

VR headsets look set to transform the way we listen to music, play war games and eat burgers, says **Stephen Armstrong** 

might be seen as an exaggeration to say the violin bows are close enough to make you flinch, but it's not far wrong. Watching a specially shot film of the Philharmonia playing the third movement of Sibelius's Symphony No 5 through a virtual-reality headset, you find yourself barely a foot away from the principal conductor, Esa-Pekka Salonen, as he leads the orchestra - then, whichever direction you turn your head, you can see the players in 360-degree 3D. You hear the drums, so you turn to your left and see the percussionist rolling the timpani. It feels almost intrusive to watch the faces of the violinists, you're sitting so close.

This technological triumph debuts at the Royal Festival Hall in September as part of the orchestra's digital residency. It has been given full VR life by the consultancy Inition, which uses semispheres of GoPro cameras to film the panorama, then edits

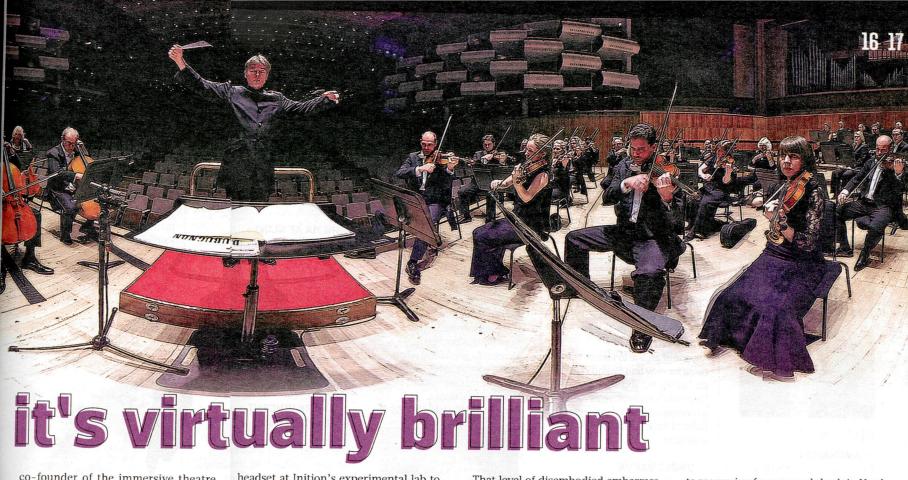
the comfort of your own home. A lot of people are betting vast sums on it.

This year sees the launch of at least six virtual-reality headsets aimed at home entertainment: the PlayStation VR (on sale in October for £350, it was announced last week), the HTC Vive, the Samsung Gear VR, the LG 360 VR, the Zeiss VR One and. the daddy of them all, the Oculus Rift. The Rift began as a hobbyists' dream, a crowdfunded start-up founded in 2012. It felt like an idea ahead of its time - until Facebook bought the company in 2014 for a very real \$2bn. The Rift headset is available to order for £500, and will require an expensive computer to make it work. The company is tilting at the gaming industry first, though Facebook's Mark Zuckerberg has suggested expanding into politics, marketing and, of course, social networking.

"It's hard to tell at this stage exactly what's going to work," says David Farrell, a game designer and researcher at Glasgow Caledonian University. "Many of the games we're used to won't translate to a VR headset — games that move fast and involve a lot of turning and cuts make people nauseous. Right now, VR games are much slower than typical games — flying a moon lander, for instance."

It's a problem Ridley Scott has encountered creating the 20-minute VR spin-off from his Oscar-nominated space epic The Martian. "Most of the tricks you rely on in movies — tracking shots, fast cuts — don't work," he explains. "You have to rethink the language of film."

"It's no coincidence that Hollywood is trying to push VR forward — cinema is the most needy of the media, as it



co-founder of the immersive theatre company Blast Theory. It experimented with prototype virtual reality in the 1999 show Desert Rain: a part-real, part-digital installation riffing on Jean Baudrillard's 1991 essay The Gulf War Did Not Take Place. "VR headsets enforce the same devoted effect — although it's isolating, rather than communal," Adams says.

Indeed, VR is picking up pace in another area that previously demanded 100% attention, but is being consumed increasingly casually by its audience—the music industry.

Last autumn, U2 toured with a VR bus parked outside selected European venues, where fans could watch the band performing Song for Someone: Bono to your left, the Edge in front of you and the Other Two somewhere nearby, probably. Megadeth's January album Dystopia came in several editions, including a deluxe copy with goggles and an access code to five tracks in full 360-degree form. The American hip-hop act Run the Jewels have just released a frankly terrifying VR video in which viewers are surrounded and threatened by armed men. There's also a 3D project called The Wave, launching in the summer, that allows DJs to create an entire world from which to deliver their sets - presumably people will dance at home, alone.

Certainly, Adams's point about isolation is valid. Putting on a

What are you looking at?

headset at Inition's experimental lab to watch the Philharmonia footage — in this case, a Samsung Gear VR, which is effectively a mobile phone slotted neatly into what looks like a pair of modern military binoculars — is unnerving, not least because I'm acutely aware of Inition's MD, Adrian Leu, watching me from the other side of the table.

After some brief titles, lights come up and you're sitting in the middle of the orchestra — and, yes, you turn and gawp, but you feel a fool for the way you spin and stare. It's like realising you're singing out loud when you're walking down the street with headphones on.

That level of disembodied embarrassment is turning out to be a feature, not a bug. TheMachineToBeAnother.org shows you video footage of someone else's body when you look down — as you move your hand, the hand you are looking at moves. For documentarymakers, particularly those who cover conflict, this chance to empathise is irresistible. The war photographer Karim Ben Khelifa has created a game called

You find yourself a

foot away from the

principal conductor

The Enemy, in which your opponents

"The frame no longer exists, but the

goal remains – putting you in someone's

shoes to help you understand them

better," says Danfung Dennis, founder of

Condition One, a virtual-reality docu-

mentary start-up. Dennis began his

career as a photojournalist, covering

Iraq and Afghanistan for The New

York Times, before moving

into documentary with

2011's Hell and Back

explain why they are fighting.

to recovering from wounds back in North Carolina. It won awards, but Dennis found it "too flat and passive to create the immersive, empathic and compassionate experience I was after".

Condition One has also created a behind-the-scenes with the dancers Beckanne Sisk and Christopher Ruud on the eve of Ballet West's Nutcracker, as well as a film with traditional Navajo dancers and a wildlife documentary called In the Presence of Animals.

The big question is, is this a new dawn that rewrites the rules of documentary, movies and music videos? Or another 3D TV, launched with huge fanfare in 2010

and resoundingly ignored by viewers and film-makers alike? In February, LG was reported to be halving the number of 3D sets it is producing this year, while Samsung is removing the technology from sets from now on.

"There are issues to overcome,"
Leu admits. "People aren't keen on
wearing the headsets for longer than
an hour. The interesting area is performance — you could see virtual-reality
stage performances distributed by
National Theatre Live around the world."

Certainly advertisers, another buffeted industry, seem keen on VR's promise of total attention. At the SXSW festival in Austin this month, McDonald's created a VR advert for the HTC Vive headset. In one hand, you have a paint wheel; in the other, a paintbrush/paintgun. You can draw, colour and generally make a mess while McDonald's logos flash from all sides and Happy Meals drift about. wait-