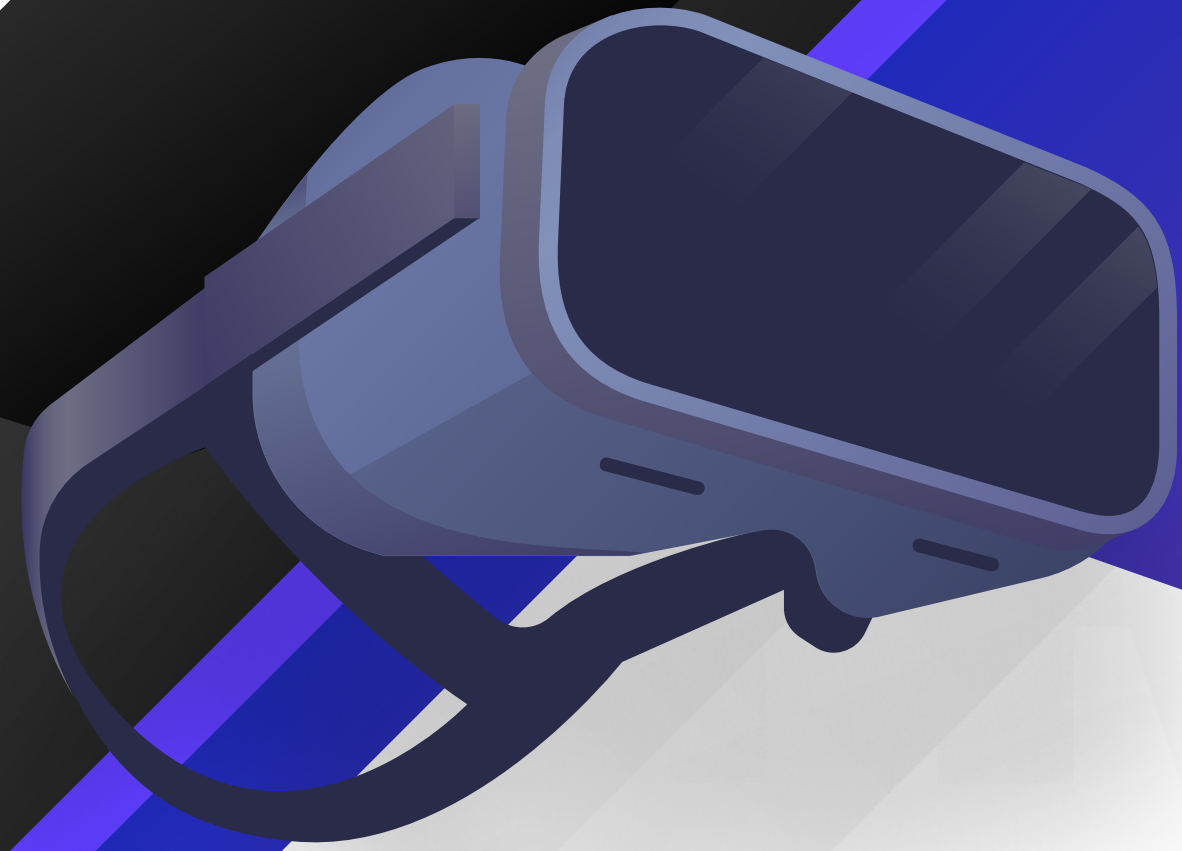




INTRODUCTION

Big Tech's analysis helps to understand the current state of the immersive market and its further development. The primary focus is to analyze the **Big Five - Facebook, Microsoft, Google, Apple, and Amazon**. Still, it won't suffice without insights about major headsets manufactures, leading immersive software platforms developers, haptic-suited manufacturers. Tech Giants leverage the experience immersive technologies provide and build business value with AR/VR/XR. According to [BuyShares](#), the global AR, VR and MR market is expected to continue growing and hit \$124.4 billion worth by 2023, a 305% increase in two years. Even though the market trend is optimistic, there are still challenges. The market will grow exponentially when issues with 5G enrollment and headsets experiences on the go are solved. Now high-end virtual reality headsets tend to be non-tethered. Widespread 5G will allow people to enjoy better immersive experiences in cheaper headsets and devices. Dive in to learn more about how key players in the immersive technology market face challenges and plan to grow in the recent future.



FACEBOOK

The date they started	Number of employees	Key market events	Financial Data
2014, the date when FB acquired Oculus	10,000 people	Facebook Connect	Oculus revenue for 2020 - up to \$885 million in the last three month of 2020

'VR had a tremendous year. Oculus Quest 2 is our fastest-growing VR headset, thanks to the convergence of leading VR form factors and the content built by our developer community. Quest 2 surpassed the original Quest’s monthly active people in less than seven weeks, and more people are using it to stay fit, play games with friends, and collaborate for work. And we are continuing to diversify our user base, with more women using Quest 2 than any of our previous headsets'. tech.fb.com

'We also implemented some product changes that were key in giving people a better, safer experience in VR — starting with introducing a single way to log into Oculus using your Facebook account, which makes it easier for them to find, connect, and play with friends in VR. This allows us to deliver multiplayer and social experiences and stronger privacy and security measures. In 2021, we’ll offer more options and control over how to show up in VR, including persona and privacy controls.' tech.fb.com

'The ecosystem around AR technologies. The Spark AR creator platform — only a year after opening on Instagram — has seen over 400K creators publish AR effects. The plan to expand Spark AR for expression and connection in social settings like real-time video calling, or making more informed purchases. We’re pushing hard on the underpinnings like location and augmenting in the world to help define the path to true AR glasses, while setting clear privacy expectations.'

Key People

Mark Zuckerberg, CEO;
Andrew Bosworth, VP, FB RL;
Maria Fernandez Guajardo, Director, Work Products, FB RL;
Michael Abrash, Chief Scientist, FBRL;
Meaghan Fitzgerald, Head of Product Marketing, FB RL;
Michael Verdu, VP of content, FB RL;
Mike Schroepfer, CTO, B RL.

Key Products

Oculus Quest line and **Oculus Rift** lines;

Social - **Facebook Horizon**, meaningful social presence in virtual workspaces;

The Spark AR creator platform, the ecosystem around AR technologies;

MICROSOFT

The date they started

2016

Number of employees

55,000 in product research & development company-wise

Key market events

[Microsoft Ignite](#)

Financial Data

the global AR, VR and mixed reality (MR) market is expected to continue growing and hit a \$124.4 billion value by 2023, a 305% increase in two years.

'You can actually feel like you're in the same place with someone sharing content, or you can teleport from different mixed reality devices and be present with people even when you're not physically together.'

'More and more we are building value in our intelligent cloud, which is Azure,' Kipman said. 'In these collaborative experiences, the content is not inside my device or inside my application. The holographic content is in the cloud, and I just need the special lenses that allow me to see it.'



Key People

- Satya Nadella, CEO
- Alex Kipman, the lead developer of the Microsoft HoloLens;
- Jeremy Chapman, Director;
- Simon Skaria. Product Executive;
- Dorrene Brown, Senior Program Manager,
- Nishant Thacker, Senior Technical Product Manager;
- Greg Sullivan, Director of mixed reality

Key Products

- Hololens line, Microsoft Mesh, participated in collaboration with Valve in the production of HP Reverb G2;
- AltspaceVR, an app for live virtual events;
- Microsoft Azure;
- Microsoft Teams;
- Microsoft Dynamics 365.
- Microsoft Mesh app, collaboration sessions and expressive avatars.

APPLE

The date they started

2017, when Apple added AR to phones

Key market events

WWDC developer conference, Apple unveiled ARKit to let developers make augmented reality apps for iPhones and iPads. It also said it was working with Valve to bring the Steam VR platform to its desktop Macs.

Apple acquired NextVR, a company recording concerts and games in VR.

Apple Chief Executive Officer Tim Cook has said both virtual and augmented reality have potential, but AR is more significant opportunity.



Key People

Tim Cook, CEO;
Sterling Crispin, Technology prototyping researcher;
Jeff Norris, Augmented reality expert

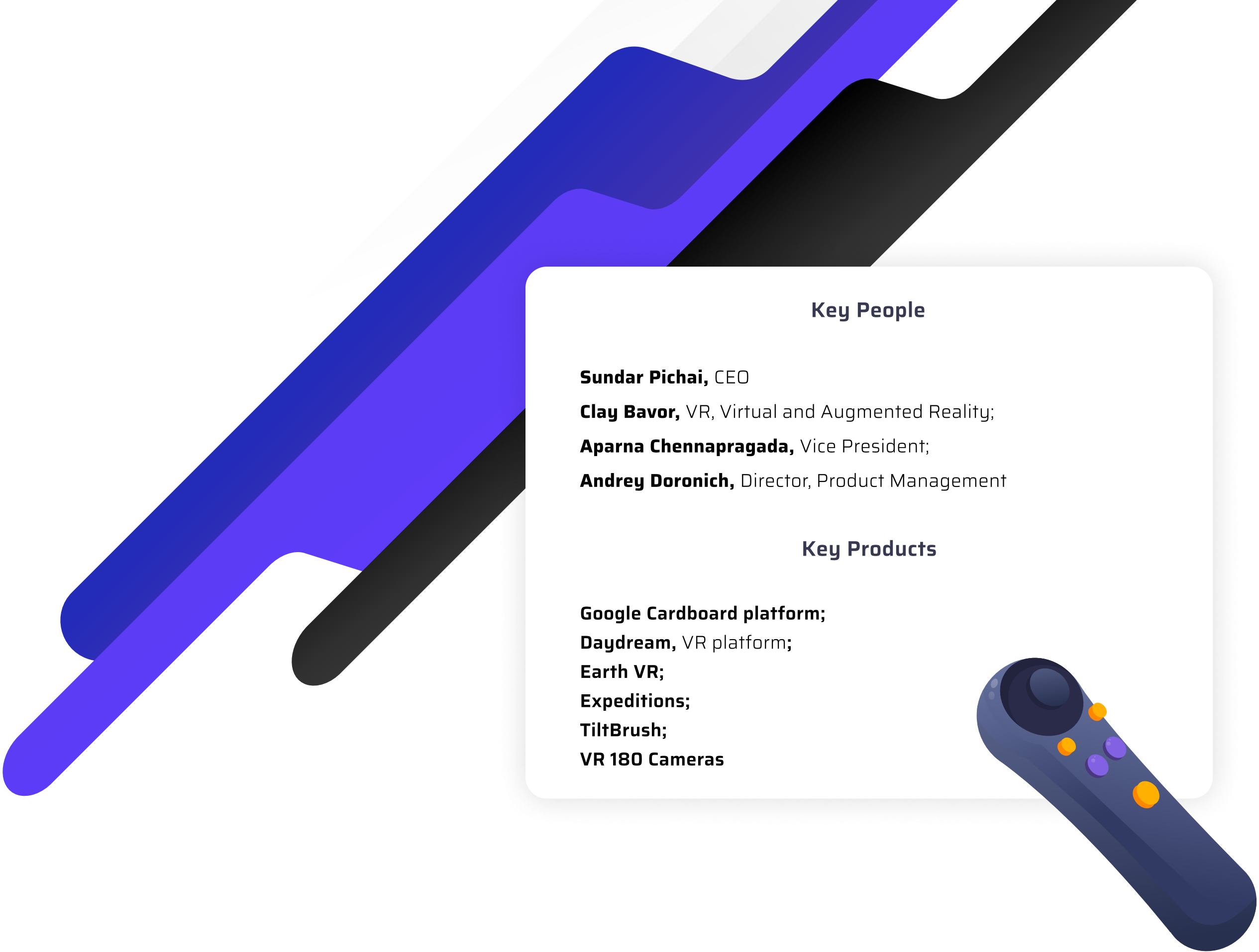
Key Products

AR/VR unit, the code name "**T288.**"

GOOGLE

The date they started	Key market events	Key market events
2014, the launch of Cardboard viewer	2011	Google I/O

[Tilt Brush](#) is just the latest in a series of discontinued Google VR projects. Daydream VR headsets were discontinued around the launch of the Pixel 4, Google Cardboard received a similar open-source send-off in 2019, the Jump camera and video service were 86'ed that same year, and the VR field trip software Expeditions rode off into the sunset in 2020. Its surviving projects include VR versions of YouTube and Google Earth, as well as game development studio Owlchemy Labs.



Key People

Sundar Pichai, CEO
Clay Bavor, VR, Virtual and Augmented Reality;
Aparna Chennapragada, Vice President;
Andrey Doronich, Director, Product Management

Key Products

Google Cardboard platform;
Daydream, VR platform;
Earth VR;
Expeditions;
TiltBrush;
VR 180 Cameras

STEAM

According to Wikipedia, Service provider with Steam, which generated an estimated \$3.4 billion in 2017.

The date they started	Number of employees	Key market events
2003, the launch of Steam	924	Game Developers Conference

Key People	Key Products
Gabe Newell , CEO Robin Walker , video game developer	HTC Vive Valve Index Half-Life

NEUROLINK

The company currently employs around a hundred people and hopes to have a strength of about 10,000 in the future. “There’s a super-linear relationship between the number of people at Neuralink and the number of neurons we can interact with”, [added Musk](#).

The date they started	Number of employees	Key market events
2017	7	A number of livestream events

Key People	Key Products
Elon Musk , founder	Implantable brain-machine interfaces (BMIs).

AMAZON

A recent [report from Reelgood](#) found Amazon had over 15,000 movies included with Prime in the U.S. Netflix had over 3,500, and Hulu had just under 1,000.

The date they started	Number of employees
2019	49

Key People	Key Products
Drew Bamford , Head of UX design; Joerg Tewes , CEO	Prime Video VR VR streaming

MAGICLEAP

March 2021 Magic Leap [Partners](#) with Leading Technology Solutions Provider Insight Enterprises and Specialized Distributor MPH to Expand Purchase Options for Magic Leap 1 in the Americas and Europe

HTC

PICO INTERACTIVE

Pico Studios has launched more than 400 apps on the Pico Store already. “With our Pico Studios division and B and B+ funding rounds, we’re expanding our consumer offerings in Asia and supporting developers by helping with the app and game porting, lending out dev kits, supporting app and game localization, setting up servers for multi-player games, providing monetary assistance and delivering SDKs,” said Jessie Zhang, senior director of Pico Studios

The date they started	Number of employees	Financial Data
2010	1180	Total funding amount \$3B

Key People	Key Products
Peggy Johnson, CEO; Rony Abovitz, founder; Paul Greco, CTO	Magic Leap One headsets

The date they started	Number of employees
1997	353

Key People	Key Products
Cher Wang, Chairperson and CEO; Peter Chou, Co-founder; Fred Liu, President of Engineering and Operations	VR Headsets VIVEPORT

The date they started	Number of employees
2015	96

Key People	Key Products
Henry Zhou, CEO; Sahara Hongtao Yang, CEO & Founder; Ennin Huang, VP of design	Prime Video VR VR streaming

WORLDVIZ

Worldviz is a leading provider of virtual reality solutions for the construction industry. The company's VR solutions allow users to experience a virtual construction site, enabling them to identify and address potential issues before construction begins. Worldviz's VR solutions are used by a wide range of construction professionals, including architects, engineers, and contractors.

MATTERPORT

Matterport introduces TruePlan™ for Xactimate® available to its customers designed to generate accurate sketches of any space. 'Matterport has quickly established itself as a leading platform for insurance and restoration. We're taking another big step into these industries with TruePlan for Xactimate,' said Indy Sen, Vice President of Product Marketing at Matterport. 'We're not only helping companies save time and money estimating damage, but accelerating the time it takes for claims to be processed, which ultimately helps people get back into their restored homes or offices faster.'

TESLASUIT

Teslasuit is a leading provider of virtual reality solutions for the healthcare industry. The company's VR solutions allow users to experience a virtual healthcare environment, enabling them to identify and address potential issues before a patient's treatment. TeslaSuit's VR solutions are used by a wide range of healthcare professionals, including doctors, nurses, and therapists.

The date they started

2002

Number of employees

27

Key People

Peter Schlueer, President & Founder

Key Products

VR solutions
VR software

The date they started

2011

Number of employees

356

Key People

Matt Bell, Founder and Computer Vision Entrepreneur
David Gausebeck, Chief Scientist

Key Products

3D media platform used to establish 3D and virtual reality models.

The date they started

2018

Number of employees

60

Key People

Sergey Nossoff, Senior Executive
Vlad Lukashevich, Founder, Chief Scientific Officer

Key Products

A full-body haptic feedback platform for Virtual and Augmented Reality

CONCLUSION

2020 showed many activities on the immersive technologies market, preparing the market for further market growth. Significant conditions are as follows: Facebook launched the Oculus Quest 2 sales in 2020; Microsoft introduced its Mesh platform in 2021.

We still do not have proven data on Apple headsets. There are rumours they are going to sell top market devices. The dates for Apple immersive products to hit the market are set to 2022-2023.

Google provides no information on the hardware development. On the software side, Google is working with the essential experiences people associate with AR on smartphones. Major experiences are [Live View](#), walking directions by turning on your phone's camera, and [Google Lens](#), a visual search tool. Tech Giant introduces AR to the mass market when 3D animals and other virtual objects in Search can be placed in the environment.

Amazon is adding a VR streaming platform with excellent content.

Autodesk, a 3D-modeling software developer, announced a partnership with Unity to increase interoperability. It allows it to become more compatible with VR and AR technologies.

