# Web3 & Crypto Tokens
A Primer

Web3, the internet's evolution, set to reach $80B market by 2030, driven by privacy and security in financial transactions. Crypto tokens play a key role, fostering a decentralized ecosystem with enhanced control and privacy for users.

WHAT'S INSIDE!

1 What makes this technology so potentially transformative for brand-consumer relationships

2 A qualitative assessment on enterprise use cases, and where organizations are exploring web3

3 The real regulatory and technology risks that are obstacles for token adoption

4 Web3 reshapes brand-consumer bonds, decentralizing connections, empowering digital communities.
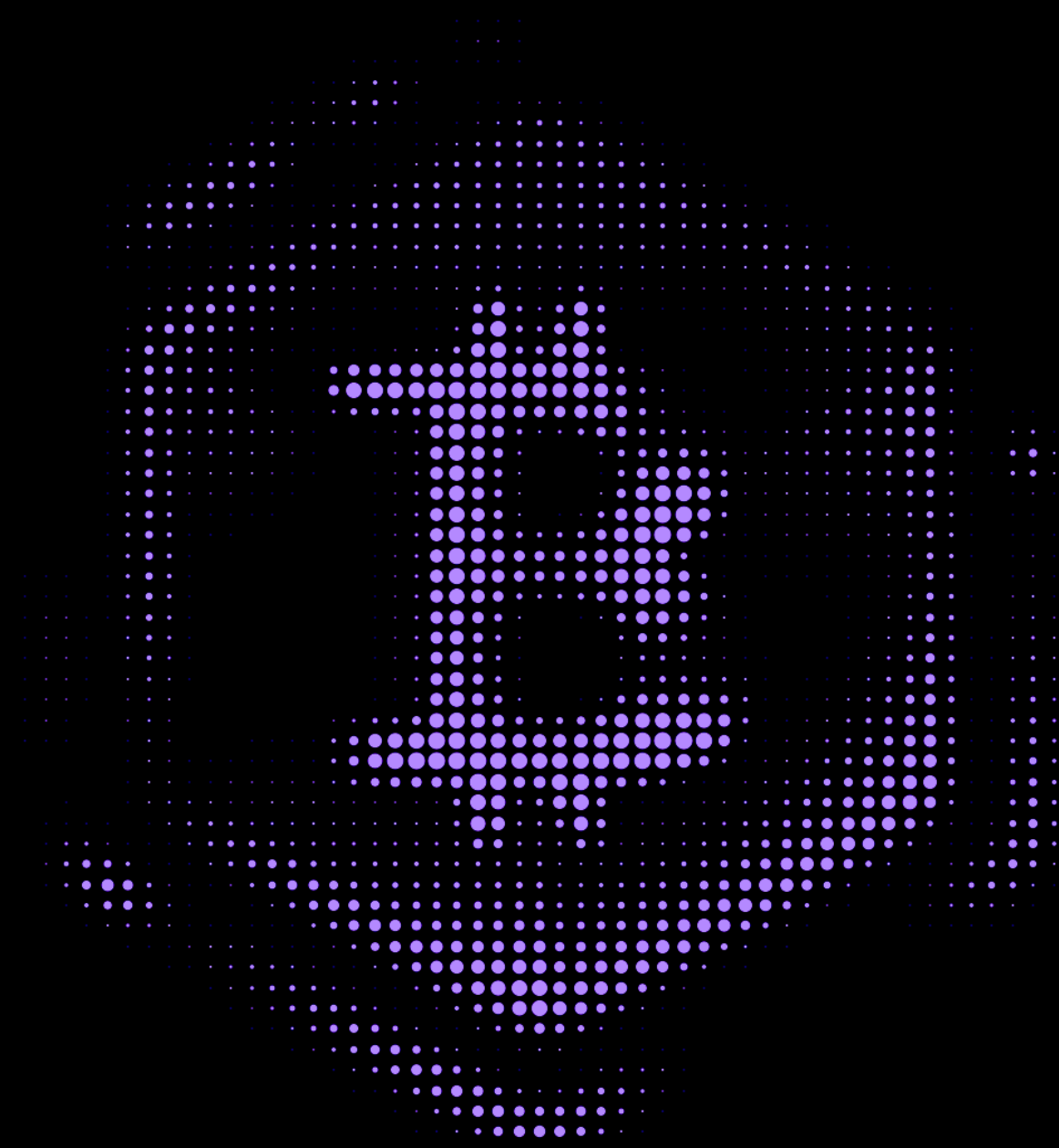
Web3 and it's Building Blocks

What is Web3?

Web3 refers to a decentralized web, powered by blockchain technology. It enables the creation of decentralized participatory communities, where individuals have control over their data, governance, transactions and so on. These communities foster collaboration, transparency, and collective decision-making, empowering users in the digital world.

The transition from web 2.0 to web3 will bring about substantial transformations in the following three aspects:
- ⊘ Decentralized user data and content
- ⊘ Decentralized finance and currency systems
- ⊘ Immersive user experience

It should be emphasized that web3 is an ongoing evolution, with gradual advancements being made in the aforementioned areas.

Characteristics of Web3

Web3 has emerged as a new type of disruption, of distributed consumers self-organizing into connected token projects. Tokens refer to digital assets or units of value that are issued on a blockchain or distributed ledger technology (DLT) platform.

Web3 denotes the application ecosystem for internet economies programmed with composable smart contracts.

Web3 is a significant evolution from its predecessor, web2.0, which was characterized by the dominance of Big Tech.

By fostering a new digital decentralized network, Web3 empowers consumers to construct systems that incentivize the accumulation of crypto assets.

Building Blocks Of Web3

Crypto Tokens

A crypto token represents a digital asset or unit of value, issued on a blockchain. They can be used for various purposes such as payment, or access to digital services. It is worth noting that tokens

> Crypto tokens are integral to decentralized finance (DeFi), enabling peer-to-peer transactions and powering various financial activities without intermediaries. They are disruptive technologies that are still nascent and complex.

can be programmed on top of smart-contract (self-executing contracts) apps, or can be used to validate a blockchain network (e.g., Ethereum and Bitcoin)
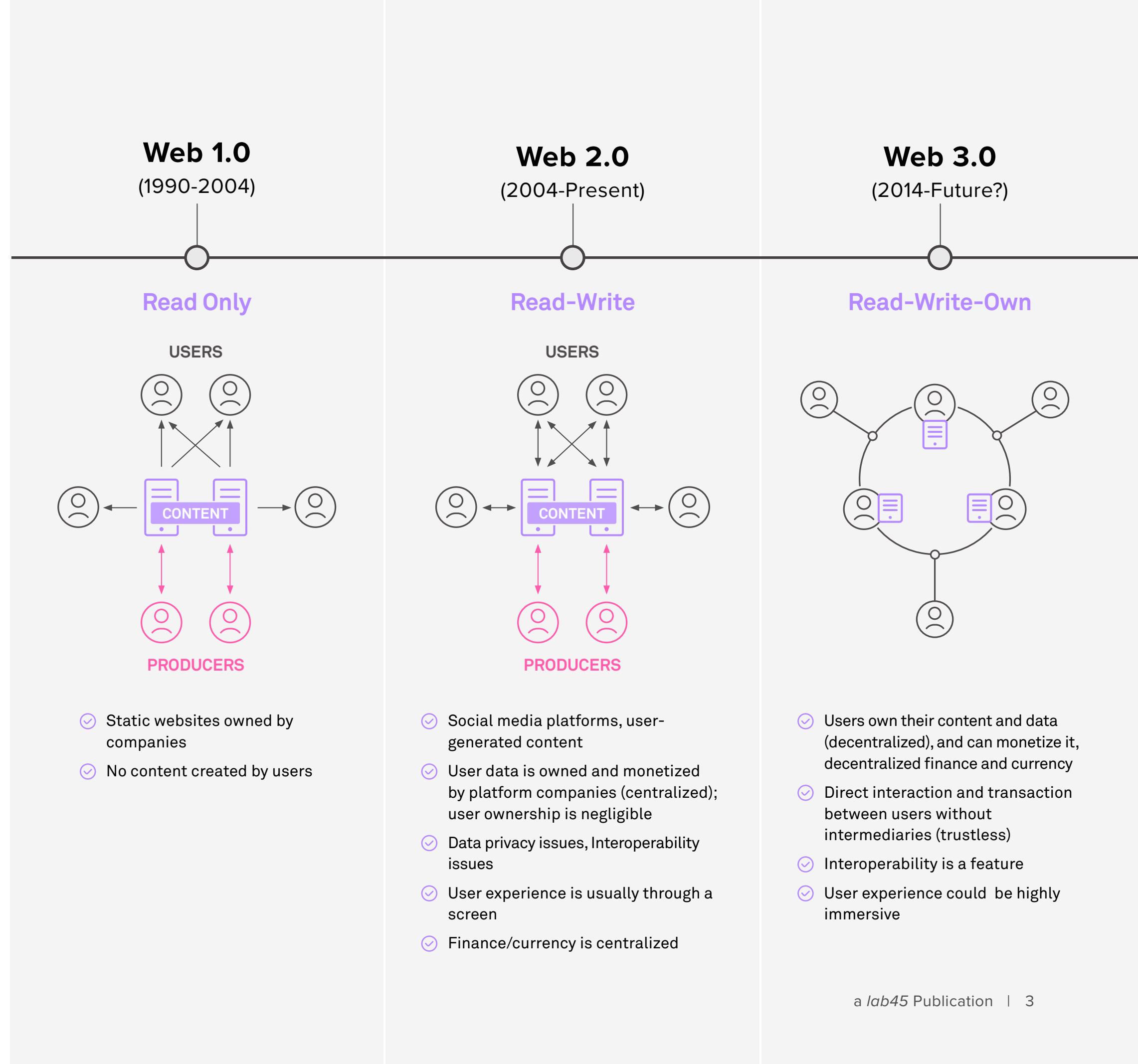
Crypto tokens are integral to decentralized finance (DeFi), enabling peer-to-peer transactions and powering various financial activities without intermediaries. They are disruptive technologies that are still nascent and complex. Nevertheless, they've captured the imaginations of individuals around the world, to join a movement that promises an ability to

become wealthy by allocating financial capital into decentralized networks, independent from any institutions.

However, tokens are fraught with shady actors and security vulnerabilities. Presently, tokens face an unfavorable regulatory landscape on a global scale, primarily due to notable instances of fraud and the evident immaturity of these technologies.

Yet tokens are as disruptive a technology as any other in history. In the future, tokens could have a huge potential for brands, to transform how they interact with their consumers – empowering consumers to capitalize on their participation in a brand experience. Today, numerous brands are actively exploring the prospects of utilizing tokens to establish connections with their most loyal customers.
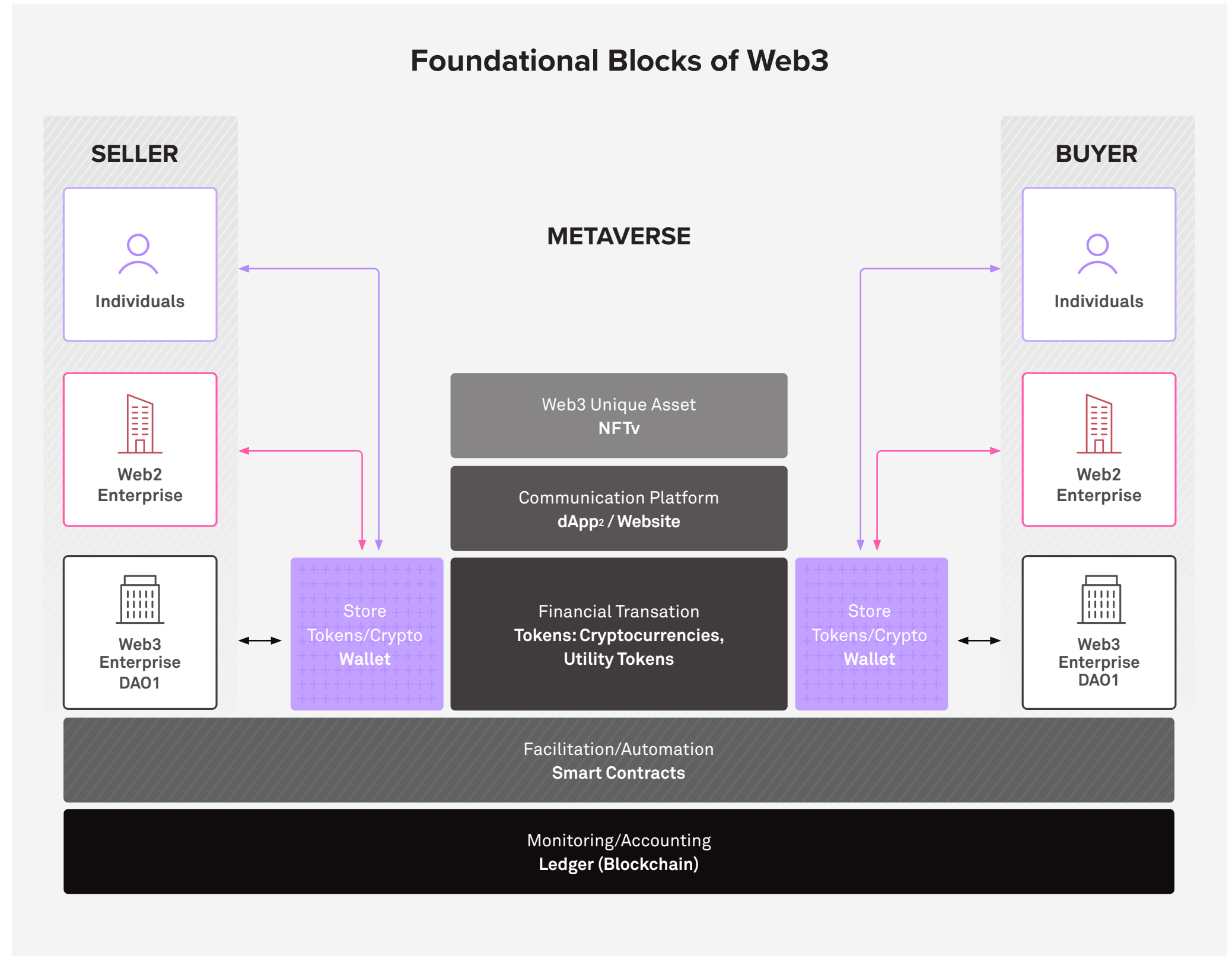
Crypto tokens are one of the foundational pillars of Web3 and play a vital role in the web3 ecosystem by representing value, ownership, and utility within the decentralized applications. The growth of web3 is also dependent on the increasing adoption of crypto tokens.

Web 1.0
(1990-2004)

Read Only

USERS

CONTENT

PRODUCERS

- ⊘ Static websites owned by companies
- ⊘ No content created by users

Web 2.0
(2004-Present)

Read-Write

USERS

CONTENT

PRODUCERS

- ⊘ Social media platforms, user-generated content
- ⊘ User data is owned and monetized by platform companies (centralized); user ownership is negligible
- ⊘ Data privacy issues, Interoperability issues
- ⊘ User experience is usually through a screen
- ⊘ Finance/currency is centralized

Web 3.0
(2014-Future?)

Read-Write-Own

- ⊘ Users own their content and data (decentralized), and can monetize it, decentralized finance and currency
- ⊘ Direct interaction and transaction between users without intermediaries (trustless)
- ⊘ Interoperability is a feature
- ⊘ User experience could be highly immersive

Web3 aims to create a decentralized and user-centric ecosystem. At its core, blockchain provides the infrastructure for secure and transparent transactions, data storage, and smart contracts.

Hitherto, the value that web3 tokens can bring to consumers remains uncertain. Most web3 use cases revolve around speculating the token price and trying to earn more tokens, maintained by resilient engineering communities, and have built real, digital communities to crowdsource to. These micro-communities of individuals are trying to disrupt their economic representation with monetary technologies. These crypto tokens act as micro-currencies built by micro-communities trying to underpin the internet with blockchain technologies.

When token prices are swinging dramatically, and skyrocketing in value, there is relentless optimism in the communities of connected citizens. There

Foundational Blocks of Web3

SELLER

Individuals

Web2 Enterprise

Web3 Enterprise DAO1

METAVERSE

Web3 Unique Asset
NFTv

Communication Platform
dApp2 / Website

Store Tokens/Crypto **Wallet**

Financial Transation
Tokens: Cryptocurrencies, Utility Tokens

Store Tokens/Crypto **Wallet**

Facilitation/Automation
Smart Contracts

Monitoring/Accounting
Ledger (Blockchain)

BUYER

Individuals

Web2 Enterprise

Web3 Enterprise DAO1

1. Decentralized Autonomous Organizations – They also issue tokens as a unit of value
2. dApp – Decentralized application that run on blockchain

are forms of web3 and crypto token communities in virtually every country on Earth. Next-Gen entrepreneurs see the value in building digital communities, self-coordinating and participating within themselves to invent value in token networks.

Tokens are certainly divisive. It is too often unclear exactly what value blockchain networks bring to their users. Networks often have no answer in how to create price stability or protect their networks from the rampant of malicious threats. Many token networks have crashed and burned in an instant.

Hosted on blockchains, web3 applications for NFT communities, Decentralized Finance, Cryptocurrencies, Metaverse assets, and DAO tokens act as the goods, services, currency, assets, and infrastructure for Web3. In the Internet of Ownership, the networks are owned by the builders and users, orchestrated with tokens to co-create value and self-organize within the burgeoning decentralized economy.

Blockchain

Blockchain is a decentralized and transparent digital ledger that records and verifies transactions

Networks often have no answer in how to create price stability or protect their networks from the rampant of malicious threats. Many token networks have crashed and burned in an instant.

across multiple computers or nodes. It enables secure immutable storage of data, eliminating the need for intermediaries.

This distributed ledger system ensures that all participants have access to the same information, preventing fraud and enhancing trust.

Blockchain is a foundational technology in the development of Web3. Web3 aims to create a decentralized and user-centric ecosystem. At its core, blockchain provides the infrastructure for secure and transparent transactions, data storage, and smart contracts.

Smart Contracts

Self-executing digital agreement, encoded on a blockchain, that automatically enforces the terms and conditions of a contract between parties.

NFT (Non-Fungible Token)

NFT is a unique digital asset, often used for digital goods, stored on a blockchain, that ensures its ownership and provenance.

The Web3 Adoption

While the crypto markets run up until 2021 was an impressive growth story, it is important to note that the web3 community until now is still relatively small. By the peak of the most recent web3 bull cycle, in November 2021, there were approximately 7 million people transacting with token wallets on a monthly basis.

Crypto is volatile, with extreme ups and downs. It may have fundamental flaws and face challenges with user experience and regulatory alignment. The complexity of web3 technology poses risks in regulation, technology, and security. There are various potential paths to failure for crypto. It seems unlikely that the EU, USA, and China will support crypto freedoms.

Yet tokens could also emerge as a technology for liberty, as a bottom-up human coordination technology. We could still expect a rising counterculture of emerging consumers that prefers digital tokens. They find that allocating a portion of their investments and times in responsible crypto custody and communities is value generating, a sovereign type of banking, with robust long term

consequences. Sam Altman's Worldcoin is a step towards this direction.

Web3's potential to create value for the general public is unpredictable. Adoption can go in multiple directions, as we have discussed. Tokens may disrupt traditional systems if inflation or currency crashes happen. However, regulatory obstacles and fraudulent actors could hinder their progress, preventing the development of best practices for token design.
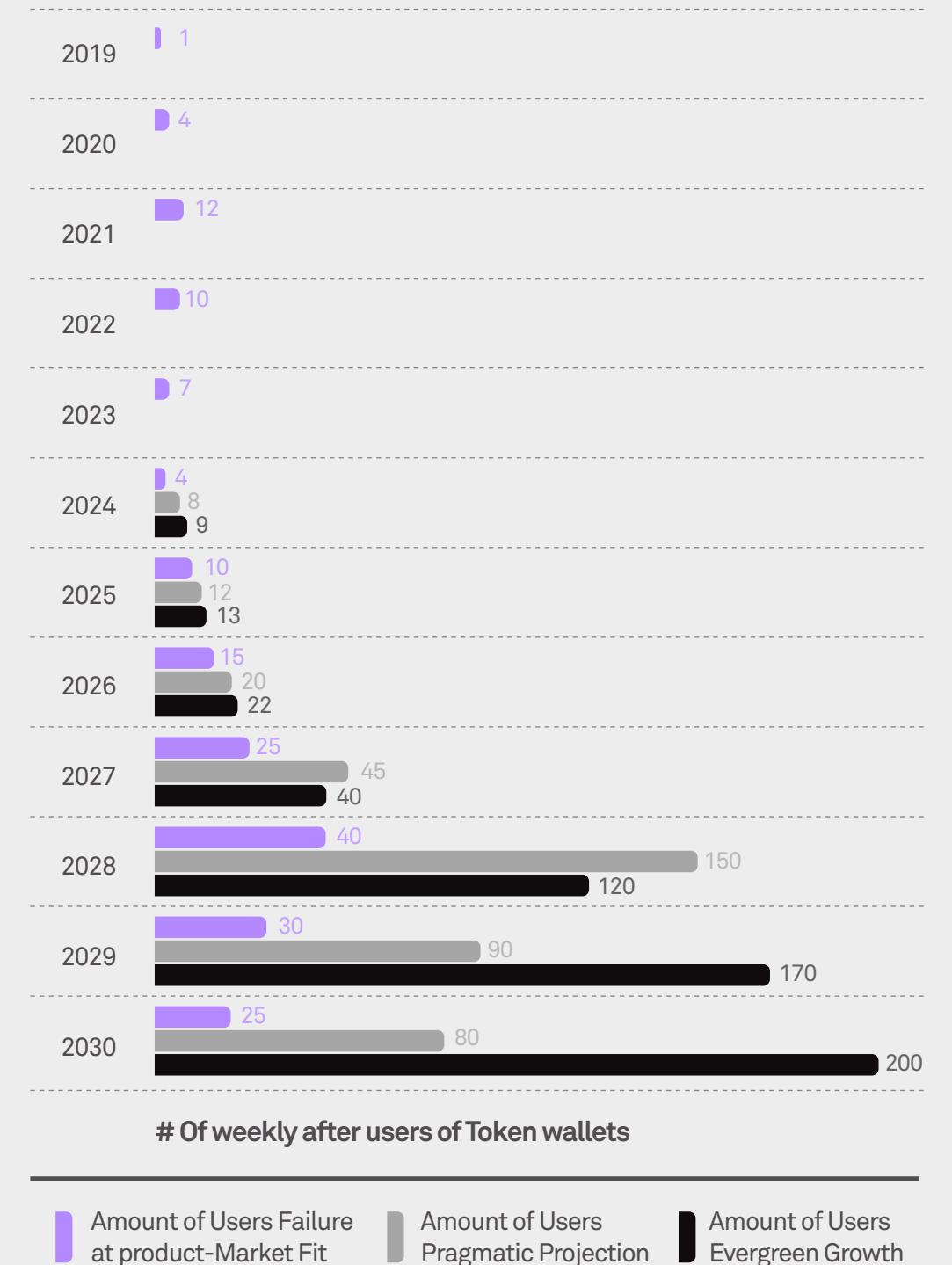
What Analysts Says About Web3?

Gartner.

- Placed web3 at the peak of expectations* in its hype cycle; expects mainstream adoption starts to take off in 5-10 years (Aug 2022).
- Expects web3 to be a critical technology enabler in the next 3-6 years (Jan 2023).

McKinsey&Company

- VC investments in Web3 exceeded $18 billion in the first half of 2022.

Projected Web3 Traction

Year	Failure at product-Market Fit	Pragmatic Projection	Evergreen Growth
2019	1		
2020	4		
2021	12		
2022	10		
2023	7		
2024	4	8	9
2025	10	12	13
2026	15	20	22
2027	25	45	40
2028	40	150	120
2029	30	90	170
2030	25	80	200

 # Of weekly after users of Token wallets

- Amount of Users Failure at product-Market Fit
- Amount of Users Pragmatic Projection
- Amount of Users Evergreen Growth

*Early publicity produces several success stories - often accompanied by scores of failures. Some companies act; many do not.

The Role of the Enterprise in Web3

Tokens are at their most transformative, when they can unite a micro-community of a few thousand people, to coordinate long-term value in the token that they are creating.

Tokens have captivated communities around the world and has generated mainstream momentum but the majority of them and their applications remain immature and fail to generate value. This is primarily due to the absence of robust economies built around the tokens. In most token projects, tokens serve as both currency and goods, resulting in highly volatile and unsustainable token prices.

Centralized Enterprises and Their Brands Could Play a Critical Role in Developing Web3.

Enterprises could be interested in building micro-communities around their brands and building a token alongside the brand's community.

Brands interested in building tokens, would need to invest significantly into the design and sponsorship of creating a holistic token ecosystem. A brand's token can act as the brand's micro-currency and community asset. We could see brands building NFT communities around their loyal fans or building a fungible token to transact within their product ecosystem, or both.

Tokens hold great appeal to consumers as they blur the distinction between utility and investment. By being rewarded for active involvement within the token ecosystem, fans can benefit from their consumption. Tokens offer new ways of generating value for the labour force, making them a disruptive technology at the convergence of business, technology, culture, and liberty.

To build a successful token, brands must focus on the development of an engaged community of participants. Success of tokens depends on active user involvement within the network ecosystem. When a brand aims to link its loyal consumers to a token project, the key to success lies in identifying and incentivizing the most suitable participants to foster system growth.

For brands to build web3 communities, they could focus on building real value for their community

A brand's token can act as the brand's micro-currency and community asset. We could see brands building NFT communities around their loyal fans or building a fungible token to transact within their product ecosystem, or both.

to incentivize their fans to join. **We will highlight some examples of what value can be given to a web3 community:**

✓ NFTs for Reinvented Customer Loyalty Programs

Owners of NFTs by a brand could be entitled to bespoke services and experiences. NFT owners and community participants can get discounts, cashback, and get access to early releases for new products. The goal is to create value that loyal brand participants would value.

DAOs for Brands to Crowdsource Productivity to Their Community

Brands could see the value of tapping into a connected, crowdsourced, community hivemind of participants. They can establish a Decentralized Autonomous Organization (DAO) where token ownership grants membership. Brands have the opportunity to engage in various forms of crowdsourcing, such as product design, marketing competitions, and community operations. The active involvement of DAO members is crucial for brands to derive value from this approach, with participants being incentivized through successful participation.

Tokens for a New Type of Economic Experience

Creating a token economy that maintains token value may appear challenging, but certain enterprises can potentially develop a competitive product advantage through token design. Enterprises acting as platforms with autonomous suppliers and demand can, for example, utilize tokens to incentivize buyers and sellers to remain within their product ecosystem.

Snapshot of Centralized Brands Exploring Tokens

NIKE — In December 2021, Nike acquired the virtual sneaker company RTFKT, which specializes in creating digital sneakers as NFTs. The acquisition demonstrated Nike's interest in exploring NFTs and the metaverse as potential avenues for growth.

L'ORÉAL — Created NFTs for users to unlock exclusive experiences and product offerings. Prioritized several of their brands to be Web3/Metaverse adoptable, with NYX and YSL having partnerships with startup to develop digital and virtual beauty products.

Starbucks — Experimenting with Starbucks Odyssey, launching a NFT collection and blockchain-based loyalty program. NFTs act as digital stamps that owners can exchange for real-world experiences and exclusive benefits.

GUCCI — Exploring digital tokens, as they began accepting cryptocurrency payments in US stores. Invested in SuperRare DAO, a community representing a bespoke and artist-first NFT platform.

MasterCard — Launched NFTs and a web3-based Mastercard Artist Accelerator program, tapping the Polygon blockchain to power the blockchain for fan-driven experiences.

Tiffany & Co. — Announced a NFT collection available exclusively to holders of Cryptopunk NFTs, along with the ability to buy a customized physical pendant.

The Players In Web3 Today

Mainstream Brands Entering the Web3 Space

Web3 is complex, immature, and draws a lot of scepticism due to its price speculation. However, there has been a growing trend among brands to explore new forms of community and brand development. They recognize the potential of engaging with digital-native distributed/decentralized fan communities.

And the Big Decentralized Brands Too

The biggest brands and token projects in web3 are decentralized collectives. While these projects are still ultimately small, it should be worth following the rise of decentralized brands, if any of these brands can develop into a mainstream iconic organization.

Snapshot of Decentralized Brands Exploring Tokens

**YUGALABS**
Startup building web3 communities

Venture-Capital backed startup that owns the intellectual property of the two biggest NFT collections — Bored Ape Yacht Club and CryptoPunks. Yuga is actively working on building a private Metaverse for their NFT holders, and the cheapest Bored Ape NFT sells for ~$100K. Love it or hate it, their NFT prices have held up in recessionary markets.

AAVE
DeFi lending protocol
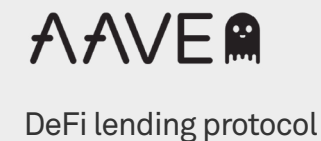
Aave is a decentralized finance protocol that allows people to lend and borrow crypto. Lenders earn interest by depositing digital assets into specially created liquidity pools. Borrowers can then use their crypto as collateral to take out a loan using this liquidity.

FWB
digital-native community social DAO

Creative collective fostering a highly engaged and collaborative community, whose community direction is managed by a DAO. They use fungible tokens called $FWB to manage their community governance.

OP Optimism
Layer-2 Ethereum Network
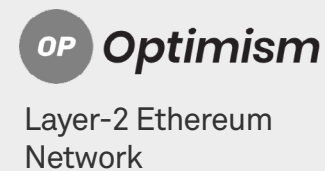
Blockchain-rollup solution built on top of Ethereum. Optimism benefits from Ethereum's security, while transactions on this layer-two network cost a fraction of the price of transactions on Ethereum's network.

PAX GOLD
DeFi project backing real-world assets

Gold-backed cryptocurrency where tokens are tradeable with gold on a 1-1 basis. Pax could innovate within the metals trading industry, enabling investors to buy indefinitely small amounts of gold through the cryptocurrency, eliminating the minimum buy limits qualifications.

BRIGHT MOMENTS
NFT and DAO collective

Bright Moments is an art collective focused on the "generative NFT" art scene, combining digital communities within physical cities. NFT minting is a bespoke minting experience, giving you access to further opportunities to win rare NFTs.

Business Models Around Web3 and Major Players

There can be various business models centered around web3. A few of them are listed here...

NFT Business Models

Creation, trading, and sale of NFTs

Major Players

OpenSea · Rarible · SR · NBA Top Shot · CryptoKitties

Decentralized Finance (DeFi)

Use of blockchain technology to create financial applications

Major Players

MAKER · Compound · AAVE · SushiSwap · UNISWAP

Web3 Infrastructure and Tools

Providing infrastructure and tools to help build decentralized applications (dApps) and protocols on blockchain technology

Major Players

ethereum · arweave · Polkadot · Chainlink · IPFS

Decentralized Autonomous Organizations (DAOs)

Creating and managing DAOs to govern various projects or initiatives

Major Players

MOLOCH DAO · DAO · Curve · Balancer

Gaming and Virtual Worlds

Create and monetize games and virtual worlds that are based on blockchain technology

Major Players

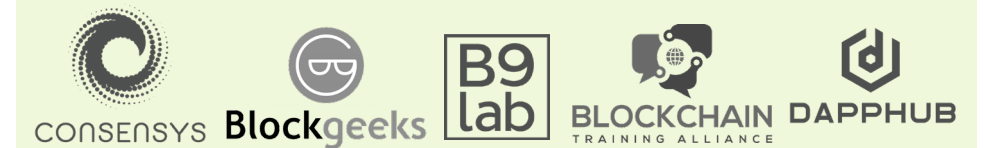THE SANDBOX · Decentraland · AXIE INFINITY · GODS UNCHAINED · EMBER SWORD

Web3 Consulting and Education

Consulting and education services to help businesses and individuals understand and navigate web3

Major Players

CONSENSYS · Blockgeeks · B9 lab · BLOCKCHAIN TRAINING ALLIANCE · DAPPHUB

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* Since blockchain is the most popular DLT, it is often used interchangeably. However, web3 can be based on other DLTs as well.

Decentralization of user content and data

Decentralization of finance/currency

Immersive user experience

Other web3 ecosystem business models

Regulatory And Technology Risks

Micro-economies are both complex and immature. Yet the upside potential is as large as the unresolved questions about such disruptive technologies.

Which is to say, tokens on a long enough timeline will become buzzy again. There should always be volatile cycles of huge user adoption. Yet there are also immense regulatory and security issues with tokens that have become the default reality in today's world.

Token Custody & Responsibilities

The decentralized nature of tokens, means that users are responsible for the custody of their tokens – they cannot be stored at a bank, currently. Users need to make a conscious decision of how they want to take custody of their tokens, and depending how, would need to take the necessary steps in cryptographically securing their tokens.

Cyber Crimes

When your internet presence gets hacked, it often has negative but recoverable consequences. However, when your tokens get hacked, you can lose a life changing amount of money. There are companies that are improving capabilities in retrieving stolen tokens. Yet attack vectors can come from any part of the world, with increasingly sophisticated technical, social engineering, and malware techniques.

Token Fraud

Besides your tokens getting stolen, there are many instances of the projects behind the tokens being frauds, oftentimes due to the anonymous nature of web3 projects. There is often poor accountability or compliance standards for the management of user funds, who contribute into token protocols.

Money Laundering & Illegal Activity

In the early days of bitcoin, there was a high likelihood of transactions that were relating to illegal activity. That number has gone down dramatically as many users on boarded into tokens. Yet there is still the ever present concern that token transactions are being used for money laundering purposes. There have been brief periods where over 90% of NFT trading activities were related to money laundering.

Environmental

The Ethereum network underwent a successful software upgrade and progression, when it changed its token validation mechanism from Proof of Work to Proof of Stake – which uses 99.9% less energy in validating the network. Bitcoin, however, still uses Proof of Work, which consumes intense amounts of energy. There could be growing regulatory calls to ban Proof of Work bitcoin mining.

Regulatory

Amid the wild frenzies of tokens, many users have lost their money. Governments are growing increasingly irritated with tokens, viewing them as speculative assets. In the US, there is a growing likelihood that tokens on the Ethereum blockchain will be classified as securities, changing its tax code. In the EU, they are trying to pass the Markets in Crypto Assets (MiCA) regulation, to regulate exchanges and banks that transact with tokens.

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