

TOGETHER IN ELECTRIC DREAMS



Virtual reality's second coming – the race to make it a living-room mainstay like the Internet or TV – promises to make for mind-expanding, world-bending viewing. But many questions remain, not least: will it change the way we play, watch and interact forever?

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“I’ve seen things you people wouldn’t believe,” is the opening line of the greatest closing speech in the greatest science fiction movie ever made. It’s also a phrase that, if I was given to grandiloquent monologues, could easily have slipped from my mouth in the moments after trying one of the new generation of virtual reality headsets. I didn’t get to “attack ships off the shoulder of Orion” or watch “C-beams glitter in the dark new Tannhauser Gate,” as the replicant Roy Batty, played in memorably deranged style by Rutger Hauer, claims to have done in the dying moments of Ridley Scott’s *Blade Runner*. But what I did see – ersatz worlds rendered with such absorbing depth and detail that I felt present within them – convinced me that I might get to do something similar, soon.

Fly over Mars. Trek through a prehistoric jungle. Speed across a desert in a galaxy far, far away. We have, of course, been able to do these sorts of things for a while now, in one form or another. Ever



since Atari’s *Pong* arrived in our living-rooms back in the mid-seventies, home computers and consoles have only gotten better and better at providing us with myriad forms of escapism. And before they came along, we could throw off the shackles of the mundane using other means: books, art, drugs, and our own imaginations. However, all of

these tickets to an altered state have drawbacks that mean the illusion easily shatters. Like the dull, uninvited party guest who won’t leave you alone, somehow reality always seems to be there, hovering in the background, waiting to tap you on the shoulder and spoil the fun.

Virtual reality, or VR, had this problem too, back when it arrived, with much fanfare, in the early ’90s. The basics were there, but the devices were plagued by latency and other issues that sullied the experience and, worse still, caused headaches. They were also prohibitively expensive. Now, though – goes the narrative lapped up by the tech world and mainstream media outlets – change is almost upon us. Thanks to a new generation of headsets that are about to hit the consumer market, affordable ones that combine the theoretic heavy-lifting done in the late 20th century with today’s technology, VR is about to hit the sweet spot. Soon, it is thought, the sense of presence will have gotten so convincing that we might no longer need to trick ourselves, to ignore what some of our senses are telling us, in order to believe the unbelievable. Soon, there might be no disbelief left at all.

This imminent prospect – of virtual worlds so convincing that the line between what is real and what is not becomes blurred – has people both scared and excited. Mostly excited. Emanating from

Silicon Valley, California, where the second coming of VR has been plotted by a plucky (and some might say lucky) tech entrepreneur called Palmer Luckey, this excitement has spread like a rabid, flesh-eating virus across the globe. It’s now everywhere where there exist video-game enthusiasts and tech early adopters, including Bangkok.

“It’s the future. No doubt. It’s amazing,” says Jonny, an expat I meet in the Starbucks at Unilever Tower. “Would you rather look at a picture of a burger, or actually eat it? With VR it feels like you’re actually in the games, the immersion is absolutely amazing.” Sitting just across from him is Chris, a German programmer who is not convinced about watching movies in a VR theatre, but says he is “looking forward to the interactive stuff.” And then there’s Daniel Petersen, by far the most vocal VR evangelist I meet. A young American entrepreneur who has recently taken up programming, he has been hosting demos in Bangkok, his adopted city, for the past couple of years. The aim: giving random people a go on his Samsung Gear VR headset and getting them excited too. So keen is he to spread the gospel that when I contact him via the website Meetup.com, he hastily arranges a VR meetup on my behalf.

What transpires is a virtual reality primer/proof-of-concept session. Daniel outlines the principles whilst letting us try out some of the demo apps, experiences, panoramic photos and games currently available. The Samsung Gear VR headset is, he explains while rubbing the lenses clean with alcohol, one of a new crop of VR goggles that work in tandem with a smartphone (others include Google Cardboard and the VR One). The graphics are not as sharp as they will be on the fully fledged Oculus Rift, the PC-tethered headset that will be released on the consumer market in early 2016, or its competitors, Sony’s Morpheus and HTC/Valve’s Vive. However, the mechanics are the same. Once slotted into the goggles, your phone projects a stereoscopic image and uses its internal sensors to track your head position. This, he says, is one of the main quantum leaps that separates now from the ’90s – in the past a network of external sensors was needed to perform these sorts of calculations.

Soon enough, it’s my turn. The first demo I try, a battlefield environment filled with *Avengers* characters in mid-flight, is not all that impressive. The screen fills my field of vision, and I can look up, down, anywhere I wish – but the space is static and I can make out individual pixels. Things pick up, though, when Daniel hands me the headset again and I find myself on a tour



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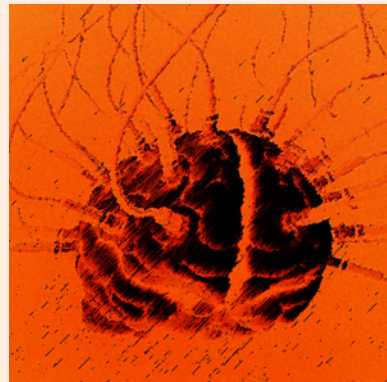
of a cartoon world rendered in deep penetrating blues, one where smiling creatures dance around me. I like it more in here. This is a trip and I’m enjoying it. Finally, there’s a panoramic view of Mars taken by NASA’s exploration rovers. By this point I have decided that the headset is a bit bulky, to the extent that I’m not sure I’d want to wear it for long periods, but I revel in the detail. When I look down I can see the craters and cracks that pockmark the surface. This might only be a more immersive update of those plastic View-Masters popular when I was a kid, but I’m intrigued at the possibilities.

Back in the ’90s, the hype surrounding virtual reality was almost as big as it is now. News anchors on *ABC News* spoke in fervent tones about the dawn of virtual reality as lurid digital landscapes made of hard-edged polygons quivered on our TV screens. Contestants on the popular UK TV show *Gamesmaster* donned giant visors and faced off in crude VR worlds such as *Dactyl Nightmare*. Many of us got lost in the acid-trip visuals, were seduced by the utopian psychobabble and flocked to see the first VR sex scene in *The Lawnmower Man*. Even the fictional TV detective Angela Lansbury donned a Power Glove in an episode of *Murder, She Wrote*. The future had arrived but looked like badly rendered outtakes from *Tron*. The consumer world was, in other words, ready to embrace VR but the technology wasn’t yet good enough or affordable enough to ensure that embrace was a full and lasting one.

But now the technology is good enough and affordable enough. And now a huge pool of talent and investors are determined to propel it into the mainstream and keep it there, including Facebook. Of all the peaks and troughs in VR history, arguably the biggest peak of all came in 2014, when Mark Zuckerberg bought Oculus VR outright for an eye-watering \$2.4 billion. This is a tech gamble of never-before-seen proportions. Zuckerberg is convinced of what almost everyone who tries the latest headsets seems to be convinced of: VR, this time, is here to stay. But what isn’t clear is whether it can clear the hurdle

marked ‘niche appeal.’

The hysterical old hypotheticals surrounding VR, such as ‘Will we all lose ourselves in VR worlds?’ and ‘Will VR addicts need to have limbs amputated?’ have, for the time being, been superseded by a more pressing question: will it offer us anything more profound than just another



entertainment medium? Zuckerberg and his team want VR to touch our lives as well as help us escape them. “So let’s say you have a friend getting married and you can’t be there,” Cory Ondrejka, vice president of engineering at Facebook (and the co-creator of *Second Life*), told *Verve* recently. “Today you’re going to get

texts and videos. But what if you could put a 360 video camera in the audience? Then, what you have is an ability to really feel like you’re there, and look around and see what’s going on in a way that’s making an incredible connection.”

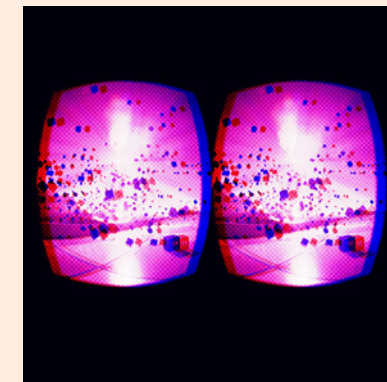
No one knows whether it will be this sort of social interaction, a killer game, or some out-of-this-world app, that blows up. Only that content, as with television, will be king. So the current strategy appears to be this: throw everything at the VR wall and see what sticks. As well as games and interactive movies (and VR-tuned controllers that will enable us to reach out and touch these worlds – Oculus VR and the other high-end headset developers Valve and Sony are pouring huge sums into these as well), myriad other avenues for content creation are being explored by the murkier fringes of the industry. Companies like Psious, for example, are working on the premise that cheap VR devices will help doctors and therapists treat patients for phobias, post-traumatic stress and even burn victims’ pain. If they are successful, the therapeutic VR technology available in hospitals for decades – VR never actually went away, it has just been licking its wounds and finding industrial applications – will soon be much more accessible. Other start-ups and entrepreneurs are putting cameras on the International Space Station, so that we might all get to tour space. Or creating hard-hitting VR documentaries. Or teaming up with museums. Or documenting nomadic tribes.

And then there’s VR erotica. Unlike the Internet, virtual reality hasn’t jumped into bed with the porn industry yet, but a lot of the media hype surrounding it in recent months has entailed journalists asking just how horny it will make us. The broad consensus so far appears to be: very. Most offerings so far are point-of-view soft and hardcore pornography in which you are just an observer, but things look set to get a lot more hands-on. Eddie Cornejo, a software developer at SugarDVD, told *Vice* recently, “Our goal is to let you somehow interact with the environment.” This porn company is already scanning its “stars” and exploring the lip-biting power of



“teledildonics,” electronic sex toys that allow people in different locations to get touchy-feely in the most intimate of ways.

“We have to dive in and learn,” says Jaron Lanier, a dreadlocked technology philosopher and computer scientist that many in the VR community look up to, not least because he was the public face of VR in the ’90s. “I think it’s important to make experiments, and even to experiment in a way that can be a little dangerous. The thing that’s really a sin is to not learn from them, to ignore the results.” For Lanier, the man widely credited with having coined the term



virtual reality, the experience of donning a funky-looking headset has always bordered on the mystical. The core of its appeal and its pleasure lies not in wiping out alien invaders and high body counts but in becoming aware of your own consciousness and visual self-expression... and even moderation.

Back in the early days of VR, in the labs of his pioneering company VPL, Lanier liked to leave a flower sitting on the table. “If somebody was in a demo for 20 minutes, we’d come out and say, just look at this flower,” he told *Verve*. “And you suddenly saw this flower in this hyperreal way because your senses had adjusted to this sort of lower resolution of a virtual world... To me, that contrast, that feeling that you have when you’re out of it after you’ve used it, has universally been more precious than what happens in it.” Soon, he believes, millions of us will have this sensory awakening for the very first time – and reach the same conclusion he has: that the “best way to use VR is to use it as little as possible.”

Game developers might not agree that what VR needs to succeed is borderline Buddhist mindfulness, but they are becoming aware of its power to shock and awe. Some are realising that the traditional formulas of gaming need to be tweaked, and that VR might be better suited to empathetic experiences than comic-book levels of unremitting violence. This is perhaps best exemplified by the experiences of Valve, a well-known software company now working on its own VR headset in collaboration with the Taiwanese mobile phone company HTC. In a recent *Time* article (the one that spawned reams of Internet memes thanks to the accompanying front cover, which featured Palmer Luckey in a constipated VR pose), a senior engineer at the company, Ken Birdwell, recalls the making of a zombie shoot-’em-up. “We noticed that everyone would move as far away from a zombie as they could; one zombie!” he says. “And it was barely moving... The terror level of a single zombie was ridiculous.” For Birdman, content-makers now have a new palette of emotional cues to adjust to and toy with, and “that’s what makes this all terrifying and exciting at the same time.”

Terror and excitement. That’s exactly what I find at Oozou, a web and mobile software company located at Em-Quartier’s Bhiraj Tower. When I walk into its new open-plan office, I find workmen busy burying wires and 30 or so programmers all sitting at iMacs, quietly immersed in their own worlds. Nervously I scan the room, looking for the company’s CEO, Jan Jones, and spot him waving at me from the games corner, where an Oculus Rift rig sits near the fridge, arcade machine and pool table. From the UK, Jan, like Daniel, appears to have no commercial motive for showing me VR. His company has no connection to VR whatsoever, he just wants me to try. He is a fan and he wants me to be one too.

Before letting me have a go, he points out the limitations. Bear in mind, he says, it’s early days. This equipment, version 2.0 of Oculus Rift’s development kit, is the equivalent of a prototype of the iPhone 1 – a primitive teaser. But he needn’t have bothered managing my expectations. This time I am wowed by what I see. The environments are crisper and richer. Standing in a room, a breeze block bears down on me from above, giving me the urge to raise my arm. In another demo, I fly through the rings of Saturn, then turn back to take in the view across our galaxy. And in another, I creep, James Bond-style, through an industrial park at night, a headlight illuminating my path. Alone in the darkness, it strikes me that I am vulnerable and anyone or anything could jump out at any second.

By the time my eyes have readjusted to what some VR geeks call “real reality,” I am fully cognizant of VR’s capacity to seduce or scare the total crap out of people. I am a convert. Almost. I am still not sure VR is going to be the game-changer everybody says it will (currently, these headsets are as limiting as they are liberating), and Bangkok’s bro-ish VR fraternity doesn’t exactly leave me convinced that the “final platform” has broad mainstream appeal either. Also, I wonder, won’t Facebook’s somewhat creepy advertising business model – which currently pivots around apparently benign mass surveillance – seem even creepier when we’re chatting about what we did last night in a private VR space with our friends?

But as for the big piece in the VR puzzle, this is close to cracked. Very soon – in mere months maybe – the phrase “seeing is believing” will surely be as applicable to the worlds that VR opens up as our own. No one knows how the VR war will unfold or who, if anyone, will win it; but one thing is certain – whether in a headset or out, it will be spectacular. ✖

