Is AI hogging immersive technology's limelight?

ChatGPT's likely answer: 'yes'. Realistic answer: 'yes ... for now'.

ChatGPT and its artificial intelligence-inspired kin are filling headlines and firing imaginations. For the world of **augmented and virtual reality (AVR)** it means having to share the limelight... for a while.

But when excitement over chatty robots settles, experts are predicting that it will be immersive technologies that people are likely to 'experience' in the near term, and 'remember' in the long term.

<u>Gartner</u> actually sees them as a "mutually beneficial" collection or subset of technologies that enterprises will increasingly adopt in the coming years. Vendors will be need to figure out how to get more artificial intelligence functionality out of the cloud and into the edge, the tech research company continues, where AVR can be better leveraged.

Already today, thanks to greater computing power and expertise in the AVR sector, immersive technologies have established themselves as much more than a novelty.

"Technology like virtual reality/augmented reality is stepping inside an alternate reality, deeper than the real world, where users have complete control over their environment in a highly engaging and immersive way," as <u>FutureSide</u> neatly explains in a feature on the "benefits of augmenting the world".

Indeed, research has sped forward in recent years and applications now range from frivolous fun to highly practical to truly life-saving. The technical maturity and growing reach of AVR have not escaped the notice of markets and the investors that drive them.

Immersive solutions can be seen in business applications to improve communication, collaboration and accessibility. They are in tools for workplace training and developing new skills. And they drive various 'serious games' applied to everything from medicine and cognitive health to risk-prevention, emergency responses, and pilot simulations.

Immersive technologies used to create realistic 3D environments are increasingly applied to product design, development and testing. They also act as a conduit for innovation in a wide range of other industries, from architecture and the automotive sector to creative and cultural pursuits.

In marketing and advertising, it is a powerful means of personalising experiences and raising online engagement using 'gamification' techniques, thus boosting sales. While more broadly, businesses can use visualisation tools in routine tasks, such as optimising production and finding cost-savings.

As the cost of VR headsets comes down with scale, and new ways of integrating AVR into other devices, haptics and applications emerge, experts imagine a further expansion of the immersive

universe – or what the EURAXESS WORLDWIDE community is welcome to call the *Immersiverse*!

A creative endeavour

The growing use of AVR in different sectors offers some insight into its impact on society and the economy today. Take the creative and cultural industry (CCI) as a prime example.

Immersive technology has fundamentally changed the way people consume content. Using digital storytelling combined with audio-, visual- and extended reality, companies offer memorable, emotional 'experiences' not just 'products' and 'services'. This strengthens customer engagement and loyalty, so the theory goes.

Tour operators, museums, and exhibitors can augment physical objects and places with additional animations, graphics, and other contextual features to transform and even individualise the visit or journey.

In Europe, the games industry was an early adopter, but with improvements in the technology, proliferation of broadband, and advances in mobile (5G), AVR is opening up to other leisure sectors, and the transport industry, according to developments communicated by the 5G Automotive Association (5GAA).

The Covid-19 pandemic further accelerated the use of digital technologies, and AVR, in particular, as the culture and museum sector got creative with enhanced "virtual" tours and performances. Architects and designers dived into computer aided design (CAD) in combination with VR to show clients how, for example, a rebuild or new product might look.

More and more startups are entering (or adopting) the immersive technology domain, which is a further indicator of the growing interest in Europe. One example of a young Estonian company using AVR for cultural and creative purposes is <u>Ready Player Me</u>, a metaverse 3Davatar creator platform.

Another is Denmark's <u>Books & Magic</u>, which develops augmented reality storybooks combining physical books and an app for children to immerse themselves in the story. In the film and broadcasting world, *zLense* has developed technologies for real-time 3D scene scanning, and a "virtual production platform".

A 'virtual' European mindset

The European Union has been at the forefront of many of these innovations, as part of its <u>Digital</u> <u>Europe's Programme</u> – and seen through the lens of its twin digital and green transition ambitions under the European Green Deal.

With an overall budget of €7.5 billion, Digital Europe provides strategic funding in five key areas: supercomputing, artificial intelligence, cybersecurity, advanced digital skills, and ensuring wider use of digital technologies across the economy and society.

AVR developments fall under several of these headings as well as activities under EU Research Framework Programmes – previously Horizon 2020 and currently **Horizon Europe**.

A Virtual and Augmented Reality Industrial Coalition (<u>VARIC</u>) was created, as part of the European Commission's 2020 Media and Audiovisual Action Plan (see the current <u>MAAP</u>) to make sure commercial developments align with key challenges and opportunities in the European AVR sector.

In 2021, the Commission also <u>announced a call</u> under Horizon Europe to create a VR Media Lab to "stimulate interdisciplinary cooperation and build prototypes of advanced solutions for the creation, distribution and consumption of new immersive and innovative products for media".

On the investment side, with a war chest worth €400 million (2022-2027), the EU-backed MediaInvest is looking to stimulate commercial innovations throughout the audiovisual sector. Funding is drawn from the Creative Europe MEDIA programme and the European Investment Fund's InvestEU equity package, among others.

More recently, the Commission hosted a European citizens' panel to formulate recommendations on a vision, principles, and actions to ensure that virtual worlds in the EU are "fair and fit for people".