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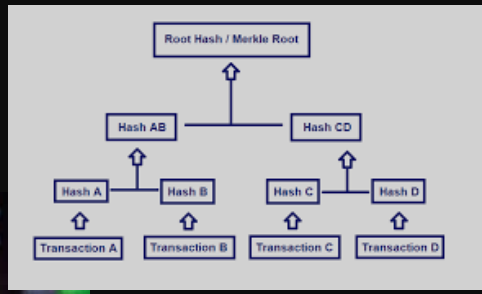
Frontiers of the new economy - Tokens, DeFi, NFTs & DAOs

Jason Potts

@profjasonpotts

jason.potts@rmit.edu.au



What is a blockchain?

"a distributed, append-only **ledger** of provably signed, sequentially linked, and cryptographically secured transactions that is replicated across a network of computer nodes, with ongoing updates determined by software-driven consensus"

Blockchain is a technology to create **digital scarcity**

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Blockchain is **economic infrastructure** for next generation autonomous digital technologies

What is a cryptocurrency?

A private money – for metaverse, digital economy

A savings technology (digital gold)

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Web3 = internet of value

- **Social consensus about truth underpins the economy**
- We need to agree about facts for economic activity to occur
- This is what ledgers do. They are an institutional technology
- Blockchain = better Ledger technology
- How better? Distributed. Using the internet. And math.

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Blockchain A.M.A.

- **Do blockchains waste huge amounts of energy? Do NFTs?**
  - No. POW blockchains turn compute into security. Mining stabilizes grids (supporting green energy). Blocks are processed whether empty or full, so NFT doesn't cost energy. Next generation consensus protocols (e.g. POS) are highly energy efficient.
- **Will quantum computing break blockchains?**
  - No. Quantum encryption will keep pace with quantum decryption.
- **Isn't it only used by criminals? Didn't Country X ban it?**
  - Only criminals that want to get caught. And X is perhaps not very good at banning.
- **Isn't blockchain a non-solution to a non-problem?**
  - Nonproblems such as DeFi, NFTs, DAOs
- **But isn't it too volatile?**
  - This is why stablecoins exist

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Web 1 – Early Internet

Military & scientific use for decentralized communication

nuclear strike proof coms, email, www, browsers

Web 2 – Commercial internet

Use **companies** for **economic infrastructure**

- Search – Google
- Social media – Facebook
- Marketplaces – Amazon, Netflix, Airbnb, Uber

No internet native money, identity, contracts, law, … **Government** provides this

Web3 - Digital economic infrastructure

digital money	cryptocurrency
digital assets	tokens
digital identity and registries	DID, blockchain
digital credentials	tokens
digital contracts	smart contracts
digital intellectual property	NFT
digital services	Dapps
decentralized markets	DEX
digital organizations	DAO
digital finance	DeFi
digital governance	tokens

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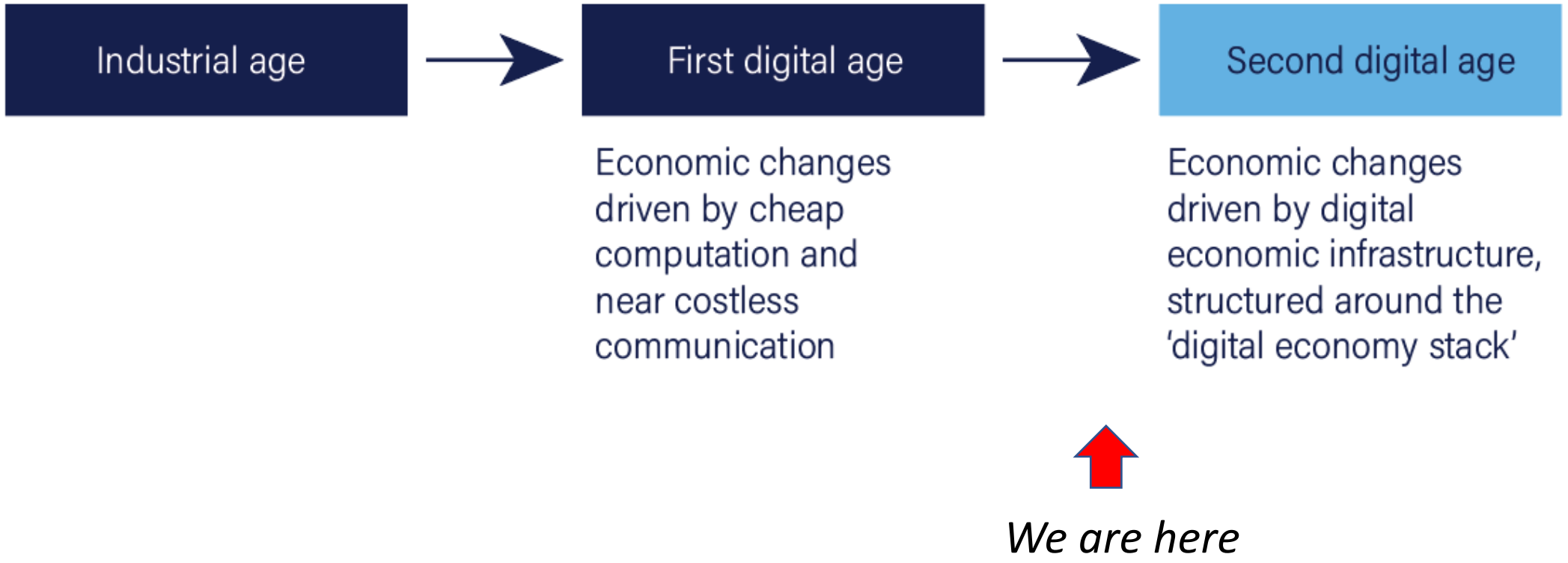
blockchain = true beginning of the digital economy



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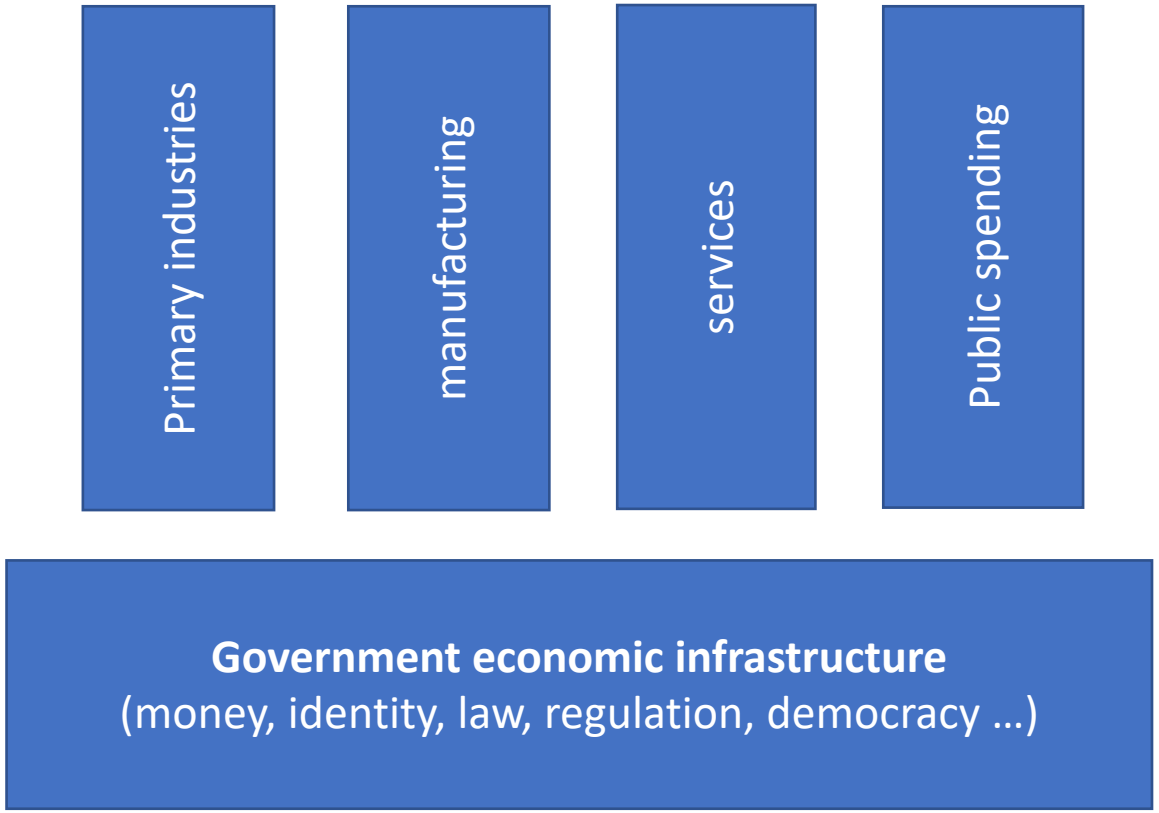
Industrial economy



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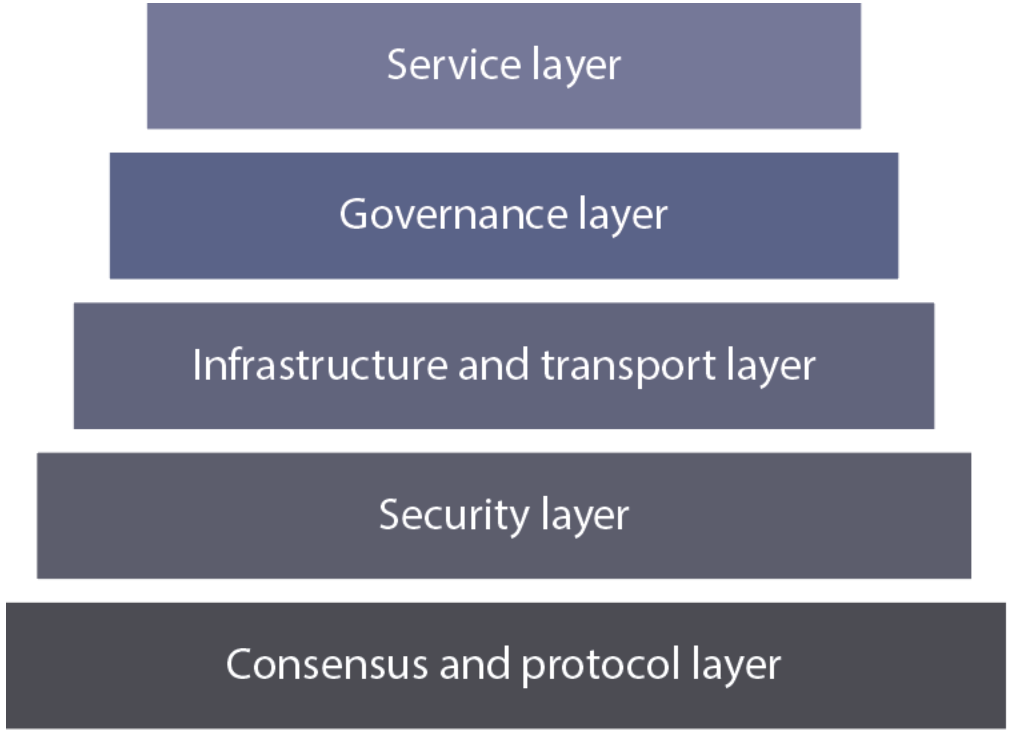
The digital economy stack



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What is DeFi?

Decentralised Finance

building blocks of DeFi

- Ethereum – L1 blockchain
- Smart contracts
- Dapps
- Wallets
- Protocols

- Oracles
- Staking
- Yield farming
- Liquidity pools
- Vaults
- MEV

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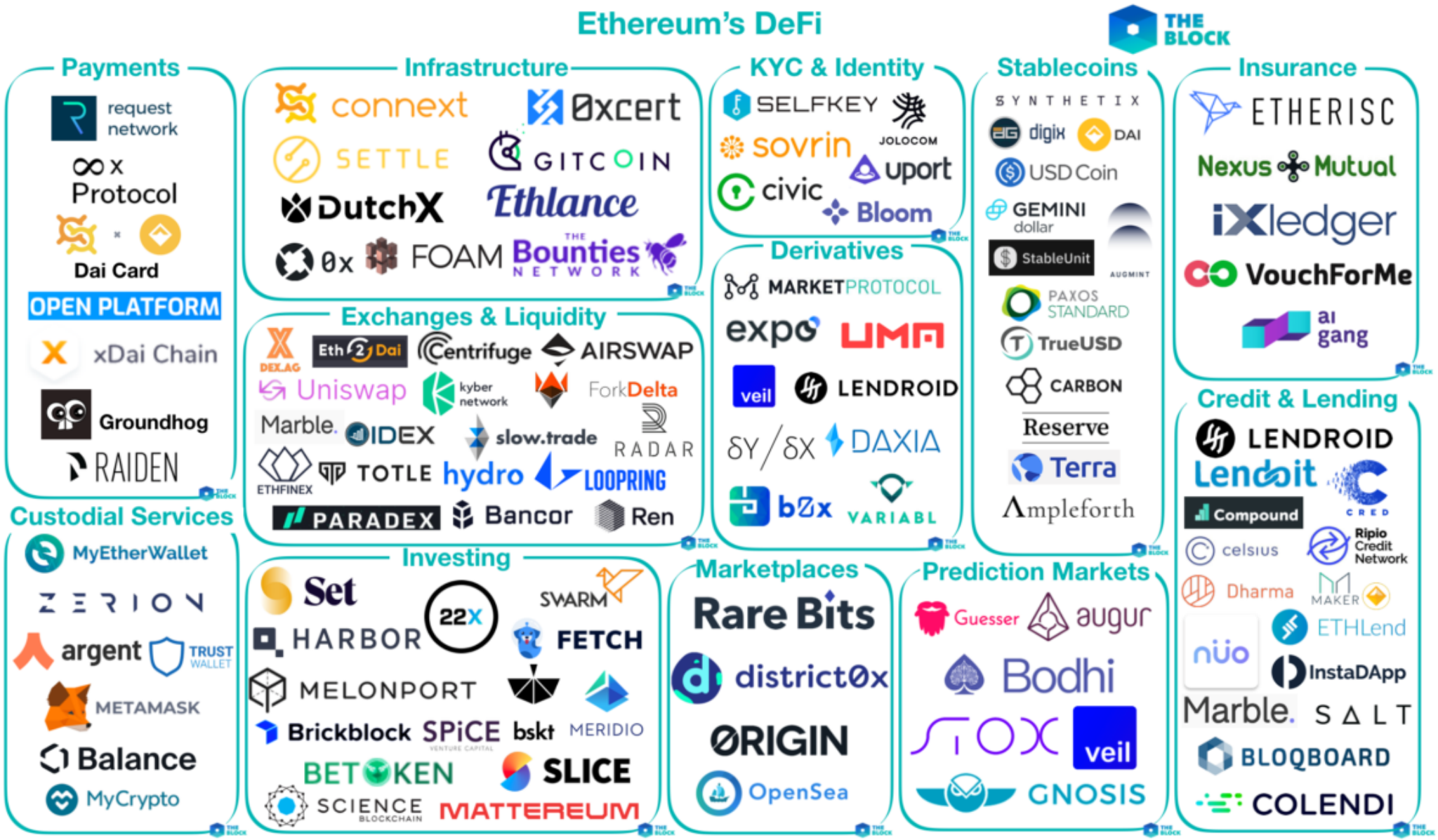

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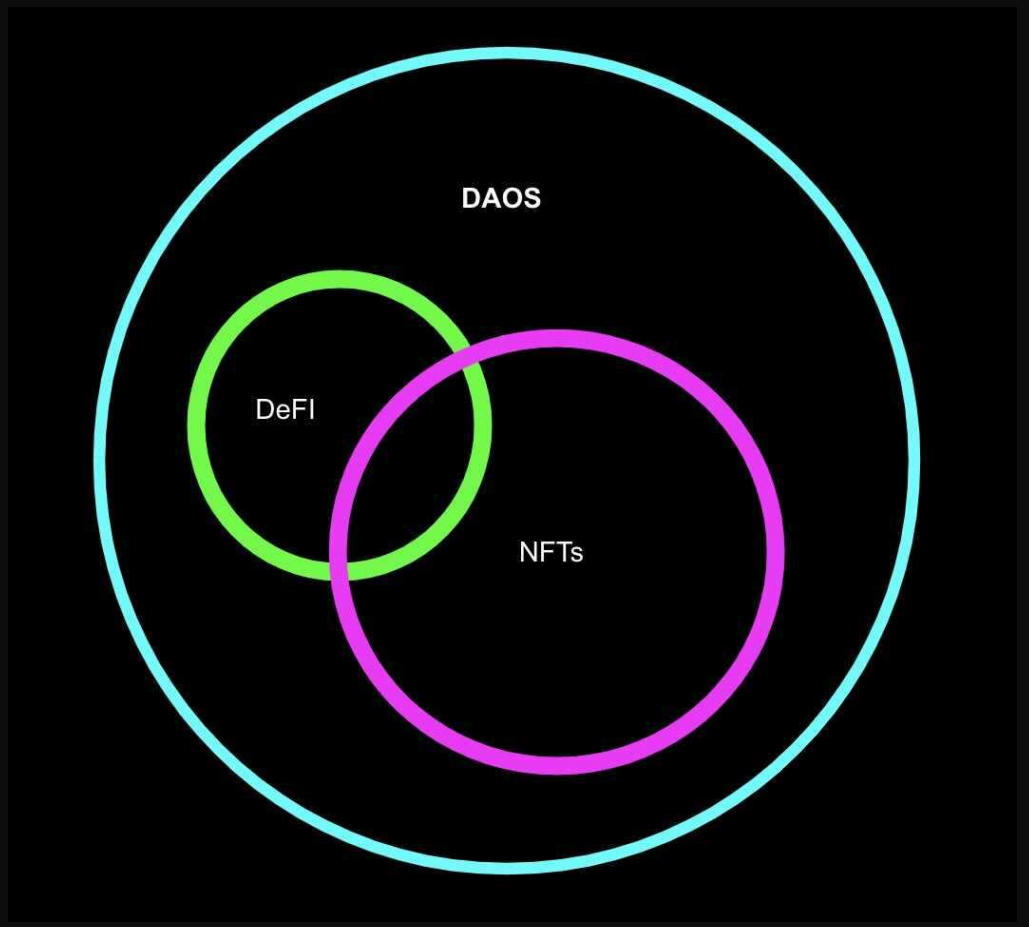
NFT - DeFi - DAO crossover



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What is an NFT?

Non Fungible Token

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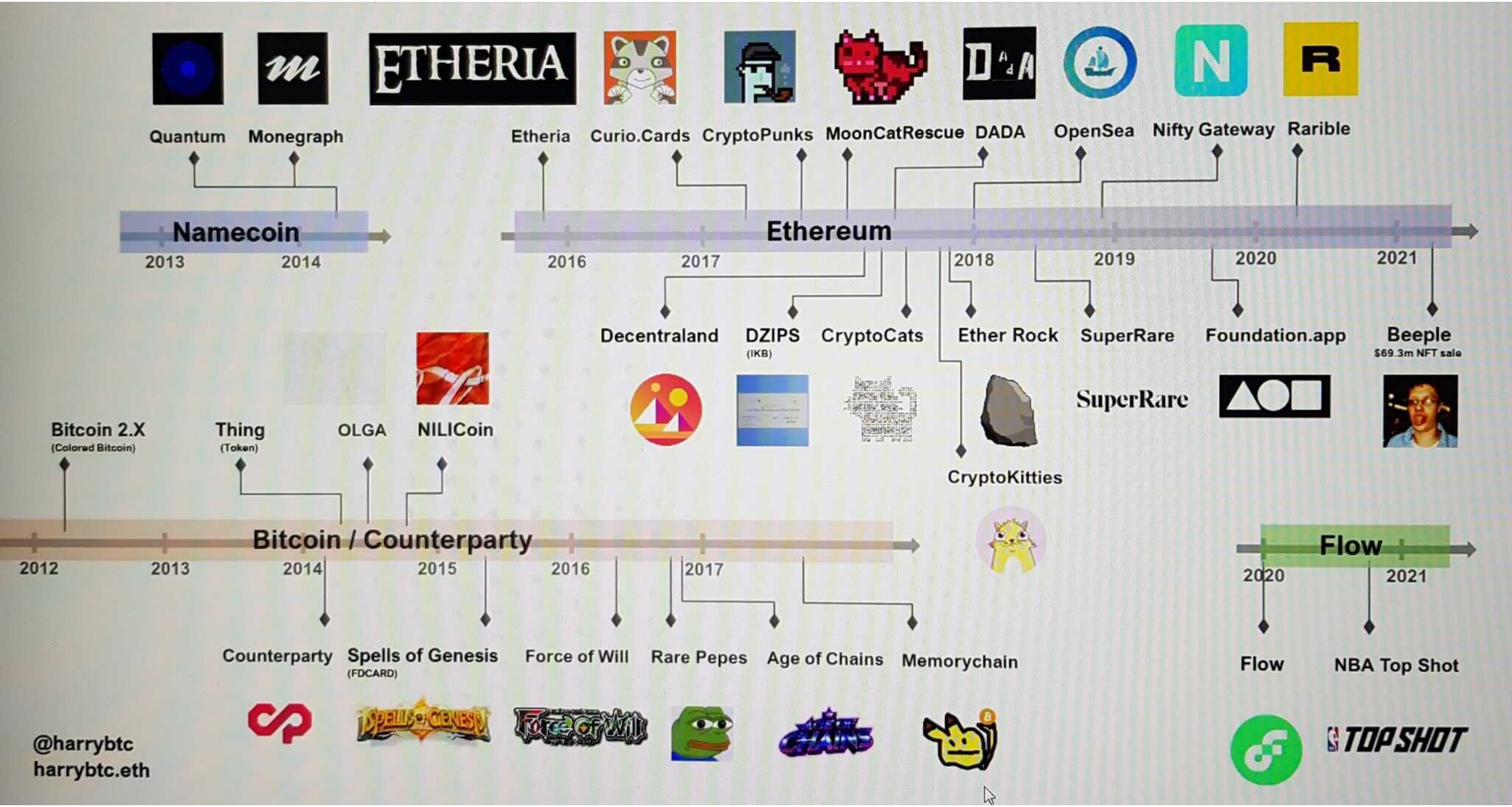


NFTs are:

- NOT just bragging rights
- NOT just jpegs

NFTs ARE:

- Giving form to the full dynamics of the creative economy
- Clubs/access rights into subcultures/elite groups
- Crypto primitives for construction of the metaverse
- A new form of property rights

+ also:

- legal and tax confusion
- concerns about carbon footprint

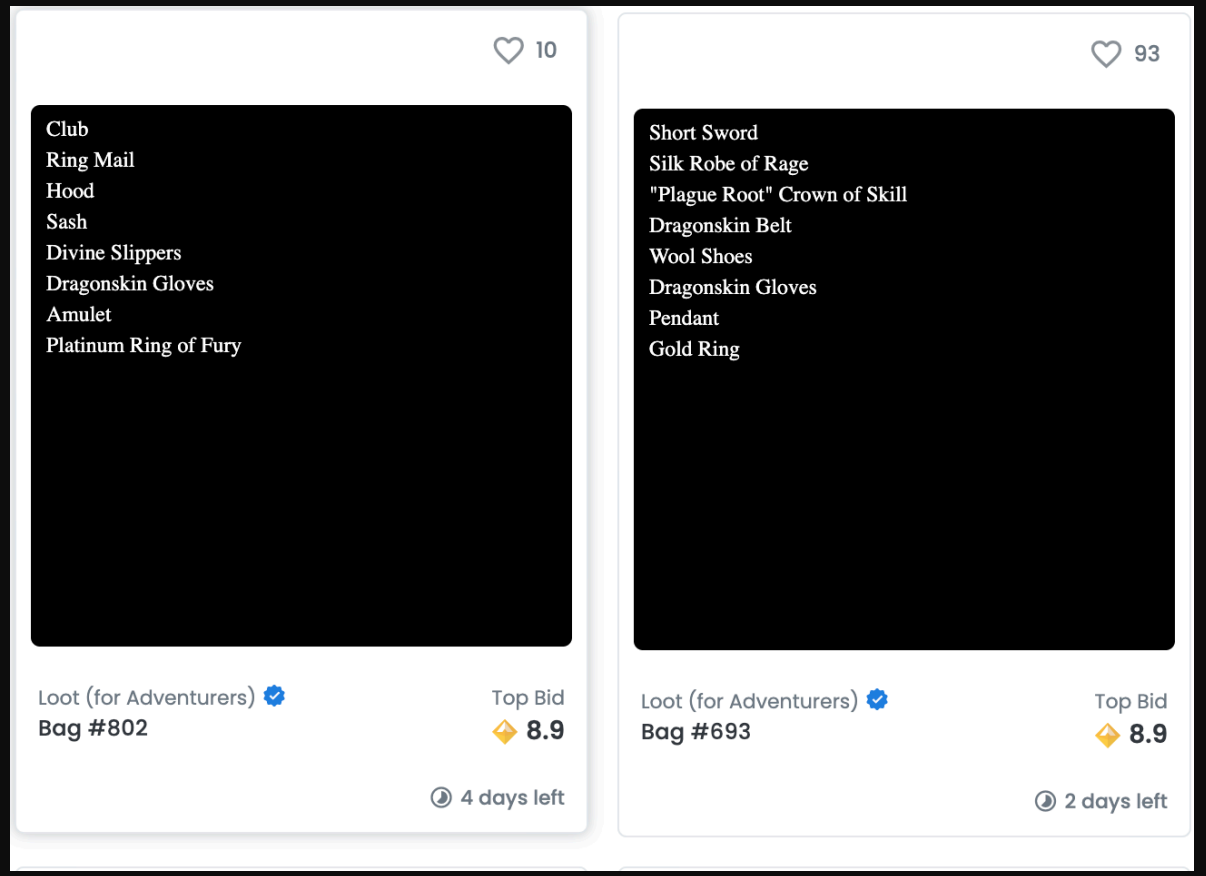
NFTs – select August 2021 sales

	Product	Sales	Change (30d)	Buyers	Txns
1	Axie Infinity	$852,482,090	▲ 44.32%	294,137	1,767,949
2	CryptoPunks	$534,332,348	▲ 928.00%	1,242	2,701
3	Art Blocks	$465,476,090	▲ 1,034.80%	10,575	47,286
4	Bored Ape Yacht Club	$195,505,153	▲ 465.53%	1,642	3,024
5	0N1 Force	$103,902,001	▲ 0.00%	4,891	11,644
6	Parallel Alpha	$98,461,674	▲ 16,936.68%	6,062	39,595
7	Pudgy Penguins	$85,368,443	▲ 38,514.13%	7,408	19,803
8	Meebits	$65,225,087	▲ 445.36%	1,726	3,800
9	Curio Cards	$57,464,145	▲ 2,011.69%	3,418	9,173
10	PUNKS Comic	$38,950,424	▲ 4,575.65%	2,017	4,624
11	NBA Top Shot	$35,598,541	▲ 61.22%	49,198	766,222
12	World Of Women	$32,831,799	▲ 4,678.30%	4,143	11,299
13	Cool Cats	$31,706,763	▲ 140.79%	2,628	5,144
14	Bored Ape Kennel Club	$31,639,643	▲ 110.13%	1,683	3,209
15	CyberKongz VX	$31,292,183	▲ 0.00%	2,929	8,921

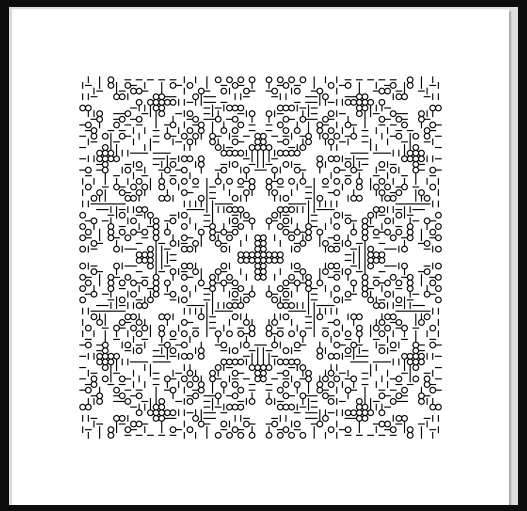
Loot

- Created on Aug 28, 2021 by Dom Hoffman
- Consists of items that players might need in a game
- Limited to 8000 Loot bags (all minted in 2 hours)
- All on-chain

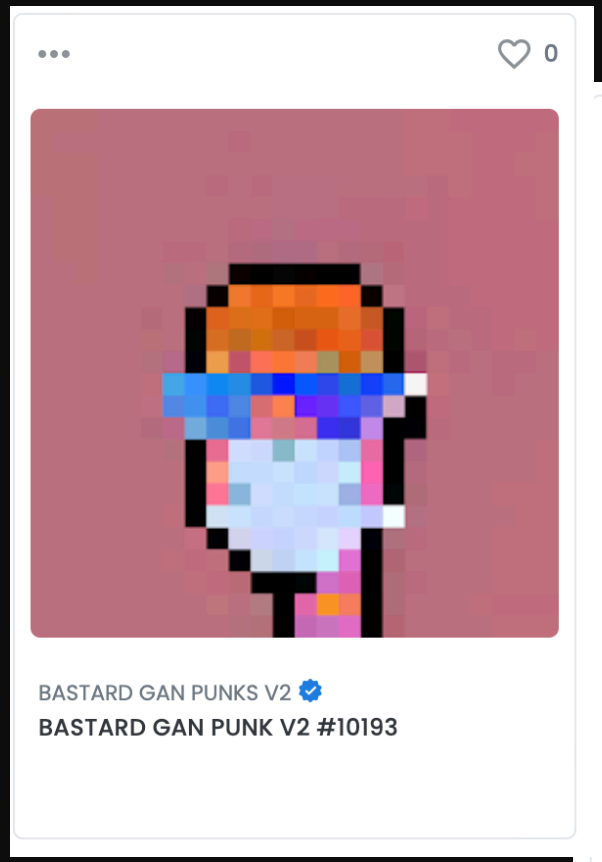
Loot = items for a game that has not been invented yet, which could be used in multiple games developed by anyone.



Generative Art



Autoglyph #1



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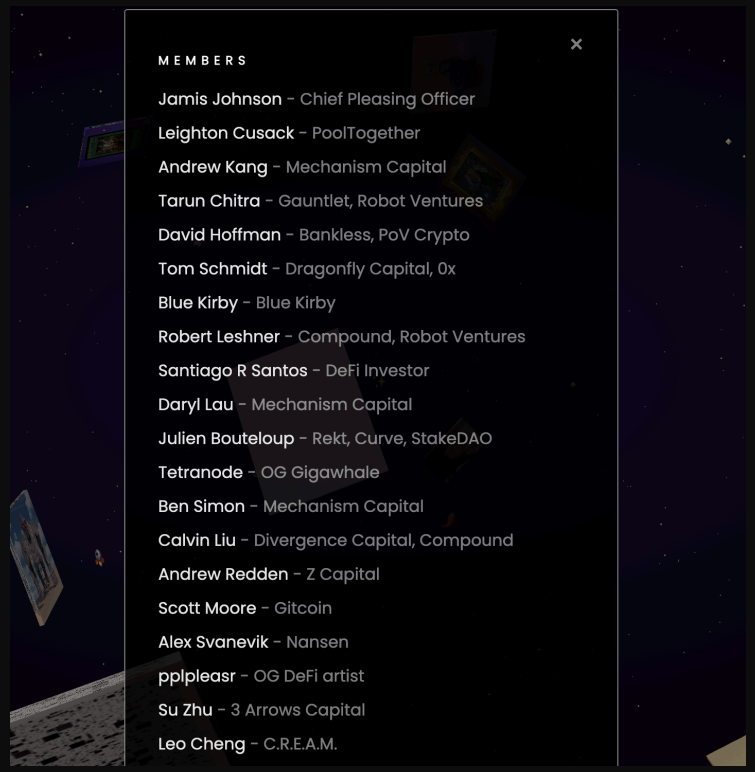
What is a DAO?

Decentralised Autonomous Organisation

NFT investment DAOs

- **DAO = A group of people coordinating via rules enforced through smart contracts**



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Regulatory and legislative challenges

- Any regulation better than no regulation
- Regulatory competition
- Creative destruction (regulatory protection of old economy incumbents)
- The problem of coordination of adoption