THE TIMES

Monday May 27 2019 | THE TIMES

Business Working Life

Virtual reality makes big leap into hands-on training

TIMES PHOTOGRAPHER RICHARD POHLE

Tom Symonds is happy to show how Immerse's technology can help to train workers in a wide range of industries and across multiple locations worldwide

GOING FOR GROWTH

The chief executive of Immerse believes the firm has global potential, reports **Caroline Bullock**

On the day Islamic State invaded Mosul, Tom Symonds had the misfortune to be uncomfortably near by. As fighters took control of Iraq's second largest city, Mr Symonds was pitching his start-up's virtual reality-infused training concept to a team of drilling engineers at a Kurdish oil refinery.

"On the way to the site, the taxi driver told me to lie down on the back seat under a blanket as there were people rushing towards us trying to escape Mosul." He didn't win the business, "but it was probably the only time I didn't mind. I wasn't in any rush to keep returning to the area too often. It was all pretty terrifying."

Oil and gas remains a key sector for the company, called Immerse, but subsequent meetings have proved both more fruitful and, mercifully, less dangerous. Shell is the latest global player to buy into a vision that applies virtual reality technology and 3D simulations associated with gaming to enterprise training procedures. It can provide a safe, realistic but cheaper alternative to training in the field and should be much more engaging than long sessions of death by Powerpoint in the classroom.

Multiple participants in disparate locations can interact in real time in a virtual environment via VR headsets, represented by avatars that may stack a virtual package in a warehouse, perform a CT scan or, in Shell's case, simulate storage tanker overspills to improve a team's emergency response performance.

The oil major's decision to integrate the Immerse technology platform with its internal systems is a big endorsement for the 20-strong team at the start-up and a key driver of last year's 170 per cent revenue growth, which also was bolstered by further new business with DHL and GE Healthcare.

"It took about a year and half to prove we were worthy of partner status with Shell, as they were never going to sign up to a three-year licensing deal with a small company without vigorous testing of the solution plus total confidence in us," Mr Symonds, 54, said. "But the technology we've been developing for the last four years is strong and does what it says it will. Once the headset is on and you are transported to that virtual world, your senses are flooded, giving you a razor-sharp focus on a particular problem. Think how easy it is to be distracted when you're sitting learning in a meeting room, how your attention can wander even when a bird flies past the window."

Aside from a heightened focus, the ability to create 3D simulations of hostile and high-risk environments resonates with businesses that can train their workforces safely at a fraction of the cost with no need to go to the actual site and shut down live equipment, according to Mr Symonds. "When we demonstrated to Qinetiq [the defence company] that we could bring multiple Royal Navy personnel from different locations together for training in a virtual submarine, they just couldn't believe it [or] how real it seemed. It's pretty transformational in terms of how we will train the future workforce and improve business and human performance. It's definitely not a gimmick."

Mr Symonds is used to making a robust case, amid cynicism over the prospects and potential of VR. He admits that a certain leap of faith is needed to recognise the value of the technology beyond niche applications and its entertainment roots.

"For a while we've often relied on people being curious and courageous, but thankfully attitudes are changing. It still comes down to the proof of concept, of getting people through the office door and encouraging them to experience VR for themselves. That's when people get interested and change opinion."

Less easy to remedy have been seismic fluctuations in the oil and gas industry that at times has accounted for 90 per cent of the four-year-old Immerse's business. Amid the boom of 2013-14, when oil prices soared to $100 a barrel, a £50,000 contract with Chevron expanded to £550,000. Things imploded a year later with a downturn in which prices plunged. Only "sheer grit" and investor loyalty saved the business, Mr Symonds said. "Fortunately, I was able to convince them that what we had developed was powerful enough and that I wasn't going to give up. We're fortunate to have three or four patient and deep-pocketed investors who have stayed with us from the outset." Backers include Leaf Investments and IBIS Capital, the early stage specialist firms. "If [they] had pulled the plug, then, yes, it probably would have been the end."

In fact, the fallout of the oil price crash has appeared to have had a positive effect. Mr Symonds learnt a lesson that will be familiar to many small business owners, realising that no longer could he put all his eggs in one basket. Oil and gas now represents about a fifth of a much more diverse client portfolio, while a valuable tweak to the platform has switched the focus from developing all training content in-house to handing more control to customers.

While international clients are served mainly from the company's London base, Mr Symonds is eyeing presences in Houston, Texas, to capitalise on oil market opportunities, and in New York, to explore the emerging health and pharma training market, by the first quarter of next year. More globetrotting will follow. "As entrepreneurs," he said, "we've never been scared to hop on a plane."

Headsets are doing it for themselves

For start-ups hoping to sell virtual reality to businesses, innovation in hardware is propelling the market forward (Caroline Bullock writes).

HTC and the Facebook-owned Oculus, the headset manufacturers, are leading the charge. The new Oculus Quest is aimed at industry as well as gamers, while HTC's Vive Focus is aimed squarely at business.

"Enterprise customers are looking for headsets with powerful capabilities for their projects and manufacturers have been responding with some powerful iterations to their hardware," Tom Ffiske, editor of Virtual Perceptions, the website, said. "For example, HTC offers deeper data analysis by capturing user feedback in real time."

The key benefit of the new breed of headsets is ease of use. Whereas VR users traditionally have been tethered to the screen or console by wires, the Oculus Quest features a wireless, standalone headset that handles all the processing power on its own.

According to research from the International Data Corporation, standalone models are expected to account for 59 per cent of all VR headsets by 2023.

Tim Fleming, chief executive of Future Visual, a Brighton-based VR studio whose clients include John Lewis and Peugeot, said: "With greater awareness of their problem-solving capabilities and standalone models that get around the perceived health and safety hazards associated with their use, we should see more take-up."

He said he was seeing most interest for VR in training applications that are "very hard or impossible to do in the real world, such as aviation and emergency response training".