

Metaverse Glossary

Defining the metaverse

Metaverse:

If the contemporary internet experience is two-dimensional—meaning you browse and scroll through it on a screen—the metaverse is 3D. You'll be “walking” through it via connected headsets or glasses.

It is unclear whether there will be one metaverse or many different separate metaverses (or any metaverse at all, really), but this seems to be the one constant: The metaverse is an immersive next-generation version of the internet, likely rendered by virtual or augmented reality technology.

The venture capitalist Matthew Ball, whose writing on the metaverse has influenced Mark Zuckerberg, describes¹ the metaverse as a “successor state to the mobile internet” and a “platform for human leisure, labor, and existence at large.”

Meet your digital twin.

Mirrorworld:

A mirrorworld is a digitally rendered version of the real world where there are virtual counterparts of real-life people, places, and things. Mirrorworlds are often found in sci-fi, including Netflix's *Stranger Things*, *The Matrix* film series, the novel and film *Ready Player One*. The metaverse could be a mirrorworld designed to precisely reflect the physical world, or could resemble an entirely invented world one might encounter in a video game.

Skeuomorphic design:

The wonky term essentially means that virtual objects will be made to closely resemble real-world ones. The metaverse could resemble the physical world, in that it will often appear tethered to the physics and designs of our reality, but it doesn't have to be identical to it.

Digital twin:

A digital twin is a virtual version of a real-life object or structure. The term was first introduced in the 1991 book *Mirror Worlds*² by David Gelernter, digital twin technology was first used by NASA³ (PDF) to run simulations of space capsules in 2010. Microsoft, in particular, has emphasized⁴ the need for digital twin technology in building the metaverse.

Avatar:

An avatar is your persona in a virtual world. This digital rendering of your appearance may look like you, resemble a cartoon (as popularized by Snapchat's Bitmoji and Apple's Memoji), or appear as fantastical as Fortnite's “skins.”⁵

What's the difference between VR and AR?

Virtual reality (VR):

VR is an immersive experience where one puts on a headset and sees, and can operate within, a digital world. VR currently uses full headsets rather than glasses, immersing the user in a 360° virtual world that they can move around in—as long as they don't bump into physical walls.

Augmented reality (AR):

AR is a digital overlay projected on the real world. Think of Niantic's *Pokemon Go*, Snapchat's dancing hot dog, or even wearables like Google Glass. While Google Glass never took off, we could soon be peering through AR-connected glasses like Facebook's *Ray-Ban Stories* or Snapchat Spectacles.

Mixed reality (MR):

Mixed reality incorporates elements of VR and AR, but the exact definition is murky. A person can interact with virtual and real-world objects, and virtual objects can interact with real-world ones. For example, the Snapchat hot dog can dance across a table without falling off the edges.

Extended reality (XR):

Extended reality is a catch-all term for VR, AR, and MR, concepts that often overlap. Eventually, the lines between VR, AR, and MR might blur as the metaverse becomes a reality—making XR a more appropriate term.

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Navigating the many metaverses.

Neal Stephenson:

Stephenson is a science fiction writer who coined the term “metaverse” in his popular 1994 novel *Snow Crash*. In the novel, the metaverse is a persistent virtual world navigated by the aptly-named protagonist Hiro Protagonist.

Massively multiplayer online role-playing game (MMORPG):

MMORPGs are interactive games that form the basis of what many feel will be the metaverse. Millions of people interact in shared spaces—playing games, building things, visiting virtual shops, and even going to concerts. Examples include *Fortnite*, *Roblox*, *Minecraft*, or the NFT-based *Axie Infinity*.

Oculus and Horizon Workrooms:

Facebook bought Oculus for \$2.3 billion in 2014. While it’s been a leading VR platform for years, Oculus may now be the portal for many hoping to peek at Facebook’s vision for the metaverse. Facebook has already introduced a virtual work experience called *Horizon Workrooms*, a sort-of VR version of *Zoom* with legless avatars.

Second Life:

An online virtual world, introduced in 2003, *Second Life* is an early example of social experiences in the metaverse. Although not quite an MMORPG (it’s not designed for game-play), *Second Life* remains an open-world social network with avatars. The metaverse might resemble a VR version of *Second Life*.

Nonfungible tokens (NFTs):

Blockchain-based certificates of authentication for digital objects, which could allow proof of ownership of goods in the metaverse.

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