

Welcome – to the – metaverse

BY ALEXANDER LARSEN



Brave new world or dystopian digital nightmare? Whichever it turns out to be, it is time to get ready for the metaverse

The last few years have seen the growth of technologies such as blockchain, cryptocurrencies, NFTs and the further integration of AI into most technologies. However, it is the use of virtual meeting technologies that most people will be most familiar with, having had to navigate their way through platforms such as GoToMeeting, Zoom and MS Teams over the last two years due to COVID.

While these have been invaluable to businesses and employees alike during a two-year period where working from home (in isolation) became the norm, they are limited with regard to interactivity and usefulness. This could all be set to change with the introduction of the so-called metaverse. The problem the metaverse hopes to solve is to make global connections online more immersive, connected and collaborative. No longer will we simply look at a face on a screen, but rather, we will be able to read body language, be placed in a virtual office working on 3D designs or participate in networking events on a virtual beach.

Zoom on steroids

Essentially, the metaverse is Zoom in a more immersive environment where you can better interact, communicate and collaborate with other users. Some people wrongly assume it must be driven by virtual reality (VR) or augmented reality (AR) or even be driven by blockchain. While this certainly adds to the immersive experience,

security and decentralisation, it is not a necessity for the metaverse to exist. In fact, it exists already without these technologies. Microsoft are already about to roll out Mesh for MS Teams, and games already exist which are made up of highly immersive 3D worlds where gamers interact, co-operate and build. Some of the best examples of games include Minecraft and Roblox, which were developed as far back as 2006.

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Nonetheless, the main focus of the metaverse going forward is likely to be how much more immersive and interactive it will be with the introduction of new technologies such as VR, AR and equipment that allows haptic feedback such as gloves, clothes and chairs. Another development will be the rise of decentralised platforms enabled by Web 3.0 and blockchain. Users will have more control and the ability to build worlds and create businesses. It will be a creator economy and one which no company or government can shut down or manipulate through software.

Meta has been investing billions into the VR headset technology over the last few years and has announced \$10 billion to be spent this year and are teasing

a new headset (Project Cambria) that is believed to be lighter and more comfortable to use. They are also focused on subsidising the headsets to ensure it is affordable for everyone. This is similar to the Microsoft strategy of selling the original Xbox at a loss to encourage adoption in order to challenge PlayStation. Competitor businesses are developing their own VR glasses.

The metaverse can also utilise

other immersive technologies, such as Apple's spatial audio (essentially 3D immersive sound) technologies, that would make metaverse meetings feel far more realistic, essentially placing voices all around you and adapting to which way you are facing. Augmented reality is also used extensively in apps on phones, for example, from museum exhibitions to games and home design apps – all of which are adaptable to the metaverse.

Finally, blockchain technology, specifically cryptocurrencies and NFTs, will play a very large part enabling the creation of decentralised currencies and items that can be transferred across games and productivity applications and will ensure that users (and their avatars) will

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own assets in the metaverse. It is also blockchain technology that will allow decentralised platforms to appear.

When not if

Prior to COVID, less than 10 per cent of people worked online or from home; now estimates put that proportion at 20 to 40 per cent. COVID led to the success of Zoom and the growth of MS Teams, which have become everyday tools that we would seldom have used previously. If we are expecting this type of working to continue, then it is only natural that developers will continue to develop more interactive software. It's also clear from organisations' appetite for digitisation over the last couple of years that spending on technology is likely to continue too.

This is only an indication of short-term adoption. If we look forward a decade, we can see that the metaverse is almost certain to happen. Currently,

six out of ten teens spend time online with friends daily, and it's becoming increasingly normal for people meeting future partners through online games and apps. In addition to this, there are a large number of young people who are making money out of their digital presence, either as a crypto trader, influencer, reviewer or a gamer sharing their videos online (or playing live) as well as a host of other things that most people couldn't even imagine just a few years ago. This is a generation growing up in a virtual world. For further proof, a staggering 50 per cent of nine- to 12-year-olds are already playing Roblox and Minecraft. The metaverse promises to expand these virtual worlds into one space where people can actually own things across platforms and feel more absorbed, essentially bringing it closer to the real world.

Global corporations are also already entering the metaverse, and the technology could bring

business benefits to many sectors (see *Why enter the metaverse?*).

Pricewaterhouse Coopers (PWC) has bought property in The Sandbox (a metaverse) while JP Morgan (who famously called bitcoin a scam) is the first bank to enter the metaverse opening a lounge in Decentraland. McDonald's, Walmart, Samsung and Chipotle are also all involved alongside fashion chains such as Gucci and sports chains like Adidas who are selling virtual clothes for avatars. As if that's not enough, Barbados is opening up a virtual embassy in Decentraland!

Meta risks

The metaverse brings with it new risks. These include data security, social manipulation, social monitoring, addiction, trolling, bullying and employee harassment.

Data is already an increasing concern for organisations and individuals alike. From social engineering to hacking incidents, organisations are spending large amounts to protect their data. The metaverse increases the risk further in a variety of ways. For one, more data will be stored about us in the metaverse than probably anywhere else, making it a focus area for hackers, who will potentially be able to hack VR headsets or the platforms themselves. The metaverse will also allow hackers to implement more complicated social engineering techniques to acquire relevant information to steal data. In addition, the amount of data gathered by corporations on customers could balloon – including, potentially, brain wave activity from VR sets.

While this offers a huge upside for companies, it's potentially a nightmare for the general



WHY ENTER THE METAVERSE?

The metaverse is essentially a secondary global economy waiting to be taken advantage of that may not only help organisations but can help people too.

Business

We can expect businesses to use the metaverse to collaborate with suppliers and contractors on developing better products or interact more closely with customers. That could see the introduction of virtual shared workspaces and an ability to have more effective virtual training that focuses more on gamification. Conferences could curate some of the greatest minds in the world where they could be invited to speak or network and have real conversations in different parts of a virtual venue.

Education

Universities have the opportunity to tap into a global population looking for world-class education. Limitations such as lecture hall space, accommodation and costs to students could be greatly reduced. Classes could be interactive with every student being able to see 3D models of what the lecturer is explaining.

Immersive commerce

Online shopping could change completely with a virtual supermarket mirroring a flagship store being created where customers can browse all the items and put them in a virtual basket. Some furniture stores already let you place their furniture in your room using augmented reality to see what it looks like before purchasing, and this technology could develop even further in the metaverse.

Real Estate

Whether it's due to a busy schedule or limitations of travel abroad or COVID restrictions, the metaverse allows houses that are for sale to be created virtually so that buyers can get a real feel for the properties

they are looking at. While virtual real estate may seem far-fetched, JP Morgan already believes insurance and mortgages are all potential services that could make money in the metaverse.

Travel and experience

The ability to have your tourist destination in the metaverse means more people can visit, with potentially fewer physical visitors causing overcrowding, and better preservation of sites. In the future, for instance, we may be able to virtually walk through and see every hieroglyph on every wall and every chamber of the pyramids.

Events

Music concerts have already been held in the metaverse and have proved popular both for fans and musicians alike – everyone gets a front seat to their favourite artist.

Games

The metaverse will open up gaming to become an even more social experience. The decentralised nature of the metaverse will also create opportunities for anyone to become a creator and get paid for it.

Advertising

Considering all the opportunities for businesses, individuals and customers, as well as the number of potential visitors to the metaverse, there is a huge opportunity for advertising. The difference between real-world advertising and metaverse advertising is that advertising can come in any shape or form and be accessible a much larger audience.

public, who will be bombarded from all angles with advertising and in many instances not even realise it. Subliminal messaging throughout the metaverse includes potentially flashing images that users won't even register. Other methods would be to plant actors into the metaverse who could target and befriend people based on data analysis methods mentioned above and mention websites to visit, places to eat or even offer investment advice. Similarly, bullies and predators

would be able to more easily target children and interact with them by, for instance, offering digital gifts, compared to just sending messages online.

Mitigation

These risks are all significant enough that various regulations, some of which will be testing new ground, will need to be considered including limiting what developers can track through equipment, what data can be used for targeting advertising,

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what advertising techniques are acceptable and ensuring that laws are in place making it clear what kind of punishment to expect when behaving a certain way in the metaverse. None of this will be easy due to the fact that there will be numerous loopholes and workarounds and it will therefore require technical experts to work on these regulations and to constantly review and update them over time in order to close these workarounds.

Regulation will need to be introduced for other technologies too in order to better manage the risks. A benefit of blockchain technology, for example, is the fact that every transaction is saved to a block with no way of manipulating it. This allows law enforcement to trace transactions whether they are cryptocurrency transactions or NFT purchased items. Unlike cash, which is extremely difficult to trace and can be laundered, digital transactions will be ideal for identifying criminals and also for trying them in court. Currently

BENEFITS FOR RISK MANAGEMENT

From a risk management perspective, there are a lot of opportunities of using the metaverse. Firstly, training and gamification. Training programmes could recreate real risks that occurred or imagine new ones and put participants into the scenario asking them to identify where things could potentially go wrong, how things could be done differently and then running through how the risk actually played out. Such a highly interactive and immersive training will not only allow better learning but it will also leave a lasting impression that will allow better retention of information.

There is also an opportunity to improve emergency response, business continuity and crisis management exercises. Instead of traditional desktop exercises or stopping production at a plant in order to undertake larger exercises, exercises could be done more easily and in greater depth virtually, with all actions and decisions and movement automatically being tracked and recorded for lessons-learned purposes. Observers from the board or insurance companies could potentially be invited to provide assurance and potential business interruption premium savings.

Analysing risk can also benefit from this collaborative approach, from experts being able to join risk workshops or visit difficult-to-reach locations to project teams from various geographical locations being able to discuss, share experiences and visualise risks. This translates to supply chain too, where risk managers, company experts and other suppliers can be more involved during design stages to identify risks, ensure that there are no compatibility issues and work together to brainstorm solutions.



“ **Companies could plant actors into the metaverse to target and befriend people based on data analysis**


there is a lack of regulation around crypto currencies, and as a result law enforcement don't have the training or infrastructure to properly analyse transactions. With the right regulation, this could all change.


One regulation or action that would be effective and which seems inevitable, with the argument that terrorism, fraud, security and exploitation need to be stopped, is requiring moderation of the metaverse by either platforms themselves, or indeed, by law enforcement, who would essentially police the metaverse. If people are worried about data and privacy, then this measure will only increase unease, and it becomes a risk itself.

Virtual worlds

No one can be certain how the actual metaverse will develop. It promises huge opportunities for companies and individuals alike. It effectively provides a whole new layer of economy for the world at a time where we are crying out

for further growth opportunities.

But the risks are great too – as well as wider societal question to consider. Virtual worlds are made to reflect the real world but without the perceived inconveniences. This means the virtual world will be absent of things such as dirty streets or homeless people. This could have a negative desensitising impact on society and also increase the addictiveness of the metaverse to the extent that people are never disconnected to it and fail to look after themselves properly, impacting physical and mental health. While humans are excellent at adaptation, in the shorter term we can expect to struggle with many of these risks as the metaverse becomes no less optional for us than the internet. 

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