What's a 'Metaverse' Anyway?

Yan Barcelo

6-8 minutes

The 'metaverse' is a new high-tech buzzword, heavily promoted by Facebook CEO Mark Zuckerberg and other tech luminaries. (Not all, though. Twitter's Jack Dorsey calls it 'Dystopian') It promises, (among other things) that its denizens will be virtually present in 3D shared environments, not simply looking at such environments in 2D on a computer screen. These virtual 3D spaces will then be linked in a virtual universe where you will be able to see and participate with others (through avatars). Participation could include talking, playing, working, and you could even potentially be able to manipulate objects and exchange cryptocurrencies.

For example, in a 3D-type of Zoom or Teams session, you will not 'see people on your screen', you will be 'inside the screen', in the room as an avatar, talking and sharing documents and things with other avatars.

Some claim that this is the future of the Internet. "It will rather be an evolution of the Internet, a next stage," says Jonathan Mzengeza, portfolio manager of the Renaissance Global science and technology fund, toning down the hype, but still subscribing to the metaverse vision.

Not So Easy

The concept is easily formulated, but putting it into action "is not so easy", feels Benoît Ozell, associate professor at Montreal University's department of computer and software engineering. At this point, Ozell explains, "I can find 3D headsets that could represent my environment and myself. But how do I get an image of myself and of my colleagues into that environment – and in 3D? Sure, there are cameras that could allow that, but for the time being headsets don't integrate any."

And the metaverse aims at being more than just a single meeting room. The idea is to connect 'rooms/spaces/zones' into a seamless... metaverse. Not so easy. But not impossible. Many technologies and developments that exist separately are starting to coalesce. Where that has happened in the most convincing way is in AR (augmented reality) rather than in VR (virtual reality), implemented mostly in business and educational settings.

AR works mostly with glasses on which a computer image is projected, for example Microsoft's Hololens, directing you. "We did an 'augmented' lumber yard, says Ozell, in which an operator gets additional information through his lenses: 'this is where you find 2X4 beams', 'this is where recycled materials are dumped', etc." On manufacturing floors, operators can see images of how pieces fit together, enhancing efficiency and safety, and allowing more complex assemblies to be performed.

But this is barely day one in the creation of the metaverse, which will emerge "at the intersection of myriad technologies: Internet,

multimedia, video games, social media, edge computing cryptocurrencies," says Mzengeza, "We haven't reached full immersion, but the parts that will allow that are gaining traction."

The Gaming Portal

Gaming platforms are the leading area where the metaverse is slowly taking shape, Mzengeza believes, a view Morningstar equity analyst Neil Macker agrees with. There, participants already interact and 'live' inside massive multiplayer online *games*, or MMOs, like *Fortnite* and *Minecraft*. Some even make six-figure revenues in real life by selling virtual items and real estate online. "Concerts by real life rock groups have been organized in Fortnite," Macker points out.

However, the environments are still 2D landscapes that you look at on a computer screen, the jump to 3D still a far cry away. Having said that, online gamers are potentially the first settlers of a future metaverse, already living inside representations of imaginary worlds.

Upgrading to a full-blown 3D metaverse poses some present universe challenges which go beyond technology. Some are anatomical: wearing a 3D headset for more than an hour causes fatigue for Ozell, especially in the eyes which tire of focusing always on a specific place, something we can avoid with a 2D computer screen by moving one's gaze elsewhere. Some people feel dizziness and nausea brought on by the sharp difference the body experiences between moving images and a static position.

Two key challenges relate to psychology and security. Unless images are exactingly true-to-reality, the metaverse will probably have to settle for rather approximate representations to avoid what Ozell calls the "uncanny valley", a vague sense of panic similar to what one can experience in a horror movie when apparently real objects are subliminally "unreal", like a character that blinks only every minute or so. Also, "would you want a headset with a camera to spy around everywhere in your home and broadcast it to the world?" asks Ozell.

Investing in the Metaverse

Is the metaverse gaining commercial traction? Mzengeze believes so. Macker is not so sure. Yes, MMOs are popular, VR headsets are selling, powerful chips are being built, but all that a metaverse still does not create. Will the metaverse materialize and is it a place where investors can breathe and prosper? Macker is mildly skeptical. "It is creeping along on many fronts, with players like Epic Games, <u>Roblox</u> (RBLX), <u>nVidia</u> (NVDA) and Facebook (FB). But I think no one is really there yet," he says.

Mzengaza is more bullish. He recognizes that no one is really there, but he believes the metaverse gambit will eventually pay off. His fund invests in <u>Tencent</u> (0700), the Chinese company that generates 50 to 60% of its revenues from gaming. Tencent owns shares of Epic Games and Roblox, and Mzengaza thinks "it is well positioned for the metaverse," he says.

Another of Mzengeza' metaversal plays is crypto payment provider <u>Nuvei</u> (NVEI), where he expects revenues to grow 90% this year, from \$375 million last year to \$700 million at the end of 2021. Of course, Nuvei is present in other areas like ecommerce and gambling, but because shifting money between the virtual and the real world will become increasingly important (what is called "offboarding" and "onboarding"), it is well positioned to win big. Remember, though, the metaverse <u>is a theme</u>, and when investing in a theme, you are <u>making a trifecta bet</u>. You bet that you are: 1) picking a winning theme; 2) selecting a fund that is well-placed to survive and harness that theme, and 3) making a wager when the market hasn't already priced in the theme's potential. It is difficult, if not impossible, to consistently get all three right.