OPPORTUNITY #44

WHAT IF WE COULD BUILD AND ACCESS A NEW REALITY?

AN IMMATERIAL WORLD

Entirely new immersive environments offer a complete range of business and social activities and experiences in virtual reality

WHY IT MATTERS TODAY

Today, digital content can be superimposed on our real world physical environments through a smartphone, a tablet or a virtual reality (VR) device such as a headset, lenses or glasses.[439] This creates what is known as augmented reality (AR). Mixed reality (MR) allows us to experience a blend of the physical and digital worlds at the same time.[440] Mixed reality is at the centre of the reality–virtuality (RV) continuum conceived by researchers Paul Milgram and Fumio Kishino.[441] MR gives us an immersive experience mainly driven by AR as it can potentially apply to all senses, augmenting or substituting missing smell, touch and hearing as well[442] – hence creating what are termed 'digital realities'.

The market for AR/VR is expected to grow from just over $12 billion in 2021 to around $73 billion by 2024.[443] By 2030, AR/VR is expected to boost global GDP by a total of $1.5 trillion.[444] Around $204 billion of that growth is expected to be generated in the retail and consumer field, including film and gaming, as two-thirds of those who use AR use it for enjoyment and fun.[445] Other contributions to the value created by AR/VR will come from product and service development, healthcare, skills training and development, logistics, manufacturing, energy and maintenance.[446]

Companies with branded AR experiences are around 40% more likely to be considered by consumers, and nearly 3 in 4 consumers say they're willing to pay more for a product that promises the transparency that AR can provide.[447] Revenues in the digital media market are projected to reach nearly $300 billion in 2021 and around $420 billion in 2025 with video games driving just over half of the growth.[448]

Trade in digital assets such as videos, text, animated GIFs and audio is also growing fast. In the first four months of 2021 digital assets witnessed growth in trading volume of over $2 billion in the form of non-fungible tokens (NFTs).[449]

SECTORS

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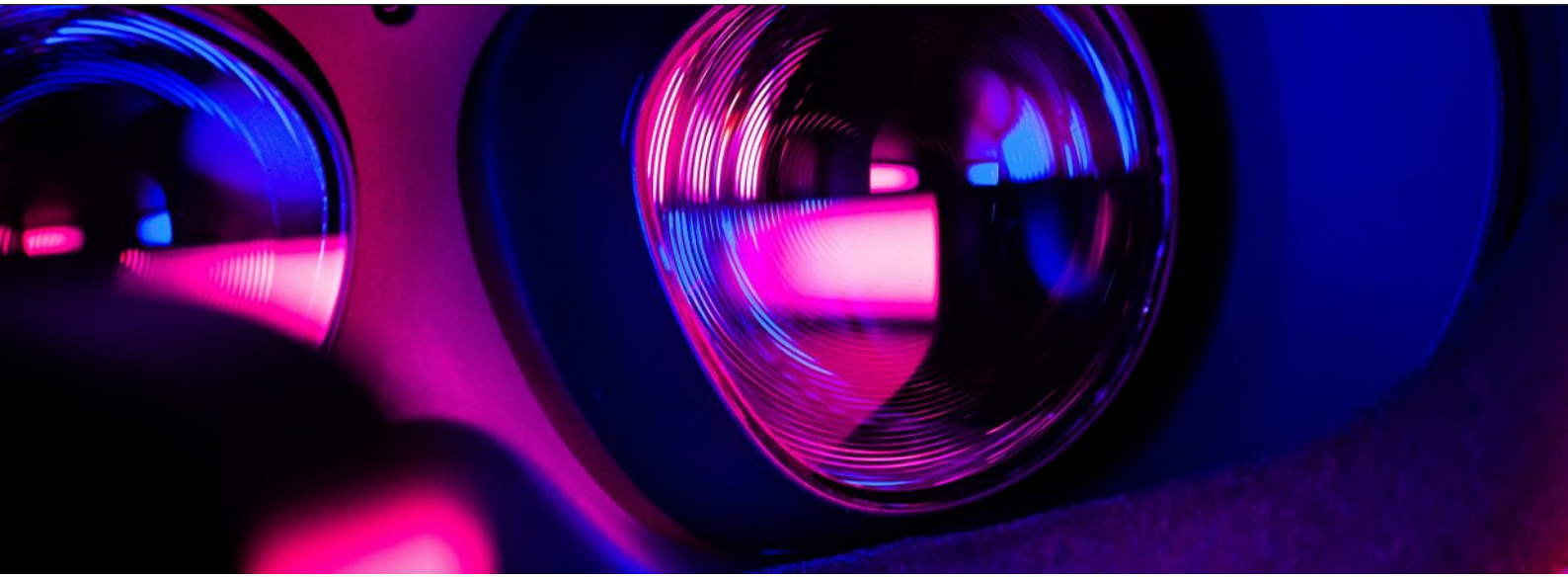

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THE OPPORTUNITY TOMORROW

Real-time data and advanced modelling power can enable the development of digital realities, including citizen avatars who interact virtually to simulate people's behaviour in response to different situations.

Globally agreed ethical and legal frameworks are needed to underpin more widespread access to information, transactions and relationship-building in AR, VR and MR worlds. Haptics (technology creating the experience of touch) and information overlays allow people to understand facts and form opinions by immersing them deeply in a virtual situation and providing all the necessary detail. In this way, realistic and immersive virtual environments increasingly help people improve their understanding of the issues and situations facing others.

Powerful immersive virtual systems can combine with new forms of value creation, driving economic, business and societal innovation. These environments open new possibilities for individuals in how they interact, work, express their own potential and engage with others.

BENEFITS

These immersive realities give decision-makers greater insight into the interactions across social, economic and ecological spheres. This also enables people to see other perspectives and to access different experiences, creating a greater sense of commonality.

RISKS

Risks include virtual environments being corrupted by deep fakes or cyberattacks and unequal access to VR systems, creating information divides. A risk of malicious harm due to large-scale misinformation campaigns and sentiment manipulation.