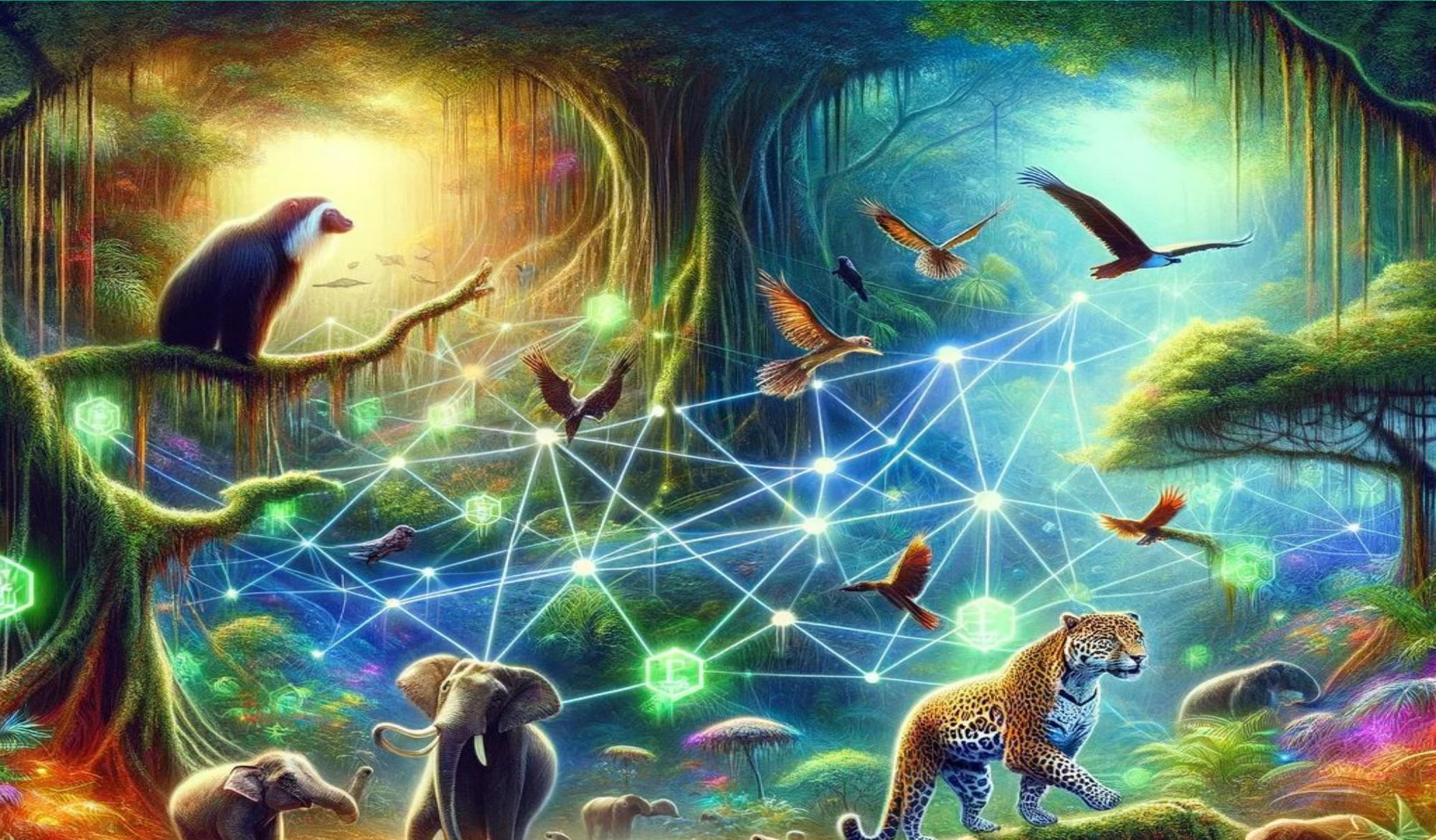


# Blockchain + Earth



# Preserving Nature's Ledger: Blockchains in Biodiversity Conservation

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## Abstract

In the contemporary era, biodiversity conservation emerges as a paramount challenge, necessitating innovative approaches to monitoring, preserving, and enhancing the natural world. This paper explores the integration of blockchain technology in biodiversity conservation, offering a novel perspective on how digital resilience can be built within ecological contexts. Blockchain, with its decentralized and immutable ledger and tokenization affordances, presents a groundbreaking solution for the accurate monitoring and tracking of environmental assets, thereby addressing the critical need for transparency and trust in conservation efforts. Unlike previous more “theoretical” approaches, by addressing the research question of how blockchain supports digital resilience in biodiversity conservation, this study presents a grounded framework that justifies which blockchain features are essential to decipher specific data contribution and data leveraging processes in an effort to protect our planet’s biodiversity, while boosting potential economic benefits for all actors involved, from local farmers, to hardware vendors and artificial intelligence experts, to investors and regular users, volunteers and donors.

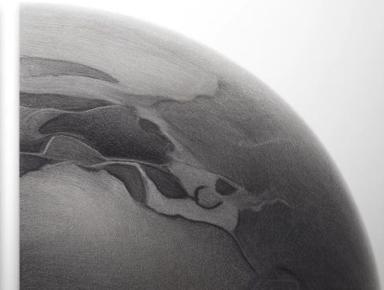
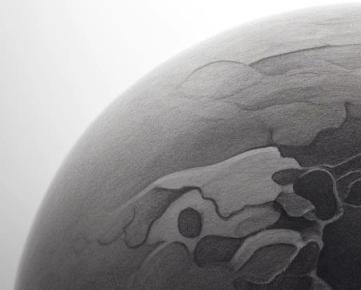
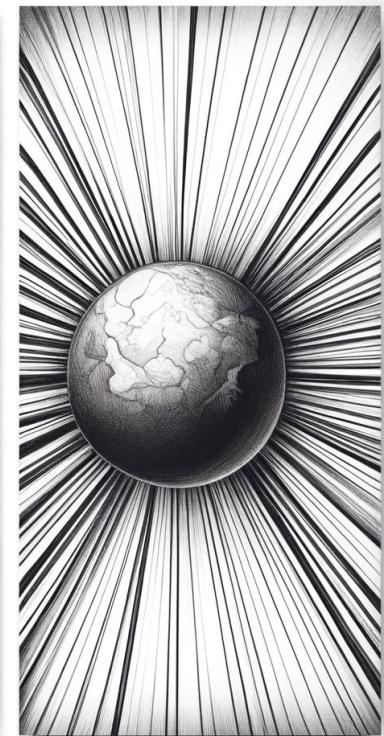
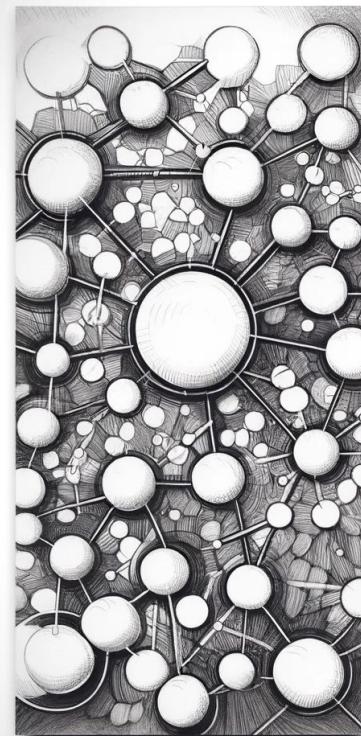
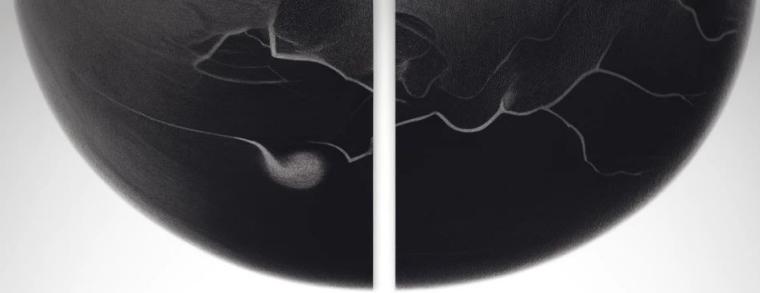


**“Blockchains are transparent and secure decentralized digital ledgers, ensuring that all data recorded is both visible and unalterable.”**



# Decentralization

- ✓ No single point of failure
- ✓ Fair
- ✓ Interoperability



# Transparency

- Immutable / unalterable
- Audited
- Real-time / publicly available

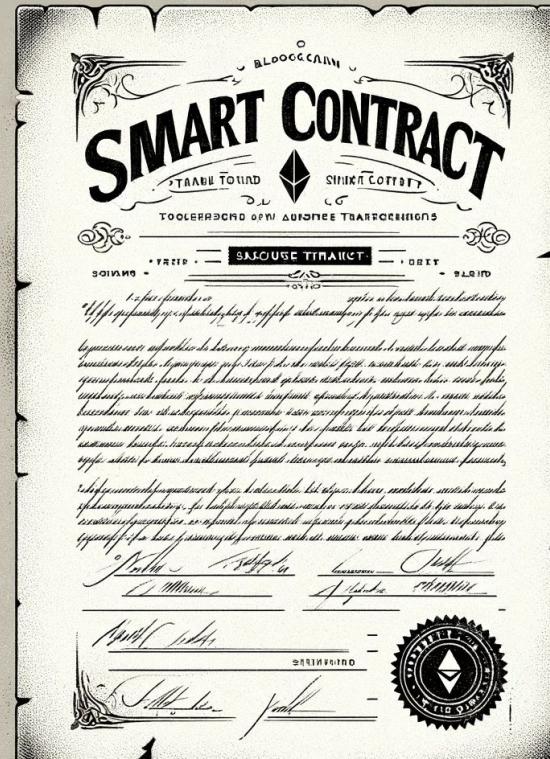
...



*Imagine  
supply chain + donations*

# Smart Contracts

- ✓ Implement any logic / asset
- ✓ Automated & upgradeable
- ✓ Security & trust



# Oracles

- Outside world data feeds
- Drones, IoT, Cameras
- AI, Decentralized computation



# Governance

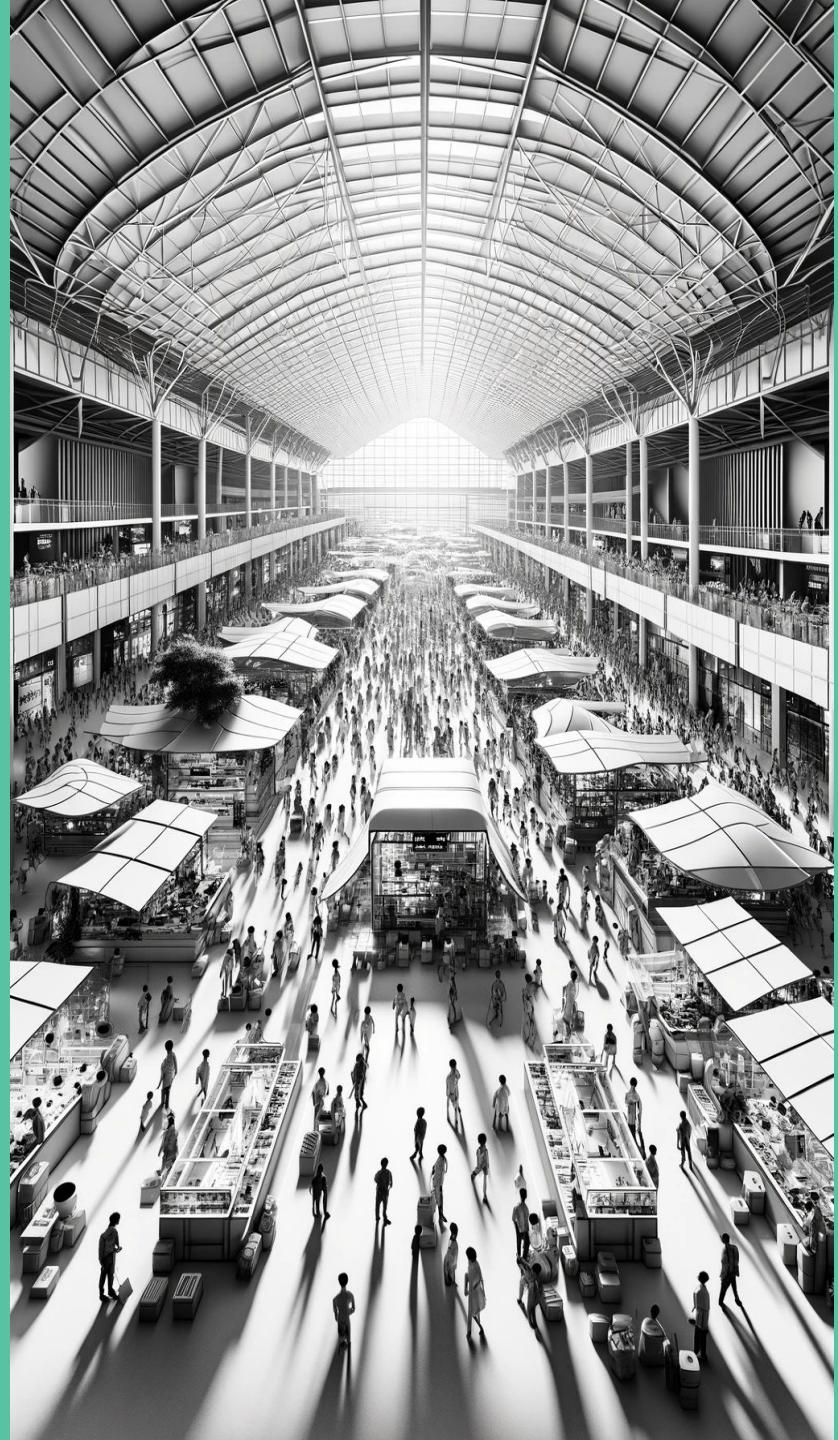
- ✓ E-voting
- ✓ Auctions & procurement
- ✓ ID & token management



# Marketplaces

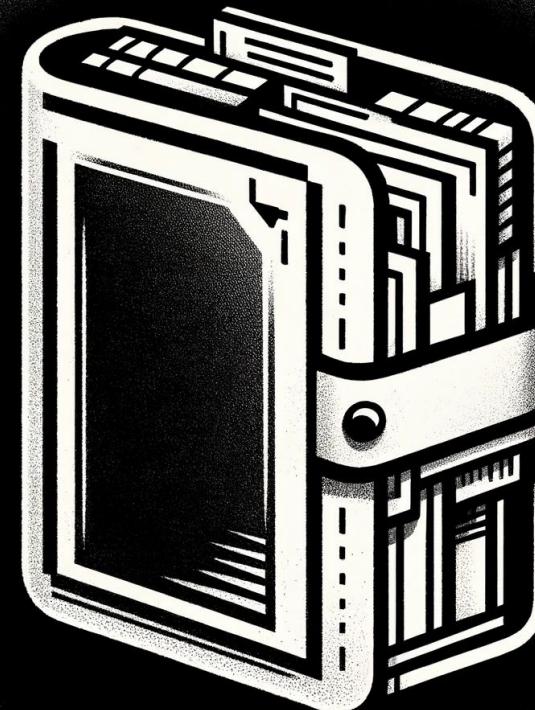


- ✓ Access to global audience
- ✓ Custom rules & loyalties
- ✓ Derivatives



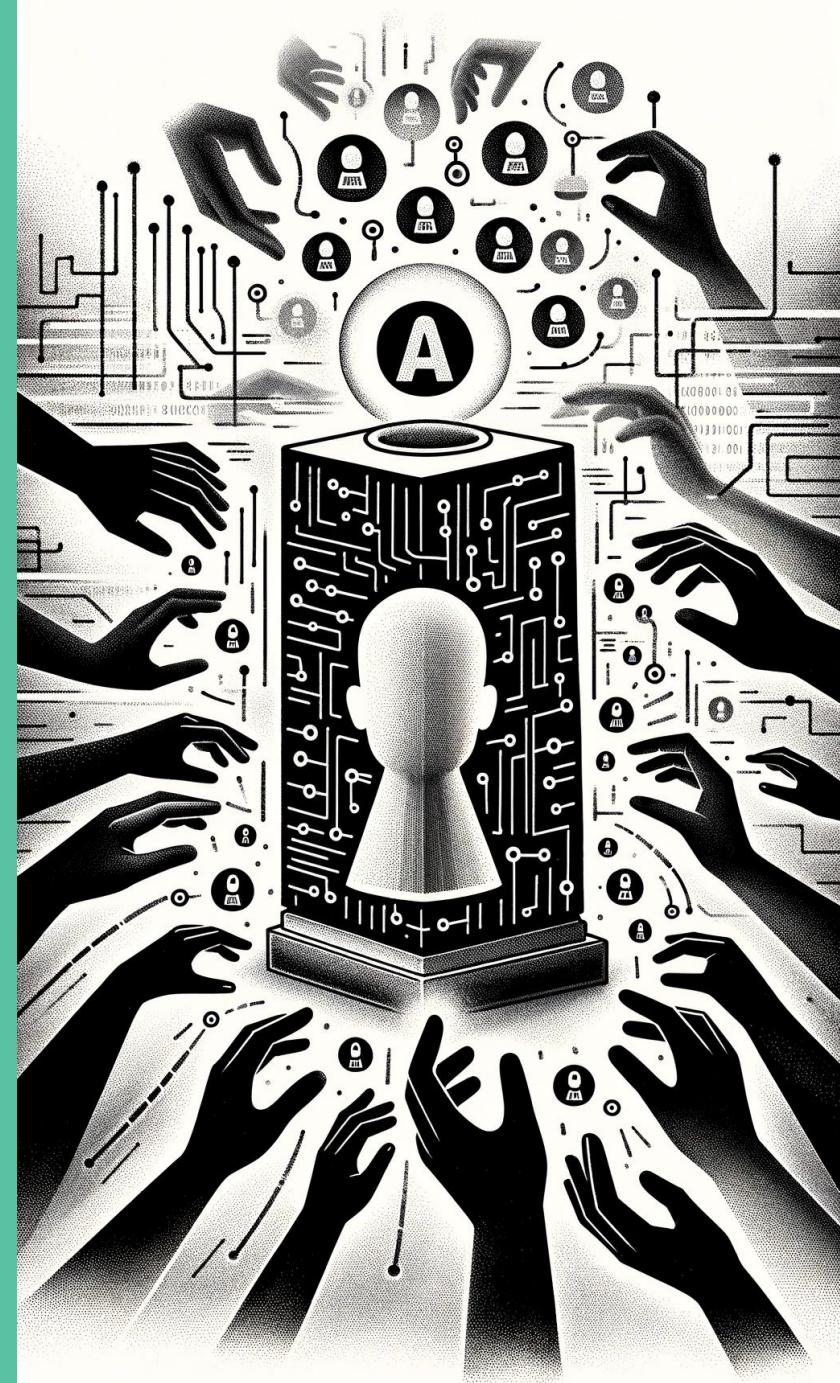
# Smart Wallets

- password-less
- internet-less
- identity / KYC / embedded



# AI and Privacy

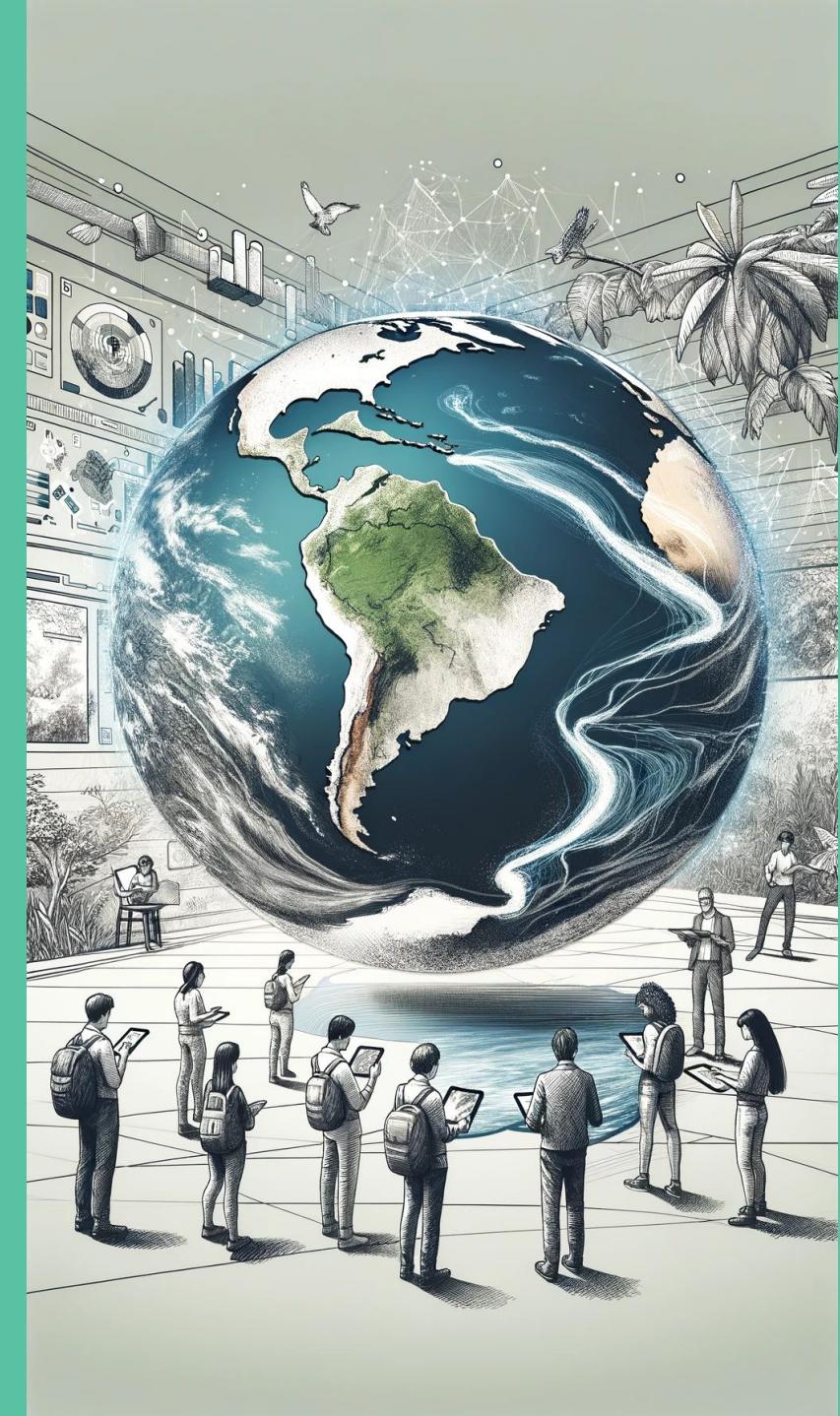
- ✓ Contribute w/o disclosing
- ✓ real-time
- ✓ data marketplace



# Data Repurpose



- ✓ Education
- ✓ Gamification
- ✓ Resilience



# Resilience



Monitoring



demotivate pollution  
by incentives



Real-time  
collaboration  
& recovery

# Rapid settlement. Green cost reduction.

• • •

“ In the last two years, blockchain finality has become significantly faster and cheaper, marking a major leap in technology efficiency.

Modern blockchain designs can handle hundreds of thousands transactions per second.

• • •



A photograph of two women outdoors, smiling and holding a large cardboard sign. The woman on the left is wearing a blue long-sleeved shirt under a red hoodie and a dark baseball cap. The woman on the right is wearing a blue t-shirt and a dark baseball cap. They are standing in front of a large, textured rock formation. The sign they are holding has the words "HAPPY EARTH Day" written on it in green, hand-painted letters.

HAPPY  
EARTH Day