

9 industries using virtual reality

While virtual reality is commonly associated with gaming, it is being used in many more capacities. Here are 9 examples.

Virtual reality has been tied to gaming for a while, but as the technology progresses, more and more uses are surfacing. It's being used in many industries in various capacities, very often involving job training or new ways of introducing an audience to a concept or experience.

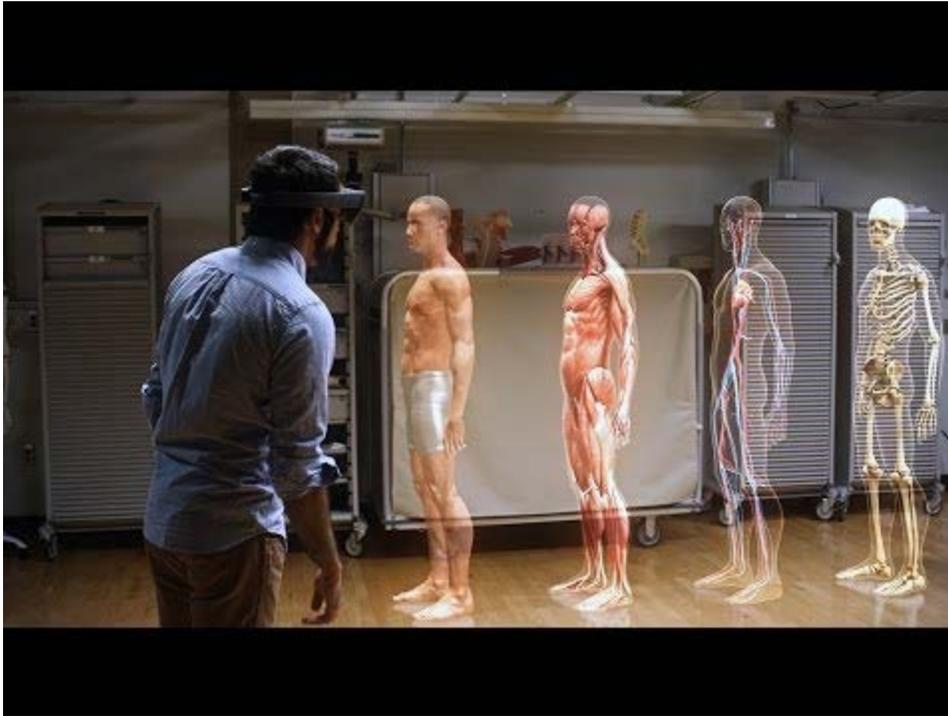
Below are 10 different industries that are using virtual reality and how they're incorporating it into everyday life.

Healthcare



Virtual reality has multiple applications for healthcare. One use, which is not brand new, is the use of VR in therapy. For example, psychiatrists at the University of Louisville use VR in cognitive behavior therapy to treat patients with social anxieties or phobias of things like flying, public speaking, or heights. The controlled environment allows doctors to expose their patients to simulations and direct them on how to cope with how they're feeling.

Medical journal *Frontiers in Neuroscience* published a study last year on the use of virtual reality to treat the phantom limb pain of people who have lost limbs. The therapy uses sensors that pick up on nerve inputs from the brain, and patients must complete a game using a virtual limb. It helps them gain control — so if an amputee feels as though they've been clenching their fist, seeing a virtual limb that they control helps them learn how to relax the fist.



Entertainment

Entertainment will likely be one of the first and strongest examples of the change virtual reality will bring to the industry, and gaming is one of the most obvious uses. There are other apps, though, like Oculus Cinema, that allow users to watch a movie with a deserted movie theater all to themselves. The movie theater industry is, undoubtedly, stoked.

And if loud music and throngs of rowdy fans aren't your cup of tea, keep an eye out for immersive VR concert experiences. Users can hover near Paul McCartney's piano on stage, or just near the speakers (minus the hearing loss) while he performs "Live and Let Die" in his VR app. Coldplay also released a similar VR experience at the end of 2014.

Automotive



Ford Motor Company currently uses virtual reality in its Immersion Lab to help get a sense of how customers experience their cars. They use Oculus Rift headsets, to look at high def renderings of the interiors and exteriors of cars. They've also developed prop-like tools, such as a flashlight, to be used in the VR experience to simulate the experience of looking around a car in the dark, for example. The benefit to all this is that Ford can get a jump on the product develop process without having to wait for a physical prototype of a new model.

Similarly, Audi announced this year that they'd be using VR later in the year to give potential car buyers an in-depth look at their cars, as well as the ability to customize not just colors, but electronics systems, inlays, and even the interior leather.

This year Toyota used virtual reality as part of its TeenDrive365 campaign to educate teenagers and parents about distracted driving. The distracted driving simulator included sensors that translated what the user was doing with the pedals or steering wheel into the simulation, and included built-in distractions like a ringing cellphone and chatty friends in the backseat.



Advertising

Branded VR experiences are taking on many shapes. DODO case, which makes Google Cardboard pop-up viewers, will customize viewers with logos and the like for companies. Digital marketing agencies are also exploring how they might couple VR and brands.

In one recent instance, makers of the Christopher Nolan movie Interstellar also created a traveling VR experience that puts users in the cockpit of the spaceship from the movie.

At the Sundance Film Festival, this year, Merrell, an outdoor apparel brand, set up an experience where users could go trekking up and across treacherous mount sides, while wearing their hiking shoes, of course.

Education



Training will be a major use for VR — there's potential for everyone from mechanics to surgeons. For younger students, though, virtual reality in the classroom could mean virtual field trips, immersive games, and even uses for children with special needs.

In Ireland, a school in the town of Broughal used OpenSim to recreate Clonmacnoise, which is the ruins of an old monastery, surrounded by a cemetery. It took two weeks to build, but then using Oculus they could explore the site.

Tourism



There's a reason supermarkets hand out samples.

In December, Destination British Columbia launched a VR experience called The Wild Within which features two options: a boat ride and a hike in the mountains. The app was created to promote tourism to BC. In the promotional video for the app, Destination British Columbia's marketing development manager said it helps engage the traveler in an emotional conversation about why they should visit.

Similarly, Marriott Hotels created a "teleporter" which lets users step into a booth, wear an Oculus Rift headset and visit downtown London or a beach in Hawaii. The teleporter also caters to other senses, so users can feel wind in their hair and sun on their faces.

Space

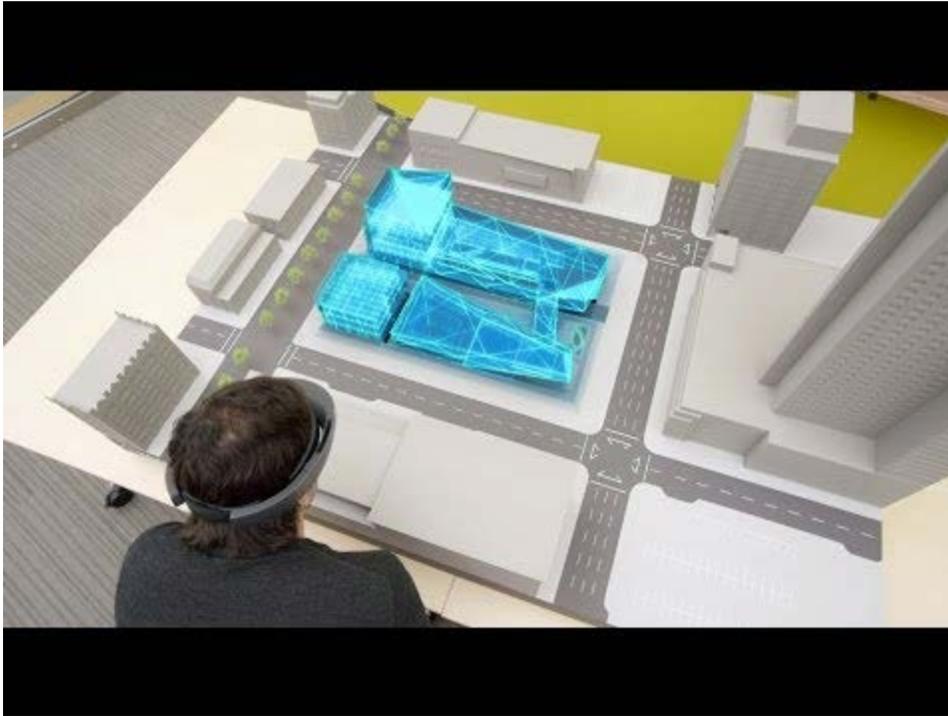
NASA's been using VR for years, especially in training situations. One recent use has more to do with improving the quality of life and mental health of astronauts on longer term missions. The idea is a Virtual Space Station, which would be "a set of interactive behavioral health training and treatment programs with support from NASA's National Space Biomedical Research Institute," per a release. And Dartmouth's Digital Arts Leadership and Innovation lab got a \$1.6 grant for the project.



Skilled trades



Welding is an old trade, but now training can be supplemented with virtual reality. One immediate benefit is that using virtual reality training means money doesn't have to be spent on materials to practice on, and the trainees can repeat the task as many times as they need to. It won't replace traditional training, but it can make the process faster and cheaper.



Military and law enforcement

Recently, the British government made the announcement that it would incorporate Oculus Rift into its training of trauma medics for battle. Other military uses are simulations that can help train how to deal with IEDs — and simulations like those can be repeated and mistakes learned from.

Pima County in Arizona uses a 300-degree, 5-screen, setup to train officers on how to react in certain situations. The scenarios, which include a man with a gun, or woman with a knife and a child, can produce multiple outcomes depending on how the officer reacts.



Mauricio Ferrazza, Department Chairperson
Miami Animation and Gaming International Complex - MAGIC
School of Engineering+Technology
Wolfson Campus, Miami Dade College
300 NE 2nd Ave, Room 8105
Miami, Florida 33132

Office | 305.237.7852
Email | mferrazz@mdc.edu
Web | www.mdc.edu/magic