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Business

The Virtual Reality of John Carmack

The Dallas video game genius behind "Doom" and "Quake" is back, this time in the nascent VR space. In this exclusive interview, he tells why.

By David Marlett | August 20, 2015 | 12:00 am







From the storyteller on a Greek stage to the latest in curved-screen tvs and IMAX theaters, the holy grail of entertainment has always been immersion: putting the audience "inside" the drama, transporting them to another time and place. To date, that has been an "over there" experience, leaving a physical gap that reminds our senses that we're not truly immersed. But that's beginning to change, thanks to the advent of modern Virtual Reality (VR) technology.

Just within the last two years, there has been a great leap forward in immersion techniques. Along the way we've discovered that VR is not just for entertainment—gaming and movies, for example—but that it also has broad commercial applications for the likes of virtual travel, real estate evaluation, and remote training. While companies ranging from Google to Sony are jumping into the space, the undisputed leader in this new technology is 3-year-old Oculus VR, a California-based virtual reality firm that was acquired by Facebook last year for \$2 billion. The company produces the Oculus Rift, the leading VR headgear, whose first consumer version is slated to arrive in early 2016. And the technology leader for Oculus is North Texas video game pioneer John Carmack.

Feeling intimidated in conversation with Carmack is understandable. He's a brilliant tech innovator whom you might imagine has the answer to many of our most burning questions: Where will science lead us? What's next for humanity? It's more likely, though, that you will get a clipped reply to such questions, like this: "That is not something I have developed a specific opinion on yet." But, wait for it—then Carmack will take your question and turn it around, allowing himself the runway to expound on whatever is on his mind.

In scientific detail garnished with a sharp, fleeting smile, he will lay out an analytic yet buoyant vision of the future ... the future of what interests him, that is: aerospace, and immersive experiences, punctuated with a good dose of libertarian philosophy. One way or another you will come away enthused and a little less intimidated by this man—a cultural icon who has, defiantly, made Dallas his home.

Yes, defiantly. After Carmack accepted the job as chief technology officer at Oculus, he turned down an undisclosed (yet no doubt extraordinary) offer to move his family to the company headquarters in California's Silicon Valley. No, he would not leave Texas, he said. In fact, as a condition of his acceptance, he said Oculus would have to open an office in Dallas—which it has since done. In a glass tower near NorthPark Center, with a team of 15 or so Oculus employees, Carmack now does what he does best: quietly invent, innovate, and solve. And he does so with an attitude that all things are not only possible, but he is the man to do them. "I am such an optimist about



everything that we have today and where we are going," he says. "I am happy to be part of the technological wave pushing things."

[inline_image id="1" align="r" crop="tall"]First things first, though, for the uninitiated: Who, exactly, is John Carmack? If you are over 35 and have ever played "Doom," you are mildly confused at how others might be unaware of the tech genius in our midst. Moreover, if you still play "Wolfenstein 3D," you are downright annoyed at the ignorant civilians for whom the Carmack name doesn't immediately engender awe.

For everyone else, picture a socially awkward, 45-year-old Kansas native who is unremarkable in build and height. Envision a college dropout with unruly blonde hair and a sharp-pitched voice whose big wardrobe change from summer to winter is t-shirt/shorts/tennis shoes to t-shirt/pants/tennis shoes. Add in amassed wealth, a dry wit, a teaching spirit matched by a family-devoted heart, and an almost annoying heap of enthusiasm. Finally, layer in the fact that he is one of the pioneers of the largest entertainment industry in the history of mankind, bigger than movies and music combined: the modern video game.

Carmack's employer, Oculus, produces the head-mounted displays in which players or audience members are immersed 360 degrees in a game or movie. Just before taking the CTO position there, Carmack was wrapping up his long career with his Dallas-based game development company, id Software, where he led the creation of many iconic video games and, along the way, invented much of the industry.

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As usual with Carmack, the decision to join Oculus came from inspiration for its technological challenges. He recalls: "Oculus showed me a mock-up" of what would eventually become the Gear VR—a mobile-phone-based headmounted display made now by Oculus with Samsung Telecommunications—"and I said, 'I can do something really good with this.' So I decided to take the CTO position."

Prior to joining Oculus, and simultaneous with his work at id, Carmack was pursuing another of his interests—building rockets for space travel through his company Armadillo AeroSpace, looking to get into the "low orbit" world



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