

The Current State Of Virtual Reality



Virtual reality. The term conjures sci-fi images of immersive worlds where people can live out entirely new lives, indistinguishable from real life. The term 'virtual reality', or VR, was first coined way back in the mid-eighties, so it's an idea that's been around for a while now. Movies like *Tron* and *The Matrix* helped popularize the idea of a computer-generated universe that could all but replace reality, but those movies are now decades old, and it seems like we're all still stuck in the real world.

Back in 2015 and 2016, it seemed as though VR - along with Augmented Reality, or AR - was about to get its moment at last. When Facebook acquired VR headset developer Oculus for \$2 billion in 2014, it jump-started interest in and development of VR hardware and software. The next couple of years saw the release of headsets like the HTC Vive, PlayStation VR, Gear VR, and Google's Cardboard. VR was the hot new thing in tech circles around the world.

And then it wasn't. Lackluster sales of VR headsets made for disappointing headlines. In the third quarter of 2017, sales of high-end headsets like the Oculus Rift finally reached one million units worldwide, with the PlayStation VR making up almost half of those. Sounds impressive until you consider that both the PS4 and the Xbox One sold a million units each on the first day of their release.

AR also had a rough time in the same period. Google Glass was a rare flop for the tech giant, with the augmented reality glasses being released to a largely indifferent public. And *Pokemon Go*, AR's first palpable mainstream hit, saw a massive decline in active players, losing 13 million users between July and August 2016.

The media moved on, and the hype around VR started to deflate. The high prices of headsets and the lack of content for them made VR a less attractive proposition than it had once seemed. VR began to look like another tech industry fad.

But VR and AR still have enormous potential. And there are still plenty of investors that believe in the promise of the technology. Underneath all the hype, there's still plenty of interest in the promise of VR. For instance, research firm IDC predicts worldwide spending on VR to reach \$17.8 billion in 2018, up from \$9.1 billion in 2017. Major players in the tech world are working on their own VR technology. The VR revolution is far from over.

Let's look at some of the areas where VR is still developing.

Gaming



Gamers have always been among the earliest adopters of new technology. And gaming was one of the first applications of VR that was even considered. So it's not surprising to find that video gaming is one of the areas where VR and AR have made the most significant strides forward.

It's not hard to believe that Sony is one of the key players in VR gaming. After all, more than 70 million homes currently have a PlayStation 4 sitting in the living room. The computing power of the PS4 makes it a great component for the high demands of VR, and with the name-brand recognition of the PlayStation, Sony had a significant advantage over other manufacturers. The PlayStation VR headset is one of the most popular out there. Games like *Farpoint* and *Firewall Zero Hour* give gamers a reason to invest in the PSVR headset, and some aggressive pricing strategies have brought the cost down to a level that many potential customers will be comfortable with.

But Sony are far from the only dog in this fight. The aforementioned Oculus, with the financial and marketing muscle of Facebook behind them, is making an aggressive play for gamer's hearts, and wallets. The Oculus Go, released in May 2018, is a standalone headset that doesn't need to be connected to a computer or a phone, thereby making it an attractive

option for those who don't already have a PS4. And the \$199 price makes it even more enticing. It isn't easy to compete with Sony's gaming ecosystem, but the Oculus had over 1000 games and apps available upon release, with more being added all the time.

Sony's old foe Microsoft haven't surrendered this space either. The company has partnered with Lenovo, Samsung, and HP to develop their own VR products. Speaking of Lenovo, 2018 also saw the release of their own standalone headset, the Mirage Solo. Samsung and Google both have their own products in the VR space too.

Gaming is in many ways the testing ground for new technology. HD TVs, Blue Ray disks and other innovations of the past all got their first major fans from the gaming community. Inherently comfortable with new technology, gamers are often the first to be open to technical innovations. And with the global video game market in excess of \$135 billion, it's a market that everybody is keen to tap.

Like any new technology, VR needs to prove itself to gamers as something worth their investment. As prices of headsets come down, unit sales climb, and more developers will jump on board to provide games for this new platform. It's an exciting time for gamers, and for VR technology.

Social Media



VR technology means more than some clunky-looking headsets, though. While PlayStation and Oculus headsets go after the living room gaming markets, other developers are focusing more and more on the application of virtual reality on social media platforms.

Given that Facebook has invested so heavily in this area, it's perhaps not surprising that they are ahead of the curve when it comes to VR integration. Facebook already has 360 and VR videos on its platform, so expect to see similar developments on the social media sites Facebook owns, Instagram and Whatsapp.

And then there's Google. Google's Daydream headset has been on the market since 2016 and is one of the most affordable VR headsets around. But that's nothing compared to Cardboard, the cheap and cheerful cardboard headset that Google will show you how to make for yourself. By using the viewer with your phone, Cardboard offers a fun way for people to experience VR at next to no cost. And since Google owns YouTube, the ubiquitous video streaming site, expect to see some interesting developments here in the coming months and years.

The possibilities for VR and AR in social media are staggering. It's one thing to send your grandmother a Facebook message asking for a recipe, but imagine virtually standing in the kitchen with her as you cook together. Or visiting friends in other parts of the world without leaving your own home. It's no wonder that some of the world's biggest tech companies are jostling for position in this emerging area.

From Virtual Reality To Actual Reality



The most exciting thing about new technology is that we can never know just how it will end up changing the world. No one knew that the internet would take its current form when they first began to develop a way for computers to communicate with one another. VR has the same, near limitless potential for world-changing innovation. Here are just a few of the areas in which VR technology is currently being developed:

- **Medicine**

Being able to study anatomy in a hands-on way without cutting someone open is an obvious benefit to VR technology in the healthcare field. But trials have found it useful in other areas too. For one, people suffering from PTSD have been able to use VR to expose themselves to triggers in a controlled way, thereby overcoming their fight-or-flight responses. Similarly, paralyzed patients have been given back the sensation of control over their limbs. While the sensation is illusory, it has had the effect of giving patients greater control over other parts

of their bodies, such as bladder function. In the same way, patients suffering from phantom pain in missing limbs have used VR to alleviate their symptoms.

- **Education**

A few years from now, children may be going on virtual field trips around the world. But VR offers more in the field of education. Complex problems can be better understood through the tactile experience VR offers, and the danger inherent in certain areas of study can be removed through the use of VR.

- **Tourism**

VR could let you see the world without the jetlag. But the potential goes much deeper than that. VR allows for the reconstruction of vanished cultural sights or ones that are impossible to access due to regional unrest. With so much of the world's heritage threatened by changing climates or conflict, VR's ability to recreate the world could be invaluable. And this is an application that's already being tried out across the world. It's possible to take a kayak tour of the Grand Canyon, scale Mount Everest or even go to outer space thanks to VR.

Trending Products

Far from being a fad whose time has passed, VR still has enormous potential. But what does that mean for you, here and now? How do you experience the power of VR for yourself?

Thanks to all the money being invested in this area, prices for VR equipment continue to fall. Here are some of the most popular VR products available right now:

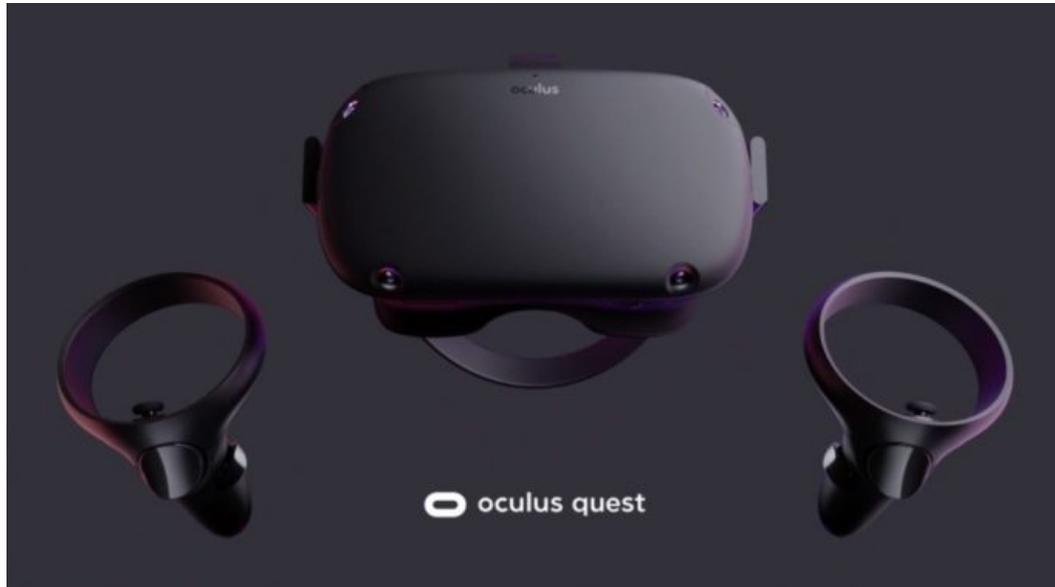
HTC Vive Focus



HTC makes some of the highest quality - and most expensive - VR headsets around. The Vive Focus is the company's first stand-alone headset that can work by itself without being connected to a computer. Released November 2018, it's more than just a gaming

device. With the Vive Sync collaboration app, it's designed to make it easier for people to work together remotely, giving it a use beyond entertainment.

Oculus Quest



As an affordable standalone headset, the Oculus Go was able to disrupt the VR market significantly. But the Quest, slated for release in Spring 2019, is intended to take things further. Like the Go, the Quest will be a standalone headset that doesn't require any other hardware to function. But with greatly improved graphics and sound, the Quest offers a more immersive experience than any other Oculus headset around.

Google Earth VR



Available for the Oculus Rift and HTC Vive as well as Google's own low-tech Cardboard viewer, Google Earth in VR is a sight to behold. Take a world tour without leaving your sofa. With the ability to see the world's most stunning landscapes, Google Earth is one of the best non-game apps available for VR users. And it's free.

Samsung Gear VR



As you would expect from the phone giant, Samsung's forays into the VR market have been based around the mobile side of things. The Gear remains one of the best mobile headsets you can buy. With a responsive controller and voice commands, it's easy to get started with this headset. And with access to the Oculus store, you can browse over 600 titles.

Ocean Rift



The best VR apps and games make the current limitations of the technology work for them. This ocean exploration app lets you dive underwater and see the creatures of the sea for yourself. The developers leaned into the VR aspect by putting the outline of a diver's mask at the edges of your vision, so that the weight of your headset actually adds to the immersion rather than detracts from it. When you encounter sharks and other creatures, it feels almost terrifyingly real. But don't worry - you're still safe at home.

Borderlands 2 VR



The first Borderlands was a hugely popular game, and the sequel was even more so, selling over 13 million copies worldwide. Now, just in time for Christmas - and timed to coincide with the second anniversary of Playstation VR - the VR version of the game has been announced. While it's currently exclusive to the PSVR, rumors exist that it will eventually become available for other VR systems, such as Oculus and HTC. Could this be the breakthrough game that pushes VR onto the mainstream? We'll just have to wait and see...