

L'OBS

Virtual Reality enters the office!

By Dominique Nora - September 25 2016



Screenshot from Manzalab's shared Virtual Reality module. (Manzalab)

Virtual reality programmes aren't just for video game fans. Job interview training, fighting discrimination and inspecting industrial facilities are just a few of a whole host of applications being developed by the business world.

A manager slips on a virtual reality headset and enters a virtual world, created on a computer, that reproduces his everyday environment. He looks at himself in a mirror but doesn't recognise himself, and for good reason; his "avatar" is a woman! Returning to his office, the man endures the salacious banter of a male colleague, and later on in a meeting is constantly interrupted by others. Scenarios like these are used in an innovative programme, commissioned by the consultancy group Accenture from the French SME Manzalab. "We've been developing our gender equality policies for twelve years", explains Céline

Laurenceau, Managing Director - Talent & Organization at Accenture France. But this new project, which will be tested in September, goes much further:

“This virtual reality programme is truly designed so that you can experience someone else’s life, with the aim of developing empathy in the workplace.”

If it works well, it will be deployed among top management and even extended to other issues such as disability.

Did you think that virtual reality (VR) was just for zombie-killing teens? Think again! VR is already used by some practitioners to treat people’s fears of crowds, planes and even the tube, and due to the equipment becoming more widely available is now taking its first steps into everyday working environments.

The pleasure of gaming

Of course, “fixed” virtual reality (such as Oculus Rift, Sony PlayStation VR or HTC Vive) is still expensive, requiring a headset that’ll set you back between 400 to 1,000 euros, and requires a powerful desktop computer to run.

However, mobile headsets can be found on the market for under 100 euros (Samsung Gear, Homido, 3d VR Box or Google Cardboard), compatible with smartphones. These are not to be confused with “augmented reality” programmes such as Pokémon Go - the embedding of virtual objects in the real world - which do not require a headset.

There is still progress to be made with 360-degree VR programmes in order to eliminate the feeling of motion sickness experienced by some users. But already, in addition to Accenture, EDF, Crédit Agricole, H&M, Orange, and the Association pour la Formation Professionnelle des Adultes (Afpä, the French Adult Training Association), a growing number of companies and institutions are experimenting with them for a wide range of applications.



Clément Merville

Clément Merville, President and Founding Partner of Manzalab, explains its approach:

“We disseminate knowledge and awareness through the pleasure of gaming. A transgression in business!”

This former telecom engineer and HEC graduate who started his career in the video gaming industry created the company in 2010 with 4 partners, and according to Idate, is now one of the five French leaders in serious games. At its offices near the Louvre, which are already too small with some 35 employees crammed into mezzanine offices, develops around twenty programmes: a third for research, and the rest for its customers. “We’re a doubly unusual start-up”, the boss laughs. “Profitable from the start, we self-financed. What’s more, we don’t encourage long working hours, everyone leaves at 6 pm.”

The future of e-learning

According to him, the success of “serious games”, compared with traditional, more passive e-learning, is explained because they’re a good fit with the “Four Pillars of Learning”, identified by Stanislas Dehaene, Researcher in Neuroscience and Professor at the Collège de France. Firstly, animated images are able to captivate and channel one’s attention. Secondly, they promote active engagement, as these scenarios require the learner to remain constantly alert in order to make choices. Thirdly, they provide immediate

feedback, allowing the participant to learn from their mistakes and see the correct answers rewarded, which in turn enables them to instantly put things right. And lastly, they allow the user to consolidate what they have learned and gradually acquire automation. This is a phase in which sleep plays a crucial role, hence the necessity to split up the VR sessions over time.



Manzalab's "Virtual Lounge" for Orange (interface for the OCS channel)

"Immersion in virtual reality is the future of online learning", confirms Clément Merville, "because the more realistic the situation, the more emotionally charged it is." Advances in neuroscience also validate the effectiveness of VR. For example, the NeuroVirtual study conducted on behalf of the French Government Armaments Agency, in association with the Cognitive Science Lab of the École Normale Supérieure in Paris, use an immersive simulator for learning to fly a helicopter alongside an Oculus Rift headset, which, coupled with an electroencephalogram headset, records the pilot's brain activity in real-time.

Comment from Merville:

"We can now measure the cognitive load, which is an indicator of the degree of understanding of a notion. The learning scenario can therefore be personalised, depending on what is - or is not - learned."

The 3 benefits of VR

Spotted by the consultancy group Accenture, Manzalab joined its prestigious Open Innovation programme, with a presence in its labs in Paris, Sophia Antipolis and San Jose. This passport to success also opened the door to an extensive customer network. "Our sponsors are all large groups or

organisations, and developing these types of programmes is only justifiable if they're deployed across a large number of people", explains Clément Merville. Céline Laurenceau of Accenture sees three types of benefits in virtual reality.

- Firstly, it "saves time", since people are trained without leaving their working environment, whether that be their store, factory or office.

- Secondly, it "replicates the actions of a job", as 80% of real learning is done on the job.

- And lastly, "it develops strong empathy", through the experiences that take place.

Unlikely to succumb to passing fashions, the Afpa is also in favour of "serious VR games". "This tool improves our effectiveness, while respecting our three basic educational principles: learn with professionals, through real scenarios and in a group", says Christophe Sadok, Director of Innovation.

The organisation is therefore in the process of incorporating a virtual store programme into its sales and customer relationship training courses, where several trainees and trainers can interact through avatars:

"This opens up many scenario options, especially for developing the right attitude when faced with conflict situations or dissatisfied customers."

Meanwhile, EDF is testing virtual reality for maintaining its nuclear power stations. "We can put several people in the same virtual environment, at the same time, even though they are in geographically different locations", says Clément Merville. "They can move around this 360° universe and give specific instructions to prepare for an operation." One of its associates has also created a new company Perfect Industry, a 30% subsidiary of Manzalab dedicated to industry 4.0.



Screenshot from Manzalab's shared Virtual Reality module (POC created for EDF).

Finally, this technology is of great interest to the content industries. In France, subscribers to the Orange Cinema Channel (OCS) will, this autumn, discover an application that will enable them to teleport virtually into the lounge of their dreams and watch their films through a VR headset. For now it is a sort of “beta-test” that Orange is offering to its OCS subscribers that already have the Samsung Gear and a compatible mobile, or the PlayStation VR.

The IT platform of the future?

From Hollywood to Silicon Valley, virtual and augmented reality is celebrated as the new match made in heaven between computing and entertainment. In the future, the most popular video games will be in VR, museums will offer exhibitions completely in VR and film producers will design extensions to their films in VR as well. Virtual reality could easily become the “platform of the future”, Facebook’s Mark Zuckerberg has invested 2 billion euros in Oculus, whose Rift headset is released in France this week. Microsoft, for its part, is putting the finishing touches to its HoloLens project. Tested in particular with Volvo and NASA, this augmented reality headset is now available for companies.

As for the secretive immersive programmes company Magic Leap, it has opened a laboratory in San Francisco with the Disney subsidiary, IL&M. Having raised huge sums from heavyweights such as Google, Morgan Stanley and Warner Bros, this start-up is valued at 3.7 billion dollars without yet having released a single product! By this measure, Manzalab looks like a nugget of French Tech.