

Virtual Reality



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Virtual reality is an artificial, computer-generated simulation or recreation of a real life environment or situation. It immerses the user by making them feel like they are experiencing the simulated reality firsthand, primarily by stimulating their vision and hearing. VR is typically achieved by wearing a headset like Facebook's Oculus equipped with the technology, and is used prominently in two different ways:

- To create and enhance an imaginary reality for gaming, entertainment, and play (Such as video and computer games, or 3D movies, head mounted display).
- To enhance training for real life environments by creating a simulation of reality where people can practice beforehand (Such as flight simulators for pilots).

Virtual reality is possible through a coding language known as VRML (Virtual Reality Modeling Language) which can be used to create a series of images, and specify what types of interactions are possible for them.

AR technology is quickly coming into the mainstream. It is used to display score overlays on telecasted sports games and pop out 3D emails, photos or text messages on mobile devices. Leaders of the tech industry are also using AR to do amazing and revolutionary things with holograms and motion activated commands.

Augmented Reality vs. Virtual Reality

Augmented reality and virtual reality are inverse reflections of one in another with what each technology seeks to accomplish and deliver for the user. Virtual reality offers a digital recreation of a real life setting, while augmented reality delivers virtual elements as an overlay to the real world.

The promise of VR has excited us for decades, but introducing a new product category to the world is always challenging.

However, the time is right for VR and it is happening now.

Ecosystem drivers and technology advancements are aligning to make VR possible.

Many of the technology advancements mentioned above have been driven by smartphones, and the VR ecosystem development will mirror what happened in the mobile industry. The mobile ecosystem has characteristics that make the proliferation of new technologies very feasible, such as:

Innovation at scale, which brings both cutting edge technology and cost advantages. Over a billion smartphones are shipping globally per year, which brings tremendous scale and innovation to mobile.

Rapid design cycles, which bring fast adoption of those cutting edge technologies. Smartphone OEMs have a cadence of shipping an upgraded model every year.

Mass adoption, which means that smartphone usage has created a broad appeal for mainstream consumers. Smartphone users are adventurous and willing to try new things, such as downloading new apps from an app store.

We are on the verge of consumer VR becoming a reality. After several false starts, ecosystem drivers and technology advancements are aligning to make VR possible—and the mobile industry will lead the way. VR offers such new and compelling experiences that it is going to transform the way we interact with the world. Making those VR experiences truly immersive requires simultaneously meeting several extreme requirements across visual quality, sound quality, and intuitive interactions. Mobile VR, which will drive mass consumer adoption, adds additional power and thermal requirements since the headset needs to be comfortable, lightweight, and cool to the touch.