Virtual Reality You Can Walk Around In

The New York Times is using it. So is the White House. But virtual reality has yet to become truly mainstream. A new form of destination entertainment could help.

BY ERIC KESTER
Chris Madsen had been searching for an elusive sensation for more than 20 years, and now, as he stepped through twinkling dust particles in an abandoned hallway, he sensed he was close. Madsen, a virtual-reality expert for consumer news site Road to VR, stepped through an open door and found himself balanced precariously on the edge of a cliff. Inching forward, he peered over the precipice. Hundreds of feet below, crags jutted through an olive-green haze. His jacket snapped in a wind that, in an almost consciously benevolent act, pushed him back from certain doom.

Weak-kneed, Madsen flipped up his virtual-reality headset, instantly returning to a 30-by-30-foot soundstage in the Void, a real-life VR playground about 30 miles south of Salt Lake City. Short for the Vision of Infinite Dimensions, the Void is a physical arena for virtual reality that, when overlaid with graphics from a headset, transforms into a fully traversable gaming environment. There are special effects from wind machines, water sprinklers (to simulate rain), and heat sources (fire).

Madsen is one of 2,000 beta testers trying out the Void in advance of its opening later this year. His task: to determine whether the 3.8 million viewers of the Void’s preview on YouTube will finally experience the future of virtual reality that continually seems to arrive but never quite materializes—true presence, rather than just viewing a scene through a headset while sitting on a couch.

“Anyone can feel immersion when there’s a 360-degree environment and it feels kind of like you’re there,” Madsen says. “Presence is different. It’s as though there’s a switch thrown so that suddenly you are in this new dimension. It’s so intense that the primal part of your brain won’t even let you take a step off a virtual cliff.”

Madsen says one of the most important requirements for achieving presence is the ability to physically move. It was this idea that inspired Void cofounder and CEO Ken Bretschneider. A former digital artist/fine artist for the 1994 flight-simulator game VR Stalker, Bretschneider sold his cyber-security company in 2012 and began investing heavily (he won’t say how much, but reports suggest upward of $13 million) in his plan to develop something better.

Even from the outset, Bretschneider saw that weak technology like limited peripheral views and unrealistic audio quality on current consumer-grade VR headsets would be an obstacle to his project’s success. The Void team began developing its own “Rapture”-branded technology (see above) to supplement what was available.

Bretschneider also scoured the world of technology for a way to track multiple players across a virtual field without “confusion,” a glitch in which optical trackers switch out “confusion,” a glitch in which optical trackers switch randomly, pushing visual and hearing cues (using a headset, for example) and then ask a person to walk in a straight line, he will naturally walk in circles.

This is not to say that there are no skeptics. Kevin Williams, a colleague of Madsen’s at Road to VR, expressed concern about the tracking system, at least in the early stages of development. Online VR forums, meanwhile, have seen a number of potential users question whether the yet-to-be-unveiled Rapture equipment can live up to its lofty specs. Is this just the next in a long line of VR companies that overpromise and underperform?

“I understand where they’re coming from,” Bretschneider says. “Is the Void perfect yet? No. But we’ve had a 100 percent satisfaction rate in two open beta tests that put nearly 2,000 people through our experiences.”

After feeling literal heat from a virtual fire, real moisture wafting from a cyber cave, and genuine fear from peering over a cliff that doesn’t exist, Madsen says he believes that the castle dreaming Bretschneider has built represents a step forward in the inevitable widespread adoption of virtual reality. The technology works. The funding is set. The only question is whether we’ll get off the couch and use it.

**NOT-SO-IMPRESSIVE MOMENTS IN VIRTUAL-REALITY HISTORY**

**THE VIRTUIX OMNI**
This treadmill shown at the 2015 Consumer Electronics Show allows users to play a first-person “speed-shooter” game while strapped into a baby-bouncer-esque harness. Real cool, guys.

**CYBERCOOK**
This new “game” from Starship Group has the Guitar Hero problem. Why spend hours perfecting your cooking skills on a pretend platform with inedible graphics when you could just, you know, cook?

**VROOM SERVICE**
Guests at some Marriott hotels can order a loaner VR headset to explore exotic destinations, like an “ice cream shop in Rwanda,” from their rooms. Maybe go outside instead? —Lara Sorokanich

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**RAPTURE HEAD-MOUNTED DISPLAY** Has dual-2K-per-eye OLED displays with ZK-per-eye resolution.

**RAPTURE PERIPHERAL** One of several handheld add-ons featuring haptic feedback. There is also a pump-action gun with two triggers.

**RAPTURE BACKTOP VEST** Provides four different types of haptic feedback for laser and bullet impacts.

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PHOTOGRAPH BY CHAD KIRKLAND

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