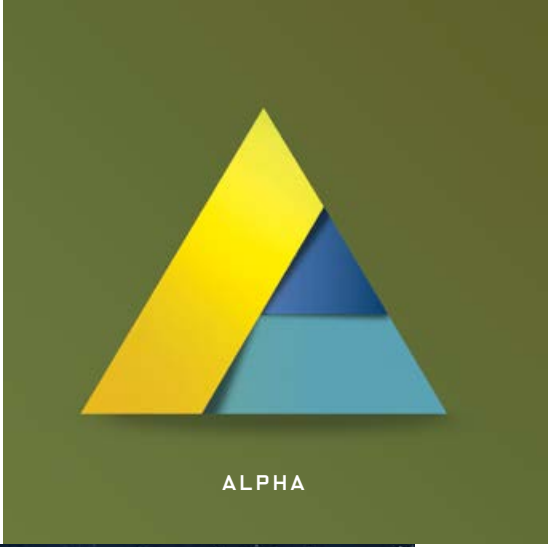
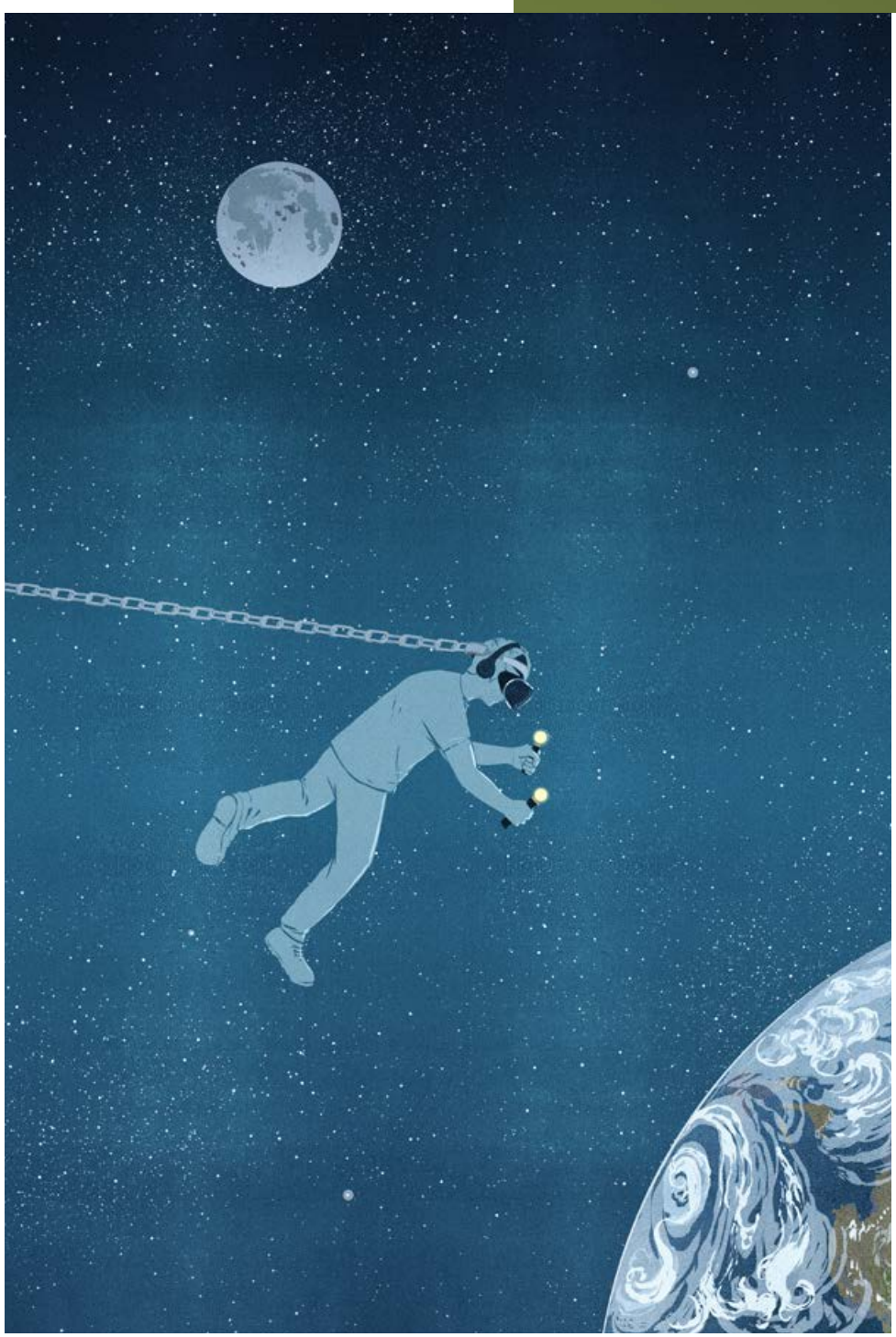
ARGUMENT

# NO ESCAPE
## THE COMPLICATED REALITY OF VIRTUAL REALITY

BY PETER RUBIN



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**AT THE RISK** of being ridiculed by WIRED readers of 2076, who will no doubt happen upon this essay courtesy of their NeuroViz's "Back in My Day" function, it's worth saying that our gadgets have never been more attractive. Between user interface design, user experience design, and I guess what you'd call *design* design, our most forward-looking devices are also the best-looking and the easiest to use. Our phones are our computers are our stereos are our brushed slivers of heaven. God, even *thermostats* are gorgeous. Everything is seamless and wireless and frictionless and painless. But do you know what needs to be all those things, more than anything—and isn't? Virtual reality. ¶ VR, as we've all been hearing for four years now, is the very manifestation of that promise. As the boundaries of the frame melt away, so do the boundaries of your expe-

rience. You can connect to anyone, anything, anywhere. With the arrival of the Oculus Rift and HTC Vive headsets this spring, that's happening right now. What's going on directly outside of the headsets, though, is a little less seamless. OK, a lot less. OK, fine: It's downright clunky.

Every high-end consumer headset coming out this year—and that includes Sony's PlayStation VR—is firmly grounded by a wired connection. (I'm not talking about underpowered giveaways like Google Cardboard.) The more ambitious the device, the messier the physical setup gets. The HTC Vive, which supports "room-scale" VR, lets you roam around your living room like you're in the Holodeck. It's amazing. But before you jump behind the wheel of a race car or go rock-climbing in a desolate jungle, you'll need to get all your furniture out of the damn way. Then you'll need to place motion-tracking base stations around the perimeter of your new, post-furniture space. Oh, and you'll need to run a cable down your back to a box that connects to your computer. Inside the headset you'll be realizing the dawn of a world-changing technology, but on the outside you'll be a meatsack tethered to a computer like a *Matrix* baby.

These gymnastics might sound standard for any new electronics product. From videogame consoles to surround-sound setups, we're accustomed (if exhaustedly so) to a sea of cables and the finicky feng shui of interoperability. But VR isn't an all-in-one device: It's a prosthetic one, grafted onto the already complex organism that is your desktop computer. And that makes a frictionless user experience even more crucial. VR demonstrations up to now—as we've seen at electronics shows and developer summits, festivals and movie theaters—have been immaculate, proctored experiences, free of setup woes and diagnostics. But now that we're finally forced to re-create it in our homes, it's clear that we're just getting started. As transformative as VR's power is, it's rendered moot if the logistics discourage us from using it. Headsets that stay in a box are no good to anyone.

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**BELIEVE ME:** It feels awful to confess that VR is anything but perfect, to acknowledge even the slightest reservation in my otherwise Martin Shkreli–level confidence in VR. But while I'm a believer, and an early adopter, I'm also a consumer. I think about what I know VR can be, what it *will* be, and I think about me, today, in my living room, confounded by a calibration issue with the brand-new PC I bought.

Obviously, the next decade will bring dizzying leaps forward. Headsets will shrink and lighten, transforming from strap-laden albatrosses into something resembling a pair of sport sunglasses. Screens will leapfrog toward a resolution close to natural human vision. (Consumer VR clocks in around 2K; the pixels won't seem to vanish until the displays reach 16K.) The tethers that bind us will disappear, replaced by either small wearable processing units or all-in-one "systems on a chip"—no separate PC required.

The people doing the heavy lifting in VR—the scientists, the engineers, the developers—know all this. They know this is a first step, and they know that even getting to kinda-medium mass adoption will be a slow process, let alone the cultural ubiquity that so many people predict. "Cables are going to be a major obstacle in the VR industry for a long time," Palmer Luckey tweeted last year. (Luckey is the kid who jump-started—and Kickstarted—the current age of VR back in 2012, when he cobbled together a Rift prototype out of black tape and a ski-goggle strap.) Yet analysts and forecasters are falling over each other with their bullishness. A Goldman Sachs report in January claimed that VR could be a $182 billion market by 2025—potentially *twice* the size of the videogame industry. Expectations like that depend on a first wave of high-end VR devices that you go back to.

There's a reason that when you look at photos of people in VR headsets, they have that same slack-jawed half-grin on their faces. That's not just fantasy—it's feeling. But that feeling will soon need to be easier to come by. In a time of unprecedented aesthetic consideration, those wires will have to fall away so the experience of putting the headset on can be as smooth as what happens inside it. Otherwise, there's a nontrivial (and nonvirtual) chance that 2016 becomes the final wistful footnote in VR's star-crossed story. W

*Senior editor* **Peter Rubin** (@provenself) *writes frequently about virtual reality for* WIRED.