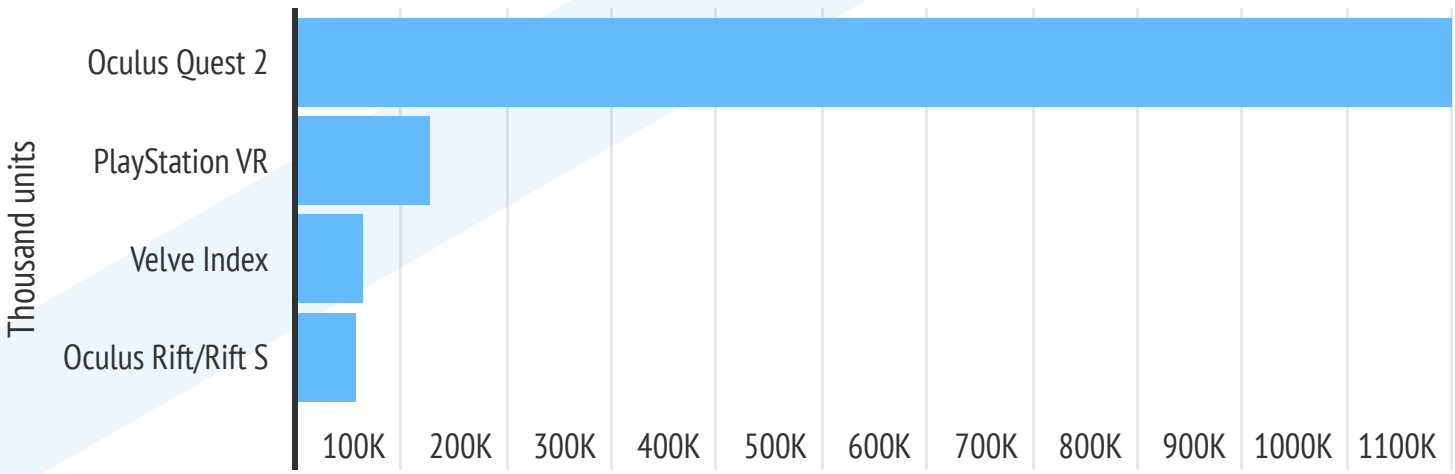
Oculus Rift S is to be discontinued to focus entirely on the standalone Quest 2.

Consumer Adoption

Initially, most users of the technology relied on headsets connectable to a smartphone – such as the Samsung Gear VR and Google Daydream. However, there is a growing trend for the adoption of standalone VR headsets.

In line with this trend, the former leader of HTC Corp. created a standalone VR headset called XRSpace equipped with 5G, launched in its home market Taiwan in July, and arrived in Europe in December 2020. It is a mobile VR headset equipped with 5G wireless networking and over three hours of battery life. XRSpace's headset uses cameras to pick up hand gestures and track the wearer's motions, and it creates a lifelike avatar from a selfie. Later it will let users perform real-world actions like shaking hands or naturally shooting a basketball, according to Bloomberg. To build its virtual world, XRSpace has been designing public and private spaces for users to inhabit and even creating virtual stadiums where sports fans can gather for shared viewing of a ballgame, which could be used, for instance, for watching the English Premier League.

In October 2020, Facebook launched the second model of its VR headset Oculus Quest – a hybrid standalone and PC-tethered headset. To accelerate consumer adoption of the headset, Facebook decreased the price of the first Oculus Quest model by -25% and set the price of the new model at the level of the previous generation, leading to sales of over a million units in the first quarter since launch.



Source: SuperData, a Nielsen company, 2021

Consumer Adoption

Facebook's VR developments

2014

Facebook acquires startup Oculus VR

In 2014, many industry experts embraced Facebook's US$2 billion acquisition of virtual reality headset manufacturer Oculus Rift as a market-defining moment for VR technology.

2017

Oculus Go launched

At the end of the year, Facebook launched a new US$200 headset, Oculus Go, to gain control of the end-to-end VR experience. To boost the availability of VR content, Facebook created the Jurassic World film in partnership with Universal and Felix & Paul Studios and marketed it as new content for the Oculus Rift device. However, because of weak consumer demand, Facebook had to cut the price of the Oculus Rift twice in 2017, bringing it down to about US$399, which was US$400 less than when it was first launched.

2019

Oculus Quest and Rift S launched

In March 2019, Facebook launched the Quest (a newer version of Oculus Go), an all-in-one VR system with 6 Degrees of Freedom (DoF) priced at US$399 and is set up through a smartphone app. In addition to the Quest, Facebook launched the Rift S – the next version of the Oculus Rift – at the end of May 2019, priced at US$399. Compared to the Quest, the Rift S is intended for use with a PC, and it uses wires to connect to a PC powering the virtual reality experience.

2020

Oculus Quest 2 launched

In October 2020, Facebook launched a new version of its Oculus Quest VR headset, featuring streaming capability and cinematic 3D positional audio and a faster image refresh rate for more realistic content.

2021

Facebook extends Oculus Quest's capabilities

Facebook is working on shipping new VR content and new hardware capabilities to its VR headsets. The new hardware will be compatible with the existing platform. To focus on the development of the standalone headset Oculus Quest, Facebook is to discontinue tethered Oculus Rift S in 2021.

Consumer Adoption

The coronavirus outbreak has triggered interest in shared remote experiences. Consumers went online massively during the lockdown period. On 22 April 2020, global video streaming traffic increased by 26%, and gaming traffic increased by 71% compared with a typical day pre-pandemic, according to Verizon. At the same time, the entertainment industry that depends on live events, including the sports and live music industries, has seen unprecedented revenue streams' decline. This mismatch of peak consumer demand for content and limitations for content creators provides conditions that can boost VR as an alternative format.

Travis Scott's VR concert in Fortnite

A Houston-based rap artist, Travis Scott, held a concert within the virtual world of the game Fortnite. The show had a massive audience - it garnered 27.7 million unique visitors and was viewed over 45 million times, setting a single-event attendance record for Fortnite, according to Reuters.

Source: BBC.com

Block by Blockwest VR music festival in Minecraft

Likewise, Minecraft held Block by Blockwest, a virtual music festival this spring, featuring Massive Attack among other artists. Because of the unexpectedly high attendance of 100,000 users crashing the servers, the event had to be rescheduled. The VR event has attracted 134k streaming viewers and 5.1k players in the game.

Source: YouTube

English Premier League

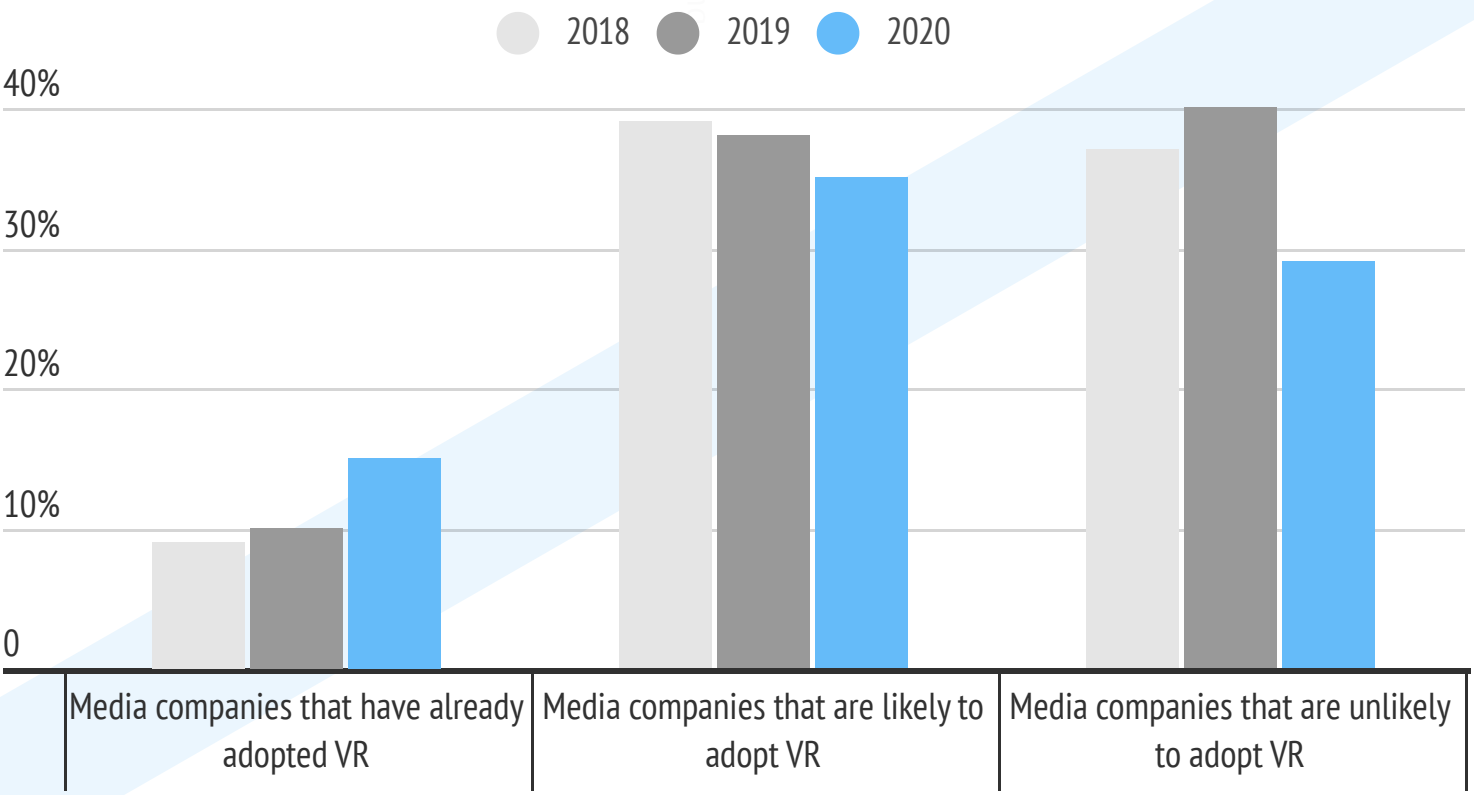
Shared watching services from BT Sport & Sky

With the return of Premier League behind closed doors in June 2020, Sky Sports and BT Sport launched shared watching services for second screens. Sky's Fanzone is available on the Sky Sports website and as an app while BT's Watch Together is available on the BT Sports app (through iOS devices only). Both services enable viewers to interact with each other while watching live matches. This area, along with the initiatives launched by broadcasters to partner with new media distribution outlets, should grow as well.

VR Adoption Tracker

% of companies that have adopted it

The IABM VR Adoption Tracker shows that VR adoption accelerated significantly in 2020 compared to the previous year. The accelerated adoption of VR technology is primarily explained by those end-users who already had such an intention in our previous survey. Now, the share of end-users who intend to adopt VR technology has decreased slightly but remained at a relatively high level, signaling that VR will continue to be adopted by the broadcast and media industry in the coming years.



Source: IABM

VR Adoption Tracker

One of the main reasons behind the low adoption of VR is the lack of certainty around the business models supporting it. Most broadcasters still rely on advertising rather than subscription fees-based revenue. Regardless of the negative impact of the Covid-19 pandemic on advertising revenue, Facebook generated 98% of its revenue from online ads in 2020. However, in the new circumstances created by the COVID-19 outbreak, consumer adoption of VR technology has started to accelerate. Our VR Adoption Tracker also demonstrates that the level of uncertainty about the business model among end-users decreased in 2020.

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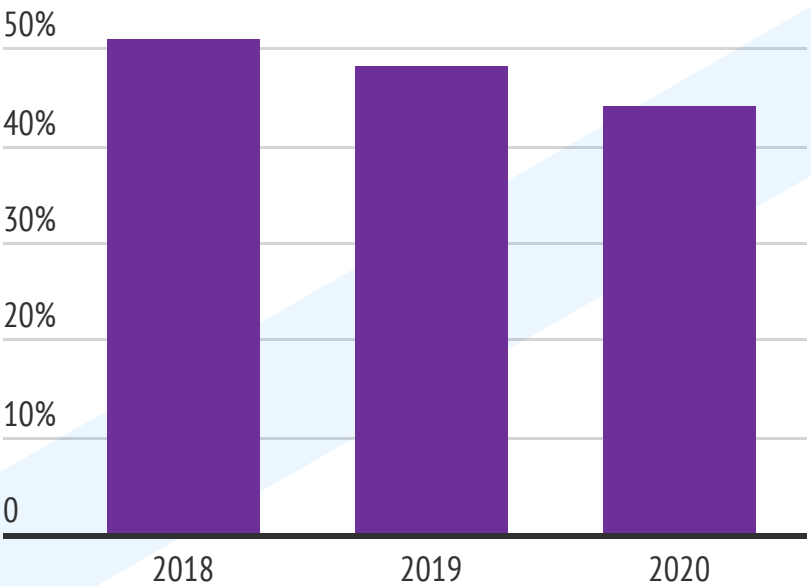
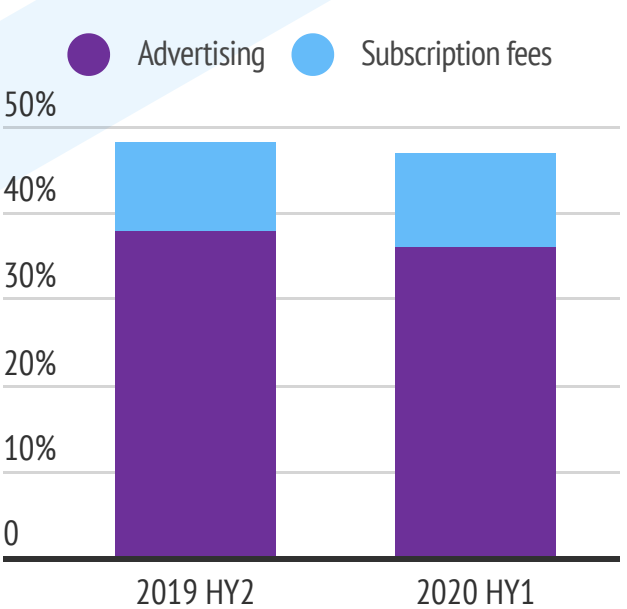
% of companies not planning/ do not know how to monetize VR



Preferred business models for VR



Source: IABM

VR Adoption Tracker

The timeline below illustrates some of the milestones of VR technology.

2014
The Landmark Acquisition
Facebook acquires Oculus VR for US$2bn and launches Oculus Rift headset (US$799)

2015
Investment Continues
Disney leads US$65mn fundraising round for Jaunt. NextVR raising similar level of investment

2016
Investment Peaks
Broadcasters like Sky and NBC prop up investment in VR. NextVR funding surpasses 100$m

2017
Adoption Worries
Facebook cuts the price of the Oculus Rift twice and launches Oculus Go to incentivize adoption

2018
Investment Slumps
Jaunt layoffs a significant number of employees and refocuses on AR. NextVR fails to raise funding

2019
Reality Check
NextVR undergoes 40% workforce reduction. VC investment plummets to 80% of 2016 level

2019/20
Investment Resumes
In September 2019, Verizon acquired Jaunt's AR technology.Apple acquires NextVR for $100 million. Facebook launches Oculus Quest 2 – a lighter version of the device, targeting the mass market.

Source: IABM

Market Developments

Producing and Managing Immersive Content

VR production cost is one of the major issues faced by industry players today. It consists of different variables like business costs, amount of work, and value created. VR content production is notably complex and differs substantially from traditional television production – from both a storytelling and a technical perspective. For example, in VR productions, every point of a studio is in view, requiring directors to exit the room. VR production should take into account many factors, such as the size of the audience, distribution platform, level of interactivity (the amount of control given to a user), different user types. The challenge with UX is to find a compromise between spending extra working hours and delivering a comfortable user experience to a viewer.

In sports production, things are even more complicated; VR cameras need to be as close to the game as possible as they do not zoom. The degree of complexity is often dependent on the type of sport covered. For example, large field sports such as baseball and football present more challenges. In its coverage of the NBA, NextVR has not been able to add as many cameras as it would have liked to due to safety concerns.

On the positive side, with the extensive pre-production and shooting, **limited post-production is required,** saving costs. In **post-production**, a 360-degree video needs to be stitched together before editing. Post-production in VR has cost premiums more than three-fold versus existing UHD productions.

AR use cases are mostly focused on live sports, enriching viewers' experience with data, and news, particularly coverage of major events such as the US presidential elections. **VR use cases** are mostly focused on immersive event experiences – such as live sports, music, and cinema, among others.

Market Developments

Producing and Managing Immersive Content

VR in Live Sports

In Sports, VR initiatives were mainly deployed by US broadcasters, such as FOX Sports, Turner Sports, CBS Sports, and NBC Sports. Social distancing restrictions have accelerated the need for shared viewing experiences and replicating the in-stadium experience.

March 2020

28 broadcasters covered the MotoGP™ Virtual Race worldwide.

April 2020

The 2020 NASCAR season was canceled due to the COVID-19 pandemic and replaced with the virtual event. The first race at Homestead-Miami Speedway was the most-watched esports event in US television history, as well as the most-watched sports telecast on cable television that day.

November 2020

FOX Sports and Facebook partnered to produce three Premier Boxing Champions matches in VR. Aside from being able to watch matches, fans could socialize and interact with other viewers in a VR lobby.

January 2021

NASCAR created an interactive fan area at the racetracks with the implementation of VR. iRacing is compatible with the most popular VR headsets, including models from Oculus and HTC. VR headsets literally put you in the driver's seat and provide an incredibly immersive online racing experience. The races were simulcast on FOX and FS1 cable channels and streamed via Fox Sports App.

February 2021

NFL's SuperBowl free VR broadcast was covered by CBS Sports, providing a shared viewing experience via Oculus Quest, Oculus Rift, and all SteamVR-compatible (e.g. HTC Vive) headsets via Bigscreen app.

Market Developments

Producing and Managing Immersive Content

VR in Festivals

March 2020

A virtual "Eurovision Home Concerts" event replaced the Eurovision Song Contest, which was canceled due to the Covid-19 pandemic.

28 January – 3 February 2021

the 44th Sundance Film Festival was hosted online and in-person in 20 cities across the United States. It reached more than 500,000 views of the film program, 2.7 times more than the usual 11-day festival hosted in Utah, despite the shorter duration and with fewer feature films than a typical festival – 73 vs. 120 features – according to the Sundance Institute. An immersive WebXR experience, developed with the creative studio Active Theory, includes the Film Party room, where participants can chat with nearby attendees. Attendees were able to watch five special features in the Cinema House, which aims to replicate a real theater experience.

January 2021

Sony, in partnership with Verizon, launched Sony Immersive Music Studios. During the first virtual concert that took place on 11 January, Madison Beer's virtual avatar stood in Sony Hall, New York, while the artist herself stood in a studio in her VR suit. Viewers were able to watch the event using PlayStation VR and Oculus VR headsets, as well as an immersive 2D experience broadly available on streaming music video channels.

Market Developments

Producing and Managing Immersive Content

AR in live sports

Sports broadcasters have been increasingly investing in AR-powered virtual sets, often using specialized solutions that made use of Unreal Engine to engage with their fans. IABM research reported that this investment gained traction in 2018 in concurrence with major sporting events such as the World Cup. Therefore, this was a strategic area of investment well before the pandemic hit though COVID-19 has incentivized sports broadcasters to look at AR technology more and in different ways.

YLE, Finland's national public service broadcaster, teleported its 2018 Winter Olympics commentators back to Helsinki for studio debriefs, using technology from Keho Interactive with rendering through the Unreal Engine. Broadcast Solutions GmbH, ZD's partner in Finland, brought an interview to the Finnish audience of Streamteam /Telia from 200km awav.

Image source: NewscastStudio

The major area of investment growth in immersive remains AR graphics, which are being increasingly used in conjunction with sports data and relied on to augment the sports experience.

BT Sport launched its new Match Day Experience on the BT Sport app, delivered in collaboration with EE's new 5G network, to overlay AR features such as match statistics during its EPL coverage. This experience was only available for 5G subscribers of mobile operator EE using iPhone 12. The deployment featured 360-degree experiences for fans to leverage the cameras in the stadium for a virtual visit.

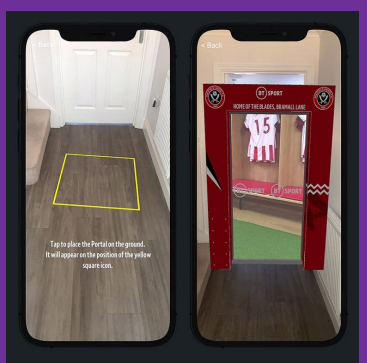


Image source: BT Sport

Market Developments

Producing and Managing Immersive Content

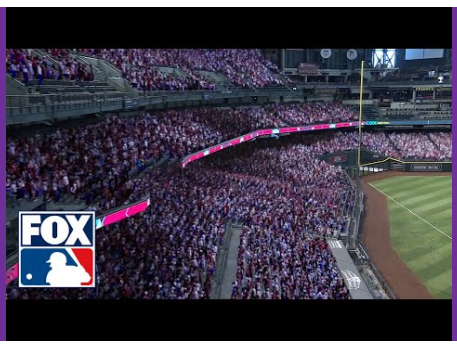
With the return of live sports without viewers due to social distancing measures brought by the pandemic, an increasing focus has been placed on how to replicate the atmosphere of a match-going crowd. A number of top US broadcasters, including ESPN, NBC Sports, CBS, and Turner Sports, used VR and AR technologies to emulate the live match experiencefor viewers when games occurred behind closed doors. Fox Sports used AR to include virtual fans in stadiums.

OZ Sports has partnered with visual content studio RVX Productions to enhance the viewing experience of sports events during social distancing restrictions due to COVID-19. The new solution designed for rights-holders of leagues is integrated into the wider OZ Connected Stadium.
Viewers can be dynamically added to live broadcasts, having a number of personalization options. Fans can participate either audio-only or with immersive visual. There is a possibility for fans to add live audio to the broadcast via the app. The servers aggregate all fan audio using low-latency time synchronization and AI algorithms to manage volume levels to prevent overpowering of the audio stream.

Image source:

Spanish soccer league La Liga collaborated with Norwegian firm Vizrt to enhance viewers' experience of live broadcasts of the games behind closed doors when Spanish professional football returned in June 2020. Empty stadiums have been enhanced with virtual fans and FIFA crowd noise, pre-recorded from previous La Liga games; stands in La Liga stadiums were 'virtualized' and offered scale images of seated fans wearing the colors of the home team. This virtual set-up can be transformed into a canvas that shows institutional messages and other offerings at the end of the game.

Belgian tech startup MoodMe – a part of the Qatar SportsTech (QST) program – is to provide an immersive technology to Qatar's 2022 FIFA World Cup, relying on AI and AR. Using facial recognition, the solution analyzes emotions, gender, and age to personalize their experiences in real-time with the AR engine.



Producing and Managing Immersive Content

AR in news

With the return of live sports without viewers due to social distancing measures brought by the pandemic, an increasing focus has been placed on how to replicate the atmosphere of a match-going crowd. A number of top US broadcasters, including ESPN, NBC Sports, CBS, and Turner Sports, used VR and AR technologies to emulate the live match experiencefor viewers when games occurred behind closed doors. Fox Sports used AR to include virtual fans in stadiums.

The US presidential elections

Many broadcasters around the world, including CNN, NBC, Fox, BBC, Sky, Al Jazeera, Al Arabiya, TV 2 Norway, NHK (Japan Broadcasting Corporation), and Mediacorp, among others, made use of AR technology to cover the US presidential elections 2020. For instance, BBC News leveraged Arti's cloud-based augmented reality system to quickly deploy the 3D elements in their US elections coverage broadcast, like AR maps and charts. This allowed BBC News to turn additional studio space into an AR canvas and to keep the social distancing of talent while allowing data feeds to be connected to the system via a standard API. Camera tracking through the cloud-based software interface was enabled by a QR code and could output via SDI or NDI. Another example of presidential election coverage using AR technology is CBS News, which built a new set in the Viacom CBS headquarters in New York's Times Square for the election night. For the same event, Telemundo transformed their second-floor newsroom into a broadcast-ready set, including a three-part anchor desk fronted by LED displays. AR technology and immersive environments were heavily used for the US election night coverage by many Arabic broadcasters, going beyond the studio environment. For instance, MBC Group's Al Arabiya used

Producing and Managing Immersive Content

the outside space near the Media City building in Dubai to create a huge virtual replica of the National Mall from Washington, DC.

French municipal elections

In March-June 2020, French broadcaster TF1 took advantage of the Future Group's mixed-reality platform Pixotope to cover the French municipal elections. The augmented digital space was produced without a green screen in quite a small room, while the join between two scenes was generated by Pixotope – technology based on the Unreal game engine – using matching 3D digital objects and highly accurate camera tracking.

The Beirut Explosion

Apart from the elections, AR technology has been used in non-political stories, like the massive explosion in Beirut in August 2020. At least two networks – Al Arabiya and Alghad TV – created immersive mixed reality stories to explain the science behind the incident in a clear and engaging manner.

The COVID-19 pandemic

The coronavirus outbreak has pushed broadcasters to adopt AR technology sooner. It was often used for Covid-19 visual explainers.

For instance, Chilean broadcaster Canal 13 used AR to help highlight key facts about the coronavirus. The network had been planning to roll out Vizrt powered AR technology for the country's upcoming April 2021 elections, but the growing coronavirus outbreak pushed the broadcaster to adopt this technology sooner.

Another example is Al Jazeera, which produced a coronavirus immersive mixed

Producing and Managing Immersive Content

reality explainer using Epic Games' Unreal Engine with 3D assets from Quixel, an Epic Games partner. The segment was produced in Autodesk 3ds Max.

These use cases highlight how immersive technologies are making inroads into the broadcast and media industry, with VR being largely used in live events such as sports, as well as music and film festivals, while AR use cases are mainly focused on overlaying graphical elements to enrich video with data and to explain concepts in a clear manner.

Unlike AR, VR technology lacks a clear business model to back it as most deployments rely on the free broadcast to viewers through apps. IABM data shows that most end-users still do not know how to monetize VR use cases.

Market Developments

Distributing Immersive Content

From a storytelling perspective, VR content needs to address various issues, such as viewers' potential motion sickness during the experience, as well as technology, production techniques, and business models justifying the expense of the technology.

Start-ups NextVR and Jaunt VR used to be leading DTC VR technology specialists in broadcasting until Verizon's acquisition of Jaunt's AR technology offering in September 2019, followed by Apple's acquisition of NextVR later in May 2020.

In June 2020, Verizon launched Verizon Media Immersive, a new extended reality (XR) platform for creating immersive advertising and branded content with an emphasis on next-generation 5G experiences.

NextVR offered viewers free on-demand VR game highlights:

- **2017-2019** — In partnership with NBA Digital, NBA and Turner Sports provided highlights of NBA Finals via YouTube TV.
- **May-June 2019** — NextVR partnered with the NHL and Disney Streaming Services to provide viewers free on-demand VR game highlights of the 2019 Stanley Cup® Final.
- **July 2019** — In partnership with Liverpool FC, NextVR offered US fans a VR experience when UEFA Champions League winners Liverpool FC faced off against the Sporting Club of Portugal.

Market Developments

Distributing Immersive Content

Year	Details
August 2020	Sky News Arabia created an AR explainer that showcased how travel may change due to the pandemic. The segment was created using Zero Density's Reality platform with rendering from Unreal Engine.
May 2020	The Grand Final of the Philips Innovation Award in the Netherlands went virtual and was broadcasted live from a studio using AR technology. A complete virtual set was designed in partnership with NEP Netherlands to keep running events during the social distancing restrictions. The event was filmed at Studio4 in Hilversum, and virtual design was handled by NEP and Zero Density's Reality platform, utilizing the Unreal Engine for rendering.
May 2020	Using Unreal Engine to provide photorealistic rendering, Arabic broadcaster Alghad TV created an immersive AR virtual submarine explainer
May 2020	Apple Inc. confirmed its acquisition of NextVR, a technology startup and a pioneer in broadcasting sports and entertainment.
Late 2019	NextVR and the NBA extended their agreement.
2019	Weavr, an immersive platform, has been streaming sports and esports since last year, assisting the European Sports League (ESL). Viewers can watch a game of Dota 2, with a war table in front of them showing heroes prowling across the map and a massive screen above that showed the gameplay, including game stats.
December 2018	The production company MelodyVR announced its first own live VR broadcast focusing on music. The company streamed LiamPayne's performance from a secret location that fans watched via the MelodyVR app. The company might be focusing on live musical content in the future.
2018	During the 2018 FIFA World Cup in Russia, Fox Sports & LiveLike provided four matches in VR through Oculus Go and Gear VR headsets.

Market Developments

Distributing Immersive Content

Year	Details
2018	NextVR covered the International Champions Cup, a summer football tournament, in VR.
July 2018	Copa90 announced a new partnership with NextVR. The International Champions Cup match between AC Milan and Manchester United was the first virtual reality live broadcast. NextVR also had a dedicated Copa90 channel through its app, debuting with behind-the-scene access to US soccer star Christian Pulisic. However, later in 2018, NextVR announced that it had laid off 50% of its staff after failing to raise a Serie C funding round.
2018	NBC covered 50 hours of the Pyeongchang Winter Olympics in VR. As opposed to the Rio experience, NBC broadcast some of the VR content live and supported more VR consumer devices, including Google Daydream and Windows Mixed Reality headsets. NBC has relied on Intel True VR technology to produce an interactive 360-degree VR experience - accessible through the NBC Sports VR app. This has given viewers the possibility to modify their vantage points, interact with games' stats, and access the natural sound captured by each camera.
2018	Intel and Turner Sports returned for the 2018-2019 NBA season with virtual reality broadcasts via NBA on the TNT VR app. It is available for Oculus Go and Samsung Gear VR headsets, bringing fans onto the virtual set of Turner Sports with access to replays, live game action, and highlights.
2018	During the 2018 Olympic Games in Pyeongchang, Intel's True VR provided the first-ever live virtual reality broadcast. Intel's True VR technology was expected to be used to create immersive experiences for some sports and venues during the 2020 Summer Olympic games, including the opening and closing ceremonies, track and field, gymnastics, boxing, and beach volleyball. The content was to be distributed by rights-holding broadcasters.
2018	Magic Leap entered a partnership with AT&T. Later in 2019, it raised US$280 million from NTT Docomo, the Japanese cellphone service provider. The main goal of the deal for Magic Leap is to start approaching 5G and for Docomo to provide its customers' immersive media and experimental spatial computing.

Market Developments

Distributing Immersive Content

Year	Details
2018	Sky expanded its VR platform Sky VR Studio with the ambition of building an "immersive content library" through a partnership with the VR content producer Jaunt, signed in January 2018.
2018	The BBC announced it would broadcast its first VR-driven TV show, Watch This Space, produced by its own in-house VR studio founded in 2017.
2018	For the 2018 World Cup, the BBC offered the possibility to watch matches in VR via an app – a total of 400,000 people downloaded the BBC World Cup VR app.
March 2018	In Spain, Vodafone Espana showed to a limited audience its ability to stream VR by broadcasting one program of its YouTube networks, called YU, through its 4G network.
Feb 2018	Finnish broadcaster uses AR to teleport commentators to Helsinki
2017	Deutsche Telekom launched The Magenta Musik 360, a platform that enables VR viewing of live shows.
2017	The partnership between NBA Digital and NextVR marked the first time VR technology was monetized in broadcasting. The two organizations partnered to deliver a game a week in VR, which was charged to consumers through a subscription model (the NBA League Pass).
2017	Fox decided to collaborate with LiveLike on a "social" VR experience for the CONCACAF Gold Cup, where viewers were able to communicate with each other through the Fox Sports app while watching the games.
2016	NBC provided 85 hours of the 2016 Rio Summer Games' content in VR - for the first time ever in a Summer Games broadcast. Viewers could watch the VR broadcasts through the NBC Sports app using only the Samsung Gear VR headset together with a Samsung Galaxy mobile phone.

Market Developments

Distributing Immersive Content

Year	Details
Feb 2016	Fox Sports and NextVR signed a five-year deal to develop virtual reality offerings for sporting events broadcast on Fox Sports. The day after the agreement was signed, the partnership produced and distributed the Daytona 500 NASCAR race.