



# Can Virtual Reality Improve Our Real Lives?

## KEY TAKEAWAYS

- Virtual reality (VR) technology is increasingly affordable and compelling.
- VR tech will rapidly evolve, creating powerful opportunities in engineering and design, education, entertainment, retail sales, and other key areas of life.
- VR offers businesses a robust “Plan B” for in-person challenges; corporate training in VR is incredibly effective; and you can rapidly get to proof-of-concept at low cost.

You find yourself in a stately and sprawling great room with a 20-foot-high ceiling above and a roaring fire off to your left. An expansive balcony outside the room overlooks a lush forest. And in front of you stand a top accountant and one of Europe’s most respected real estate professionals—both of whom are here to help you buy land overseas so you can build your retirement dream home.

But here’s the thing: The accountant is actually in her office some 300 miles away, and the European real estate professional is in Belgium. And you? You’re in your den at home. And yet, thanks to your online avatars, you could swear you’re all physically in the same room—mere feet apart from each other as you converse, walk outside to enjoy the view together, share smiles and jokes, review documents, and plan your future. Later, perhaps, you’ll take a break by playing a game of virtual table tennis together or flying over a virtual simulation of the land you hope to purchase.

If you’re thinking this hypothetical scene isn’t your typical online video meeting, you’re correct. Welcome to the world of virtual reality (VR)—where the extraordinarily vivid sights and sounds of computer-generated virtual worlds immerse you in a uniquely convincing experience. As far as your brain is concerned, *you’re really, truly “there”*—fully present in an alternative, three-dimensional and deeply interactive world that feels shockingly real.

## Powerful outcomes

You may be familiar with VR, if you've ever seen people wearing a headset like the one seen in the photograph below. But while VR once appealed mainly to video gamers, it's now a tool increasingly used in business, education and daily life to achieve some powerful (and pretty darn cool) outcomes. For example, you can:

- Use an avatar—a realistic digital representation of yourself—to try on clothing in a virtual store (and mix and match!) to ensure a perfect fit before you buy
- Drop virtual furniture or art into your living spaces to see exactly how the pieces would look
- “Walk through” your company’s factory or production plant and monitor all technical gauges and information feeds in real time
- Give a speech and have a translation appear in real time above your head in nearly any language you choose
- Meet with faraway friends, team members, business partners and professionals in a way that makes you feel you are truly together
- Provide each student in your class with a tailored classroom designed around his or her specific learning style and needs
- Fly over an erupting Icelandic volcano to get an up-close-and-personal view (for fun or educational purposes)



The key to all of this is the VR headset and hand controllers (and related apps), which use sensors and cameras to track your head, body position and facial expressions, as well as enable you to pick up virtual objects and manipulate them as if they were real. Objects in VR—from virtual people and animals (real or imaginary) to cars, clothing stores, light sabers and trust documents—provide a sense of spatial presence, so they feel like they’re located in the VR world with you, both relative to and independent of your position. One basic example: You can have an entirely realistic jump rope experience in VR while holding only two controllers.

This VR world is part of a broader ambition by big tech and entrepreneurs to connect their creations into a unified and networked world called the “metaverse”—an alternative virtual universe of connected creations where we “enter” and explore the web in immersive and experiential environments.

## A big leap forward

The promise of VR has been touted for a long time—probably as far back as 1957, when the first VR multimedia device was invented. But to those who follow the industry closely—such as Marcus Shingles, CEO of Exponential Destiny (and former CEO of the XPRIZE Foundation), who assists companies and educators in getting up to speed and rapidly deploying VR—the all-important leap from “tech cool” to “real-life useful” has finally occurred.

Shingles emphasizes that timing is everything, and that in the past two years there has been a huge influx of VR investment and innovation, especially in the wake of COVID-19 and lockdowns. He notes that the industry has passed a technological and use-for-value inflection point that will continue to see heavily financially backed VR improve even more as it spreads among—and perhaps becomes indispensable to—many sectors of commerce, education, training, sales, entertainment, health care and more.

Consider that nearly all the big tech players—Facebook/Meta, Google/Alphabet, Apple, Sony, Microsoft, Samsung—are heavily investing in VR. Example: Facebook—which owns Oculus, the maker of the VR headset pictured at right—presently has 30 percent of its engineering workforce dedicated to creating the “metaverse.”



## The rapidly expanding opportunities for VR

To Shingles, all of this means that there is a strong business case for VR—which, in turn, means that there's a strong case for consumers, professionals and educators to be paying attention to what VR can offer. Just as we enjoy ourselves more when we're totally immersed in a fun real-world vacation experience, so too we can potentially see better results when we're fully engaged in interactions with others who may be giving us advice or information, helping us troubleshoot problems with a project, or teaching us how to use a product.

In such cases, the experiential nature of VR can potentially boost users' understanding, learning, engagement and knowledge retention—particularly when it virtually brings together experts and professionals from across the world in a way that feels extremely real and present.

Going forward, says Shingles, we may even increasingly choose to interact with others in a VR space over face-to-face meetings—largely because of VR's enhanced abilities to both take in and communicate information that others can absorb, remember and respond to. He points to four key reasons why VR is becoming increasingly relevant to how we conduct business and get things done personally and professionally:

- 1. Low costs.** Due to relatively inexpensive headsets and minimal hardware and software costs, businesses can rapidly—in just weeks, often—produce a viable version of a VR product, service or space for one or more markets or audiences. The cost of these devices in the past several years has decreased exponentially, from thousands of dollars to under \$400 in many cases. Low costs also mean businesses can agilely experiment without fear of failure until they arrive at a commercially viable outcome. Or as Shingles likes to say, “fail fast, fail cheap, and fail forward.” For consumers, low costs mean we can access VR spaces and tools without breaking the bank.
- 2. Training and education.** VR is showing itself to be effective in training and educational environments. A 2020 PricewaterhouseCoopers study showed that VR learners:
  - Could be trained 400 percent faster than their classroom peers
  - Were 275 percent more confident in applying their new skills
  - Were 375 percent more emotionally connected to content than classroom listeners were
  - Were 400 percent more focused than ordinary e-learning peers

Given how much money goes into corporate training and education, VR likely offers significant bottom-line benefits here. And for those of us doing the learning, the data suggests impressive results in terms of our ability to take in new information and quickly put it to work.

3. **The need for a Plan B.** The pandemic reinforced the idea that every business and nonprofit—and arguably every individual and family—can likely benefit by having a viable, functional, forward-thinking Plan B for working, learning and communicating. Immersive, experiential VR that “feels real” might be the ticket out of “Zoom fatigue”—and put us on a path to better online learning and working. Some organizations that have experimented with this Plan B are quickly realizing that it can also be an effective Plan A, as they see their employees and other stakeholders embrace VR.
4. **Retraining the structurally unemployed and disadvantaged.** Shingles believes that given the likely rise in robotics and artificial intelligence (AI), we will see an acceleration of structural unemployment in many industries. This is therefore a great time to begin retraining employees so they can implement VR solutions both in-house and as an income-generating service.

Businesses and industries already making VR implementations include:

- Commercial retail and e-commerce (360° immersive walkarounds)
- Training and education (individualized classrooms with educators from around the globe)
- Tourism (eventually anywhere on—or off!—the planet)
- Engineering and manufacturing (magnify a circuit—real or contemplated—10,000X and “walk” around in it)
- Health care (training, diagnosis and even treatment )
- Interior design and architecture (integration with computer-assisted design and building information modeling design systems)
- Real estate (walkthroughs)

## What's next?

For Shingles, the coming together of VR hardware, software and innovation in a pandemic-accelerated environment is a once-in-a-lifetime alignment of the stars. It's likely that headsets will exponentially evolve from here, culminating in units that are hyperrealistic as well as lighter and more comfortable. It's almost as if today's VR technology is like an early smartphone—but is quickly on its way to becoming the latest iPhone.

VR's ability to teleport us into new worlds—where we can interact with nearly anyone or anything with greatly augmented learning powers—is pretty astonishing. But it's also the case that actually building in VR may become increasingly easy and common. So instead of simply asking, “What can VR do for me?” you might soon be able to ask, “What can I do with VR to better myself, my family, my business, my nonprofit—or even the world?”

VFO Inner Circle Special Report

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