Decentralized Web
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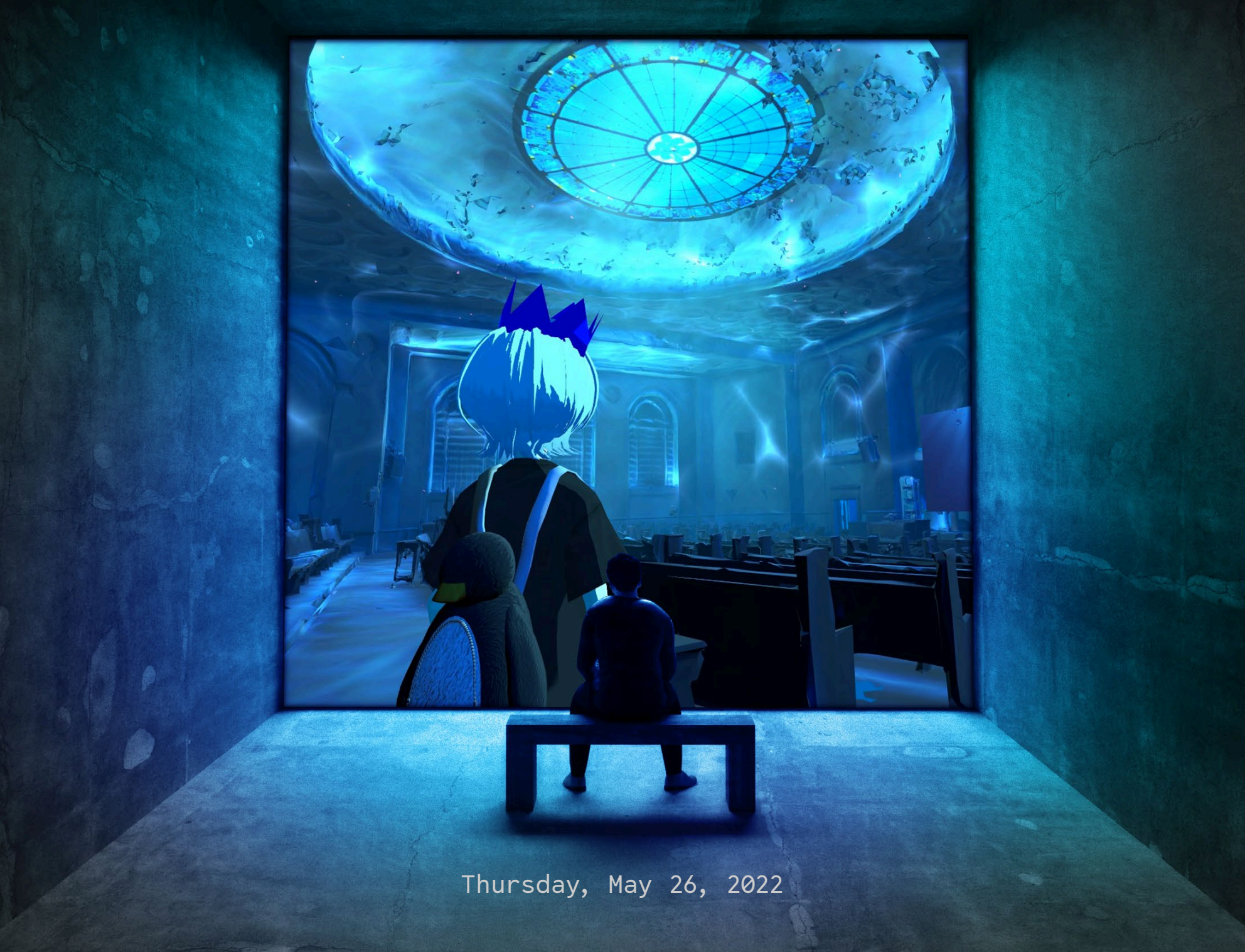
Resource guide

session 05

The Metaverse and the “Next Big Thing”



Thursday, May 26, 2022

“And we have a small, extremely literate power elite — the people who go into the Metaverse, basically — who understand that information is power, and who control society because they have this semimystical ability to speak magic computer languages.”

Neal Stephenson

Snow Crash

What is the metaverse?

The metaverse is a three-dimensional virtual universe that mimics our physical reality and enhances it. At present, developers use extended reality - virtual reality, augmented reality, and social communication technologies - to realize what has long been a fantasy described in science fiction novels. True believers say the metaverse will become the next generation of the Internet - three-dimensional, persistent, interoperable and immersive.

First described in Neal Stephenson's 1992 scifi novel *Snow Crash*, the metaverse reimagines the Internet as one universal immersive experience focused on social connection. Today, the goal is to build a network of 3D interconnected worlds that are simultaneously real and fantastical, in hopes that our perceptions of reality expand.

An open, interoperable, decentralized metaverse

In 2021, Mark Zuckerberg announced he was renaming his company *Meta*, bringing the concept of the metaverse into the mainstream. But proponents of a decentralized, interoperable metaverse have been building these 3D worlds for many decades. Recently, focus on the metaverse has sparked increased concern about the rights of participants in these immersive worlds.

Today, the dominance of a few platforms has put control of our personal data into the hands of a few giant corporations. Extended reality (XR) technologies have the potential to gather even more deeply personal data about our behaviors and surroundings than any of their predecessors. XR devices could potentially record our conversations, our movements, the layout of our homes. This increases concern about who will control the storage and privacy of the personal data gathered in the metaverse.

It is important to ask ourselves who is building the metaverse, why, and for whom. An open and decentralized metaverse could potentially take a different path from today's platforms: giving control to its users - whether it be the degree of avatar customization available to them or encouraging them to self-host using open-source hardware. The incorporation of avatars and voice changers, for instance, is a move towards anonymity, and therefore user privacy.

[1] →
Artwork on the resource guide cover: courtesy of Jin.

In his post on privacy for VR technology, metaverse pioneer, Jin[1], highlights the three layers of the metaverse. The first is the 3D internet layer which is akin to a public space where moderation is the purview of the platform. The second is a shared layer that resembles a small social network or group chat amongst friends, in which privacy is expected to a certain degree. The final layer of the 3D desktop is the most local layer, built upon a high degree of confidence between a user and their computer or local hard drive. This is one approach to outlining expectations of privacy in a decentralized metaverse.

Open metaverse developers also emphasize the need for interoperability, or the ability to shift our creations between virtual spaces without locking them into a single platform. Universal avatars, for example, are built to give users the power to customize their avatars without making significant changes when hopping from one virtual world to another.

Non-Fungible Tokens: The Next Big Thing?

A non-fungible token (NFT) is really just an entry on a blockchain, a long string of numbers that serves as a *unique certificate of ownership* for just about anything: a piece of digital art, an NBA player card, an avatar in a game, a newspaper article. For example, an NFT might represent ownership of a piece of digital land in the metaverse or a piece of real land.

NFTs are not new. Metaverse pioneers have been making and trading them for many years. But in 2020-21, non-fungible tokens became "the next big thing," the proverbial 'killer app' that brought many new actors into the Web3 ecosystem. In 2021, the sale of NFTs is estimated to have reached $17 billion, up by 21,000% over 2020's total of $82 million[2].

[2] →

Pymnts.com, "NFTs Hit $17B in Trading in 2021, Up 21,000%," May 10, 2022

Because the ownership of a NFT is recorded on a blockchain, ownership can be transferred to others, allowing an NFT to be sold or traded. But what is being sold is the certificate of ownership, not the digital file itself. So a piece of digital art that is certified as an NFT can be copied many times, shared, or even lost. Longterm preservation of digital items registered as NFTs is one of the big open questions of the NFT world.

NFTs have given birth to new forms of the creator economy, especially within the metaverse. They grant creators a certain degree of

autonomy, allowing them to cut out the middlemen and centralized platforms such as galleries or auction houses. But NFT critics decry their use as speculative investments, fueling ponzi schemes and art scams. Others point to the wasted use of energy when an item is certified by a blockchain, which requires large amounts of compute power to verify transactions.

Pioneers of the metaverse say that their true goal is freedom. Advances in interoperability could allow NFT owners to transport them between virtual worlds. Users will be able to bring their 3D objects with them wherever they go, trading or selling them, just as they can in real life.

Recommended Resources

Open Metaverse Framework, by xrdevlog, 2022

Metaverse Makers Mastermind (M3) Charter, by avaer, M3, 2019

“NFTs: Hope or Hype of Art?” video & article by Mai Ishikawa Sutton, Internet Archive blog, 2021

Try it out!

NFT Discord Bot — Mint and trade NFTs by running some commands inside a Discord server

Mona Gallery — A 3D gallery showcasing NFT art.

Dive Deeper

Building the Webaverse, Webaverse, 2021

NFT Reading List, a curated list of articles about NFTs prepared for our May 2021 meetup, by the Internet Archive

Thoughts on Moderation and Identity, by Philip Rosedale, 2022

Virtual Worlds, Real People: Human Rights in the Metaverse, by Katitza Rodriguez, Kurt Opsahl, Rory Mir, and Daniel Leufer, Electronic Frontier Foundation, 2021

Let's Save the Metaverse from Corporate Domination, by datatitian, Immers Space, 2020

VR & Blockchain + Architecting the Decentralized Metaverse, Voices of VR Podcast, recorded at the Decentralized Web Summit, 2018.

A Map of the Metaverse, Doug Thompson, 2021

Community Resources

GetDWeb.net - website of the DWeb Community, a global network of meetup groups working to build a better web, following these core principles

Redigest - Monthly newsletter by Redecentralize.org

Check out our other Resource Guides for this series

Stories from the Decentralized Web - Medium Channel with event recaps, articles & reposts of fundamentals of the Decentralized Web

DWeb Community Calendar

You can find links to other great information resources on the DWeb website!

Past and upcoming webinar sessions

Jan 27	**The Decentralized Web: An Introduction** Watch the recording →
Feb 24	**Using Decentralized Storage to Keep Your Materials Safe** Watch the recording →
Mar 31	**Keeping Your Personal Data Personal: How Decentralized Identity Drives Data Privacy** Watch the recording →
Apr 28 4 pm EST	**Goodbye Facebook, Hello Decentralized Social Media? Can Peer-to-Peer Lead to Less Toxic Online Platforms?** Watch the recording →
May 26 4 pm EST	**The Metaverse and the "Next Big Thing"** Register →
June 30 4 pm EST	**Ethics of the Decentralized Web & Uses for the Law, Journalism and Humanitarian Work** Register →