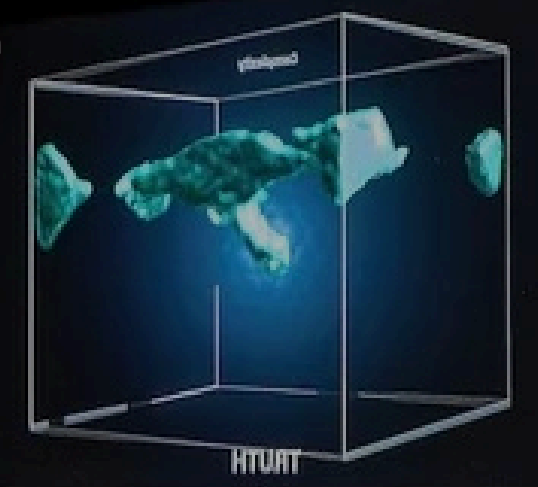
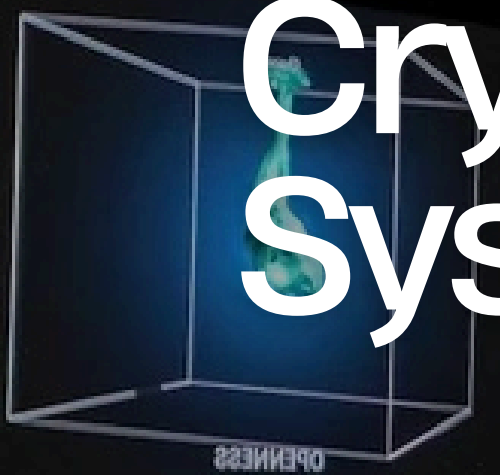
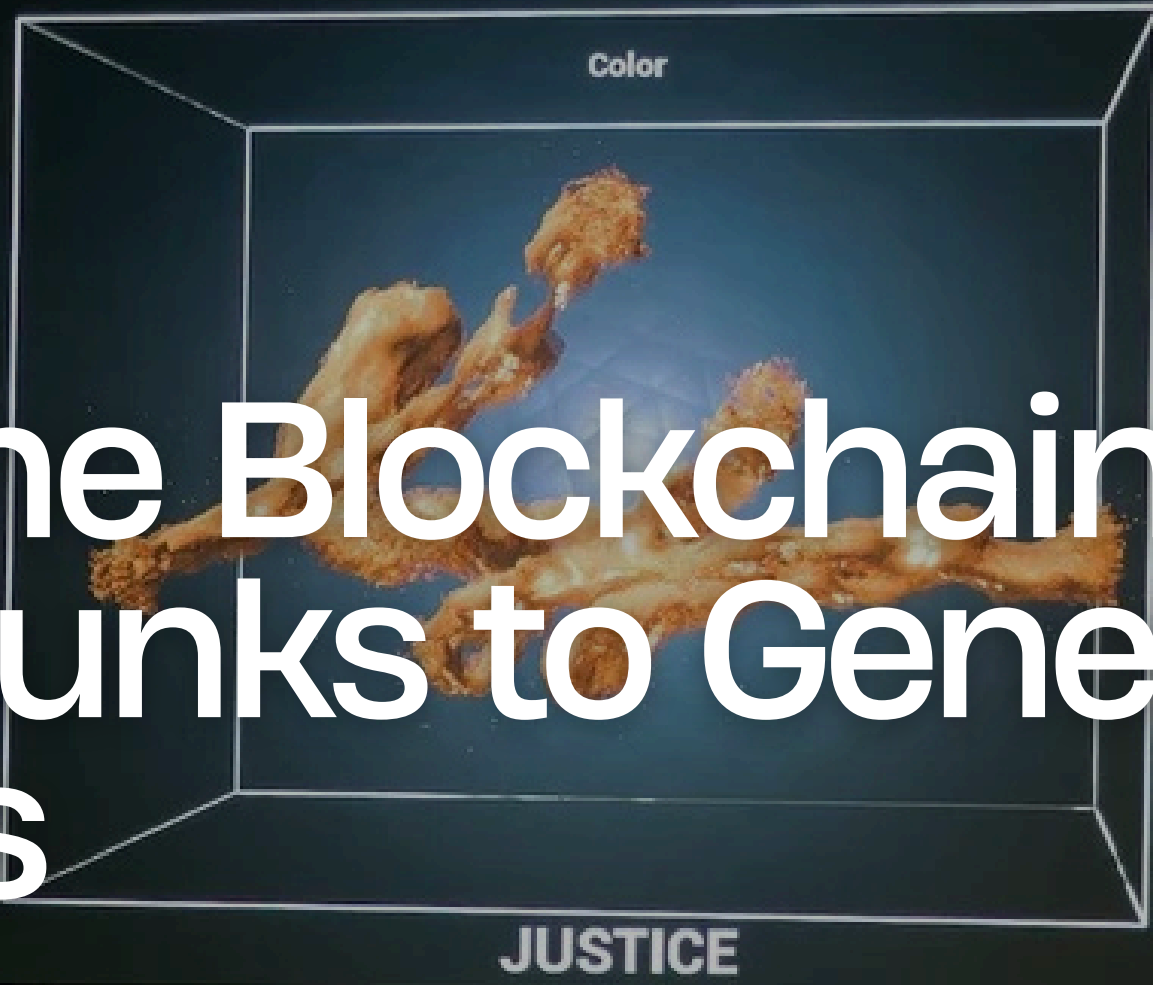


Art & the Blockchain

Art on the Blockchain: From CryptoPunks to Generative Systems



Zixuan Zhang
MAT 265 — Spring 2026

PART 1: Course Context

**This presentation explores how
blockchain technologies intersect with
art practices**



Generative art systems (Autoglyph)



NFT culture (CryptoPunks)



Platforms (Etherscan, OpenSea)





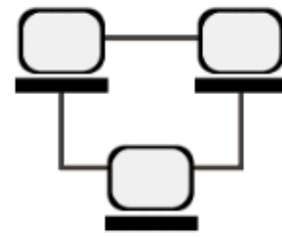
DECENTRALIZED

- The control/ power is not held by a single entity. Instead it is distributed among multiple participants.
- Even if one node is corrupted/ fails, the network repairs itself.



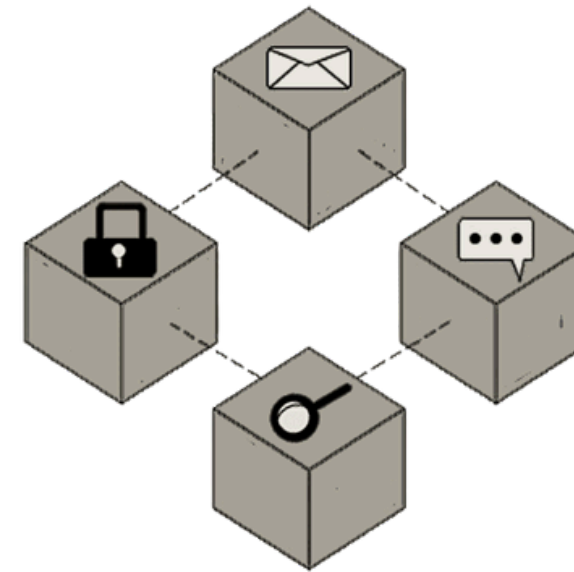
PEER TO PEER

- Direct peer to peer transaction of data or finance.
- Decentralized nature of blockchain instills trust in the process such that two unknown parties can directly interact/ transact with each other



DISTRIBUTED

- Data is distributed among the nodes (computers/ hard drives).
- Even if one node is tampered, the data does not get compromised.

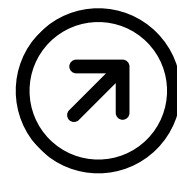


Blockchain

['bläk-,chān]

A digital database or ledger that is distributed among the nodes of a peer-to-peer network.

What is Blockchain?



Trust is replaced by code and distributed verification

- A decentralized digital ledger shared across many computers
- Records transactions in blocks linked together
- Transparent and nearly impossible to alter
- Transactions can be publicly verified through blockchain explorers such as Etherscan.

Bitcoin & Ethereum

Bitcoin (2009)

- Digital currency without banks
- Solves “double-spending” problem

Ethereum (2015)

- Programmable blockchain
- Enables smart contracts
- Enables NFTs and decentralized art platforms.



Key Terms

NFT (Non-Fungible Token):

- Unique digital asset linked to artwork

Wallet:

- Stores digital assets

Minting:

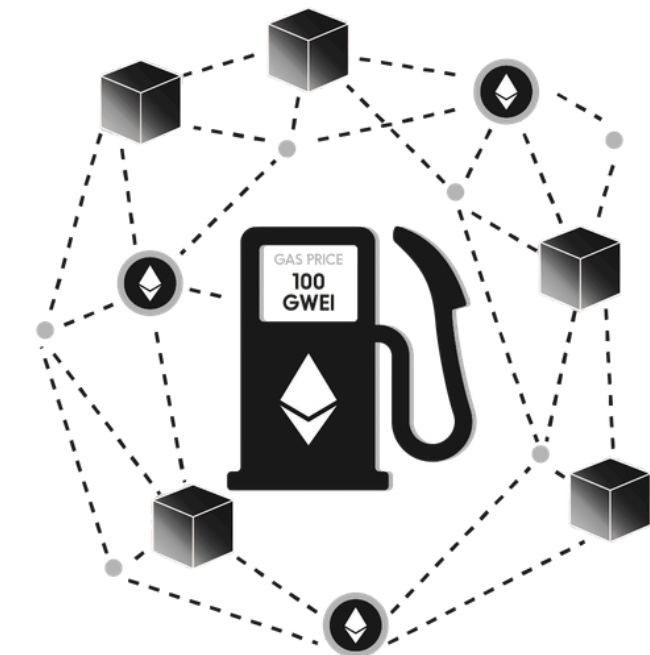
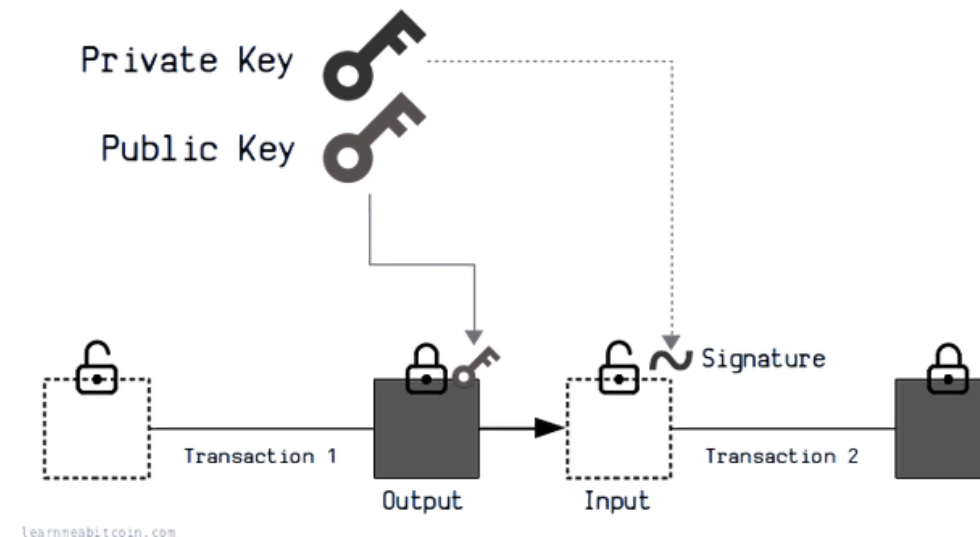
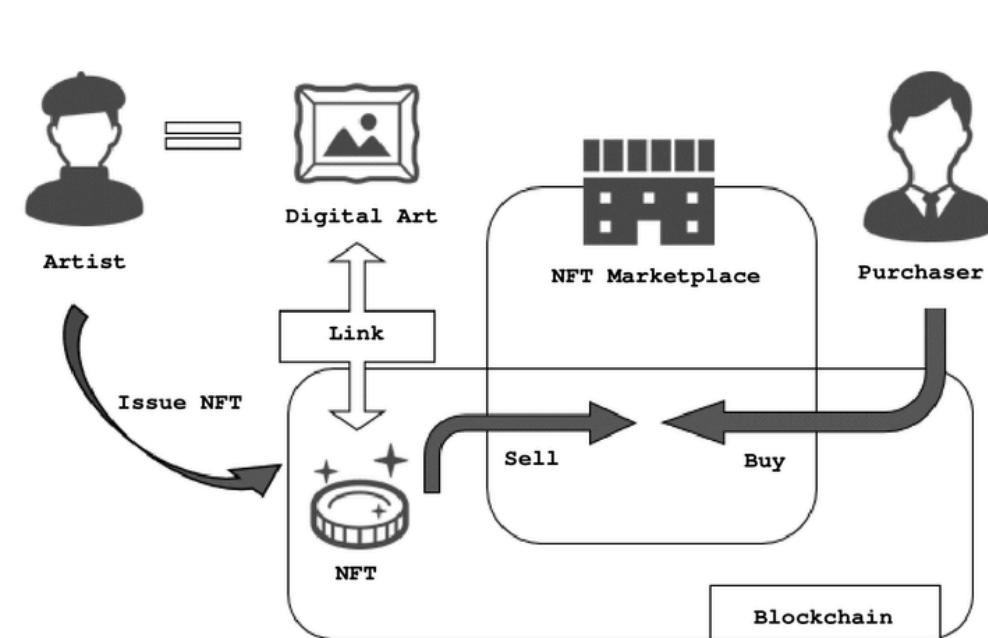
- Creating an NFT on the blockchain

Gas fees:

- Cost of transactions

Key idea

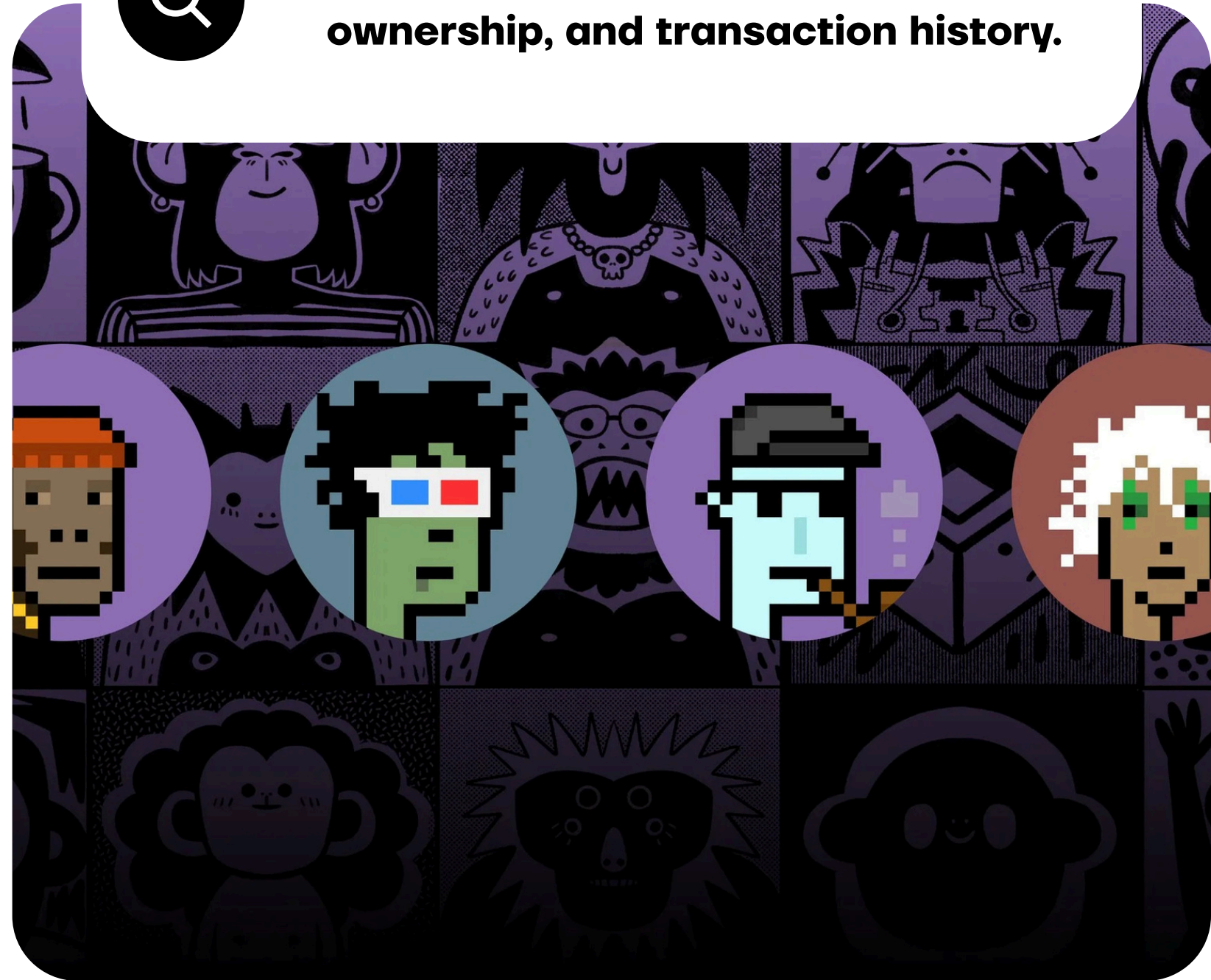
Digital files become collectible and ownable



Sources: Ethereum.org, Coinbase Learn, OpenSea Documentation.



**Blockchain records authorship,
ownership, and transaction history.**



PART 2: ART + BLOCKCHAIN

Blockchain Records



Creator



Ownership



Transaction History

Why It Matters for Artists?



- Removes traditional gatekeepers (galleries, institutions)
- Artists can sell directly
- Raises new questions:
- What is originality?
- What is ownership in digital space?
- Is value based on code, image, or context?

PART 3 : CASE STUDIES



- Created by Larva Labs (2017)
- 10,000 unique pixel characters
- One of the first NFT projects

CryptoPunks

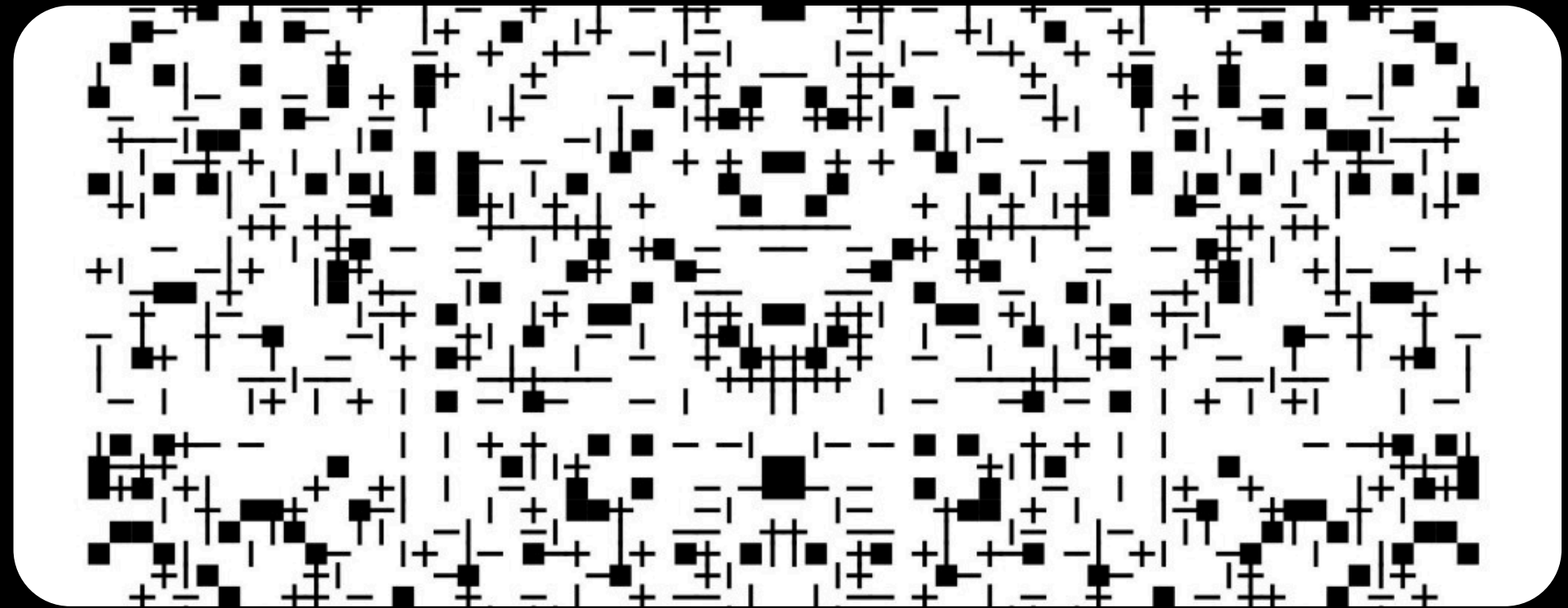
Why important

- Established NFT culture
- Introduced scarcity + algorithmic variation
- Ownership and rarity are recorded on-chain.



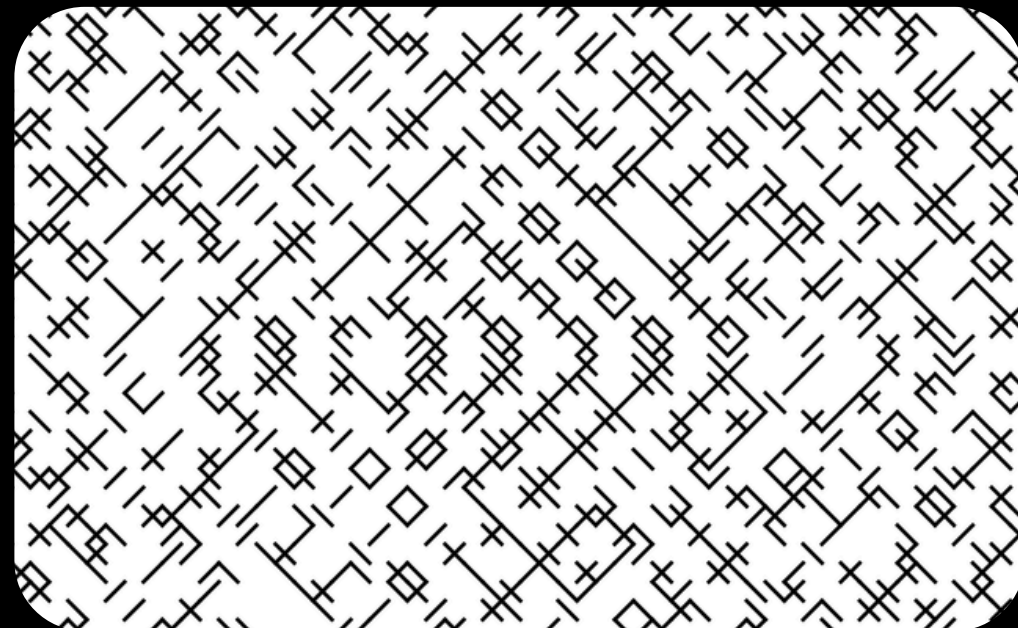
PART 3 : CASE STUDIES

Autoglyph



- Minimal visual language (ASCII-like patterns)
- Generated from smart contract

- Created by Larva Labs (2019)
- Fully on-chain generative art



The artwork = the code itself

- Image → System
- Object → Process

Key Difference

- Artwork is generated directly by code on the blockchain
- Not just stored — it exists as an algorithm

PART 4: PLATFORMS



Etherscan

Radical transparency

- Blockchain explorer
- Allows anyone to:
- View transactions
- Verify ownership
- Read smart contracts
- Makes blockchain activity transparent and traceable.



OpenSea

Art becomes part of an economic ecosystem

- NFT marketplace
- Users can:
- Buy/sell NFTs
- Explore collections
- Connects digital ownership with online marketplaces.



Ethereum now uses ~99% less energy



PART 5 : Energy & Cost

- Blockchain uses energy
- Two systems:
 - Proof of Work (high energy)
 - Proof of Stake (more efficient)
- Ethereum's transition to Proof of Stake significantly reduced environmental concerns around NFTs

Conclusion

Blockchain transforms:



Ownership



Authorship



Distribution

Final Thought

Blockchain changes not only how art is sold, but also how originality and value are understood in digital culture.

Sources

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Etherscan. (n.d.). Etherscan: Ethereum blockchain explorer. <https://etherscan.io/>

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Additional diagrams and reference images sourced from educational and research materials.

Thank you

Zixuan Zhang

JUSTICE

