Untangling

Clarifying marketing topics and terms

Simplify

Untangling Terminology Within Web3, Metaverse, Blockchain & NFT

Why do we need to simplify common 'Web3, metaverse, blockchain and NFT' terminology:

The beginnings of the next iteration of the internet have begun to take shape as the relevant infrastructure continues to be built out. Web3 is based on blockchain technology which incorporates concepts such as decentralization, token-based economics, artificial intelligence, machine learning and the creation of immersive, interoperable virtual worlds.

The implications of this evolution to Web3 will be wide ranging for both consumers and brands, therefore it's important for marketers to understand related t*erminology within the platforms that are powering the future of the internet, such as Web3, metaverse, blockchain technology and NFTs.*

Below, we seek to simplify the frequently used terms and provide a comprehensive glossary:

How has the internet evolved to Web3?

Web1 / Web 1.0
1991-2004 (est.)

Web1 is classified as the **'read-only' web**, *which featured basic HTML websites and the advent of email. For most of Web1, it consisted of static content websites, with limited interactivity and a largely passive user experience. This iteration was driven by a low ratio of creators to consumers.*

Web2 / Web 2.0
2004-2020 (est.)

Web2 is defined as the **'social web'**, *which was centered around information and interactivity. Content is generated and shared by users, which is centrally hosted and monetized by small group of* 'walled garden' *platforms (e.g., TikTok, Google, Facebook).*

Web3 / Web 3.0
2020-Present (est.)

Web3 is the **'decentralized web'** *that will give users more control of their data and* identity as 'big tech' *companies get displaced as middlemen. Users will have more power and will benefit more from the content they create. The new private, secure and user-centric web will feature* **blockchain** *technology and* **metaverses.**

Web3

- **Artificial Intelligence (AI):** *Systems or machines that mimic human intelligence to perform tasks and can iteratively improve themselves based on the information they collect. Examples: Chat bots, recommendation engines, predictions.*

- **Cloud:** *Servers that are accessed over the internet, and the software and databases that run on those servers. Cloud servers are located in data centers all over the world. By using cloud computing, users and companies do not have to manage physical servers themselves or run software applications on their own machines.*

- **Decentralized:** *A framework in which functions are decided upon, and carried out by, an entire network of participants, rather than one or a few. Decentralization prevents power from being overly concentrated in a small number of companies or individuals.*

- **Digital Twin***: A near-perfect virtual rendering of a physical object like an engineering structure, mechanical device, factory or warehouse. Ideally, they are designed to be as dynamic and environment dependent* as the objects they're imitating *and act as models that could be interacted with, stress tested and engaged with through virtual simulations.*

- **Fifth Generation Wireless Network (5G)***: The latest architecture of wireless networks featuring improved data speed and latency rates, allowing the applications for data and the internet to evolve alongside it. High speed mobile networks provide more opportunities for high-definition video streaming to be consumed outside of major metro areas.*

- **Games-as-a-Platform:** *A business model that allows game developers to monetize video games in the long run after release. Monetization is achieved by the games being updated frequently with new experiences and offered to the players on a subscription basis or in the form of in-game purchases.*
    - **Related Term***: Games-as-a-Service*

- **In Real Life (IRL):** *Commonly used to describe a person, place, thing or event in physical – as opposed to virtual – reality.*
    - **Related Term***: Meatspace*

- **Interoperability:** *The ability of computer systems or software to exchange and make use of information. In Web3 it provides the capacity for a user to seamlessly move between platforms with their owned assets.*

- **Liminal Spaces***: A new generation of gathering spaces and event locales that incorporate both physical and virtual elements.*

- **Machine Learning (ML):** *A type of artificial intelligence that allows software applications to become more accurate at predicting outcomes without being explicitly programmed to do so. Machine learning algorithms use historical data as input to predict new output values.*

- **Peer-to-Peer (P2P):** *A network of individual computers exchanging information with one another without the oversight of a central server. Management of a P2P network is distributed among its constituent computers.*
    - *See also: Decentralized*

- **Play-to-Earn:** *A blockchain game model where players earn assets in the form of tokens or other rewards that can be used in the game or traded in an open market. In exchange for helping to grow the gaming community, players are rewarded with cryptocurrencies while playing.*
    - **Related Term***: Play-to-Collect*

- **Persistence***: A continuity of existence; the continuation of virtual life regardless of whether people are online or offline.*

- **Procedurally Generated Content:** *Data or content that is generated via a certain logic/algorithm, instead of a human creating the content manually. This technique can be applied to many fields such as gaming, mathematics, animation, computer graphics, 3D modelling, movie editing, artificial electronic music etc.*

- **User Generated Content (UGC):** *Any form of content - such as images, videos, text and audio - which has been posted by users on online platforms such as YouTube and Instagram.*

- **Web3 / Web 3.0***: The vision for the next iteration of the internet. As opposed to the current system (Web2), which is controlled by walled gardens like Google and Facebook, Web3 emphasizes user ownership—of data, content and assets—through the interoperability of metaverse platforms and the decentralized nature of blockchain technology including cryptocurrency and NFTs.*

What are the Web3 / metaverse realities?

Augmented Reality (AR)

Technology that adds digital components to a real-life view, commonly used on smartphones. Examples: Pokémon Go and filters on Snapchat.

Extended Reality (XR)

A category of multiple technologies — including virtual reality (VR), augmented reality (AR), and mixed reality (MR) — which, in various ways, blend virtual worlds with physical reality.

Virtual Reality (VR)

Technology that fully immerses the viewer in a completely digital experience. Common uses are gaming, entertainment and many industrial solutions. VR experiences are commonly engaged with on Meta Quest / Oculus headsets and Sony's PlayStation VR.

Mixed Reality (MR)

Technology that fuses virtual reality with physical reality and allows for the interaction between those two worlds. In other words, in mixed reality, input from the physical environment directly affects the output that the user receives from the virtual world.

Metaverse

- **Avatar:** *A virtual persona representing the user digitally. An avatar in the metaverse will* be a user's identity on that entire universe. Much like 2D avatars on other platforms, you *will be able to create and use an avatar in the metaverse however you would like.*

- **Decentraland:** *A popular 3D virtual world browser-based metaverse platform which opened in 2020. The platform includes interactive apps and games, in-world payments through their 'MANA' cryptocurrency and peer-to-peer communication for users. Users may buy virtual plots of land in the platform as 'LAND' NFTs via the MANA cryptocurrency, which uses the Ethereum blockchain.*

- **Metaverse:** *A collection of digital worlds that are interoperable, in which users can create content and interact with others as avatars, or digital versions of themselves. The metaverse is varied and encompasses activities across categories - it is part gaming ecosystem, part virtual lifestyle platform, part social gathering space and more.* Examples: The Sandbox, Meta's Presence and Microsoft's Mesh.

- **Meta Quest / Oculus:** Meta's line of virtual reality (VR) headsets that allow users to *immerse themselves in the metaverse. Originally the Oculus, the headsets have rebranded under their namesake to Meta Quest.*

- **Sandbox:** *A metaverse virtual world where players can build, own and monetize their gaming experiences in the Ethereum blockchain. As of 2Q 2022, over 140 brands have virtual integrations, lands or experiences in the Sandbox.*

- **Spaces:** *Virtual places within the metaverse where co-workers can hold meetings or participants with similar interests - concert goers, sports fans or gym enthusiasts for example - can access their respective worlds.*

- **Virtual Goods:** *Assets that exist in virtual platforms and are owned and used by avatars, typically in the form of NFTs. These goods often mirror real-world assets, such as clothes (known as wearables) and furniture, which are considered essential pieces of the metaverse economy.*

- **Virtual Land:** *Parcels of real estate that are formatted as NFTs and exist in virtual platforms, such as The Sandbox and Decentraland. Owners can buy or rent their land on primary and secondary marketplaces and develop it however they want, from building stores that sell virtual goods to creating music festivals with performances on the platform.*

- **Virtual Teleportation:** *A new technologically enabled form of travel or collaboration that uses multi-sensory and photorealistic renderings to make you feel as if you are in the same room as someone who could be halfway around the (physical) world.*

- **Worlds:** *Settings where consumers can game, communicate, make purchases, attend events and more. These are virtual worlds with their own residents, experiences and norms. Example: in gaming, brands are creating virtual gaming experiences on platforms such as Roblox that often rewards consumers for their gaming skills.*

Blockchain Technology & Cryptocurrency

- **Bitcoin:** *A cryptocurrency introduced to the public in 2009 by an anonymous developer or group of developers using the name Satoshi Nakamoto. It is often used as a Web3 currency to buy goods and services in the real-world and in the metaverse.*

- **Blockchain:** *A distributed digital ledger held together by cryptography where every additional change – such as a transaction – is recorded. As a result, it is impossible to alter a single record within a database without affecting all the others. This data is stored* as units of data in groups called "blocks" *and a block may contain any type of data, such as unique digital identifiers of physical products.*

- **Consensus Mechanism:** *The process by which transactions are verified and new* blocks/coins are added to a blockchain's ecosystem. Examples include '*proof of work,*' '*proof of stake*' *and* '*proof of attendance protocol.*'

- **Cryptocurrency:** *A type of digital currency that is secured through a system of code-* based processes called cryptography. Crypto typically exists in the form of "coins" on a *respective blockchain and is therefore decentralized in the way that it is created and distributed. Examples of cryptocurrencies include Bitcoin, Ethereum, Litecoin and Dogecoin.*
    - **Related Terms***: Coin, Token, Fungible Token*

- **Cryptography:** *The process of using mathematics to encode and protect sensitive information from others.*

- **Decentralized Autonomous Organization (DAO):** *A group of people that use smart contracts to deploy money in a concentrated way. A DAO is decentralized because each of its members gets a vote in how the money is used and it is autonomously self-executed by the code of the underlying smart contract. Use cases of DAOs are still emerging but their value could feasibly handle the operations of charities, investor groups and art collectives.*

- **Decentralized Finance (DeFi):** *A new vision of banking and financial services that is based on peer-to-*peer payments through blockchain technology. DeFi allows "trust-less" *banking via blockchain which sidesteps traditional financial middlemen such as banks or brokers.*

- **Ethereum (Ether):** The most popular blockchain for NFTs. Ether is the platform's *cryptocurrency, which is the second-most popular crypto behind only bitcoin. Ethereum*

differs from the Bitcoin blockchain because, in addition to being a platform for sending and receiving digital currency, it also can support smart contracts, and thus NFTs, DeFi and more.

- **Gas:** *In the context of Web3, gas refers to a fee that is required to execute a smart contract or transaction on Ethereum blockchain. Gas, which is often denominated in a very tiny fraction of an ETH called a WEI, is paid to node operators, AKA miners.*
  - **Related Term***: Gas fee*

- **Marketplace:** *An online exchange where users buy, sell, and trade cryptocurrency. Crypto exchanges work like online brokerages, as users can deposit fiat currency (legal tender declared by a government body such as the U.S. dollar) and use those funds to purchase cryptocurrency. Users can also trade their cryptocurrency for other cryptocurrencies and buy NFTs on marketplaces that support them.*

- **Mining:** *The process of adding transactions to the blockchain, which is a vastly distributed public database of existing transactions. Mining is usually done on a separate computer because it necessitates a fast CPU/GPU, as well as more electricity and heat generation than normal computer operations.*

- **Private Key:** *An alphanumeric code that must be entered by a user to* access one's *wallet or authorize an exchange of blockchain-based assets or currency.*

- **Proof of Work (PoW):** *A consensus mechanism that relies on mining, wherein computers (known as miners) compete to solve a cryptographic math puzzle. The first miner to correctly solve the puzzle gets to add the new block/coins and earns a crypto reward. PoW is used by the top two blockchains, Bitcoin and Ethereum, but despite its level of experience, it is known for being exceptionally energy intensive.*

- **Proof of Stake (PoS):** *A consensus mechanism method for validating entries into a distributed database and keeping the database secure. In cryptocurrency and NFTs the consensus mechanism secures the blockchain. Proof of Stake relies on random miners to validate transactions, rather than adding new blocks to the chain like Proof of Work, which uses less power, making it more environmentally friendly.*

- **Public Key:** *An alphanumeric code that is connected with a particular wallet. Analogous to a bank account number, a public key is the code that other users would input to send assets directly into your wallet.*

- **Seed Phrase:** *A group of words that allow access to a cryptocurrency or NFT wallet.*
  - **Related Terms***: Recovery Phrase, Backup Phrase, Mnemonic Phrase, Mnemonic Seed*

- **Wallet:** *An application that stores and protects the keys to blockchain-based assets and accounts like cryptocurrency and NFTs.*
  - *See also: Public Key & Private Key*

NFT

- **Drop:** *Another word for releasing an NFT (non-fungible token) or NFT collection on a marketplace.*
- **Fungibility:** *A term used in economics to refer to a commodity that is precisely equal in value and therefore exchangeable with other identical versions of that same commodity. A $1 bill, for example, is fungible, because it can be exchanged for any other $1 bill – they have the same value and therefore, for all intents and purposes, are identical.*
- **Mint / Minting:** *To uniquely publish a token on the blockchain to make it purchasable. For NFTs, this makes the NFT available to be placed on an exchange for purchase.*
- **Non-fungible Token (NFT):** *A certificate proving the authenticity and uniqueness of a digital asset. It is not the asset itself, but rather a unit of data that proves ownership of the asset and is ideally stored on a blockchain to ensure that data is incorruptible. It is a unique, one-of-a-*kind digital asset that's stored on a blockchain.
- **Proof of Attendance Protocol (POAP):** *A unique NFT, or digital record, given to people to commemorate and prove they attended a virtual or physical event. Also referred to as "an ecosystem for the preservation of memories," people can build a collection to document their online and offline experiences.*
- **Smart Contract***: Programs stored on a blockchain that run when predetermined conditions are met. They typically are used to automate the execution of an agreement so that all participants can be immediately certain of the outcome. A smart contract is the mechanism by which NFTs are minted and transferred and some allow the original artist to receive a profit share of all future sales.*

What are the 3 things to know about Web3, metaverse & blockchain*:*

1. *Global venture capital investment in blockchain & crypto firms, two core underpinnings of Web3 technology, skyrocketed to* **$24.9 billion in 2021** *vs. $3.2 billion in 2020 and saw a* quarterly record of $9.2 billion invested in 1Q '22. [1]
2. *While consumer awareness of the metaverse is on the rise, understanding of it is still very low highlight the need for continued education –* **74% of global consumers have heard of the metaverse** *as of March 22, up significantly from 32% in July 2021. However, only* **15% that know what the metaverse is can explain it to someone else**. [2]
3. **Lack of interest** *(40%),* **preference for real-life experiences** *(39%),* **data privacy concerns** *(23%),* **uncomfortable with the concept** *(23%) and* **personal safety** *(15%) are the main reasons cited by those who are not interested in the metaverse* [3]

Industry Perspectives:

1. *"The world and new technology and platforms are evolving so quickly nowadays that you have to keep your ear to the ground and trial and error and test stuff… [with] Web3 now, as a brand and as a marketer, if you're trying to reach consumers and engage with them, you need to be where consumers are. As consumers change where they spend their time, you need to follow suit and connect the dots." – Todd Kaplan, Chief Marketing Officer, PepsiCo* [4]

2. *"The metaverse signals the dawn of a new advertising era, providing marketers with an exciting playground to reach audiences through innovative and highly engaging marketing activations." – Itamar Benedy, Co-founder & CEO of Anzu* [5]

3. "*The metaverse has the potential to transform how consumers, brands and content creators interact and communicate, creating new experiences that bridge the gap between the virtual and physical worlds in ways we're only beginning to understand and develop." – Michael Scogin, VP of Strategic Partnerships, NBCUniversal* [5]

Future Outlook:

Although Web3 is in its infancy, the technologies underpinning the new age of the internet promises exciting shifts that will be felt across the media industry. The possibilities of the metaverse are already leading some marketers to rethink how they can most effectively interact and engage with consumers in immersive environments. Blockchain technology has given a new framework to the internet through a decentralized system with a focus on consumer privacy while NFTs are re-inventing what it means to own digital goods, as both creators and brands continue to explore this expanding space.

As the technologies behind Web3 advance, more marketers will experiment through a test-and-learn approach to identify how best to communicate with consumers in this new, developing iteration of the internet. Staying informed on the latest terminology can help marketers better understand this evolving landscape and make more informed decisions.

Want to learn more?

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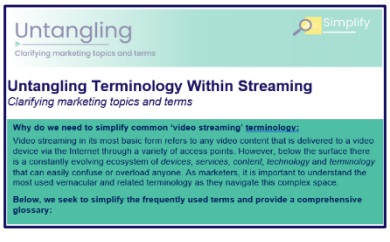

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Sources

1. *Variety VIP+, Variety Intelligence Platform,* '*Web3 Demystified*', *June 2022.*
2. *Wunderman Thompson,* '*New Realities: Into The Metaverse and Beyond*', *May 2022.*
3. *Global Web Index,* 'Just What's Happening With the Metaverse,' 5/3/22.
4. *AdWeek,* '*PepsiCo On Connecting With Consumers in Web3*', *5/26/2022.*
5. *NBCUniversal*, 'A Marketer's Guide to The Metaverse', *2022.*