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The Institution of Engineering and Technology

Safeguarding the metaverse

A guide to existing and future harms in virtual reality (VR) and the metaverse to support UK immersive technology policymaking.

The metaverse is a comparatively recent addition to the vocabulary of the digital media landscape. It is an umbrella marketing term that brings together related technologies such as virtual reality (VR), augmented reality (AR), the internet, computer gaming and digital communications. As a network of connected 3D virtual worlds, the metaverse provides increased positive opportunities in medical, leisure, creative and industrial sectors, allowing multiple users to interact in a virtual space without the need for real-world proximity. The metaverse also brings with it various threats and vulnerabilities for its users that need to be addressed at industry, regulatory and government levels.

Potential harms in VR and the metaverse

To safeguard the metaverse we must understand the harms users are exposed to.

Blurred lines between virtual reality and reality
VR has been shown to create false memories in pre-school aged children and to confuse the boundaries between fantasy and physical reality.

Harassment and abuse in VR
Harassment and abuse are common experiences for VR users when they spend time in open spaces where strangers can meet.

Physical injuries and property damage
It is vital that VR users set up their space adequately, moving furniture, removing trip hazards and letting others know that they are about to enter VR.

Disassociation due to inadequate off-boarding
VR disassociation relates to coming out of VR and no longer feeling connected to your body, and/or perceiving the physical world as not real, which can induce anxiety or panic attacks.

Desensitisation
Virtual reality can create conditions that desensitise participants to experiences that would have previously been shocking, anxiety inducing or frightening.

Privacy and data
If metaverse spaces evolve along the same lines as platforms operated by large tech companies, the economics underpinning metaverse platforms will be inextricably linked to the capture and commodification of user data.

Digital poverty
Limitations such as affordability, accessibility and trust can create a digital divide between those with and those without access to socially transformative tools.

Platform accountability – challenges of governance
In the VR space, it is not always clear who is responsible for monitoring or responding to illegal behaviour whether that be the individual, community, platform or government.

Read our full report at theiet.org/safeguarding-the-metaverse

Recommendations

When a person straps on a VR headset and enters a metaverse space, they deserve to keep their dignity, safety and rights. Governments have a responsibility to ensure this. Below are three recommendations for where policy makers should begin.

1 — Futureproofing the Online Safety Bill

Whilst the Online Safety Bill does apply to immersive technologies and the metaverse, it needs some adaptations to make it properly fit for purpose, rather than an afterthought. The bill is currently focussed on content that is published rather than activity that happens. In the metaverse, activity happens in real time. The bill must be adapted to work well in these live, active contexts that are more akin to real life events.

2 — Encouraging a positive, healthy metaverse culture

In the case of the metaverse and immersive technologies, user-driven safety features aimed at addressing harassment and abuse are not enough. The solutions being offered by technology companies for user safety, for instance the block and mute feature, are primarily instigated by the victim. By the time a victim has found the block, mute and report button, the psychological damage has often already been done. Technology companies must be incentivised to address these issues of harassment and abuse at their core - addressing the culture of these spaces - rather than placing the onus onto victims.

3 — Fast tracking immersive literacy in policy makers, regulators and politicians

A wide range of VR users say the metaverse feels like an unsafe wild west. This needs addressing. Governments, politicians and policy makers must be aware of these immersive technologies and the activity that occurs on these immersive platforms. Without this awareness, decisions will either be made in the dark, or not at all. Decision makers must experience VR and spend some time in the metaverse. The IET will offer support and access to equipment to support this development of immersive literacy.

This report was commissioned by the IET Digital Panel, an expert volunteer group that creates thought leadership and policy advice to inform government, regulators and communication sectors. The authors are Catherine Allen, Limina Immersive and Verity McIntosh, University of the West of England.

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