L1 Blockchains & Decentralisation

Exploring the Web3 Ecosystem

👋 Hi

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Why Decentralisation?

Why Decentralisation?

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Web3 & World Change

02

Layer 0, Layer 1, Layer 2

Layer 0, Layer 1, Layer 2

Roles of Each Layer

Pros & Cons

Importance of Layer 2

Roles of Each Layer

Layer 0

Physical Layer

Layer 1

Protocol Layer

Layer 2

Application Layer

Pros and Cons of each layer

	Layer 0	Layer 1	Layer 2
Pros	provides the physical infra	Provides the underlying protocol that powers web3	Provides scalable and fasta applications
Cons	Vulnerable to security breaches and attacks	Limited in terms of scalability and transactions throughput	Complex and requires additional layers of security

Importance of Layer 2

- More efficient and cost-effective transactions
- Off-chain transactions
- Congestion on blockchain is reduced
- Increases tps
- Gas fees decreases

03

Barriers to Decentralisation

Barriers to Decentralisation

While decentralisation presents many opportunities, there are still significant challenges that need to be addressed. By identifying and overcoming these barriers, we can usher in a more decentralised future for Web3.

Barriers to Decentralisation

Current Barriers

Addressing Barriers

Community Building

Current Barriers

- Scalability
- Governance
- Regulatory

Addressing Barriers

Scalability

L2s, sidechains

Governance

DAOs

Regulatory

Collaboration

04

Decentralized Storage

Decentralized Storage

As data becomes increasingly important in the Web3 ecosystem, it's essential to explore decentralised storage options. Arweave and IPFS are two promising solutions that offer increased security and accessibility.

Decentralized Storage

Introduction to
Arweave & IPFS

Arweave

- Arweave is a blockchain-based decentralized storage solution that provides permanent, tamper-proof storage for data and information.
- It uses a unique consensus mechanism called Proof of Access, which rewards users who store data for longer periods of time.
- Arweave is also designed to be cost-effective, with low storage fees and no bandwidth or egress fees.

IPFS (InterPlanetary File System)

- IPFS is a peer-to-peer protocol for decentralized file storage and sharing.
- It uses a content-addressed system, where files are identified by their content rather than their location.
- This allows for easy sharing and retrieval of files, even if the original host is offline.
- IPFS is also designed to be highly scalable, with no central point of failure and the ability to handle large amounts of data.

Arweave vs IPFS

Has its own blockchain with their own consensus SPoRA.

Used for permanent storage.

Cost of storage: 1 GB = 0.244 AR (~6.8$) depends on AR price

Not a blockchain, it is a P2P network like Bittorrent. Uses distributed hash tables.

Does not give permanent storage by default.

No transaction cost, need to pinning services like Infura, Pinata, Temporal or setup your own IPFS cluster on AWS

Thank You!