Introduction to Blockchain

Alec Shaw
Euphrates Group

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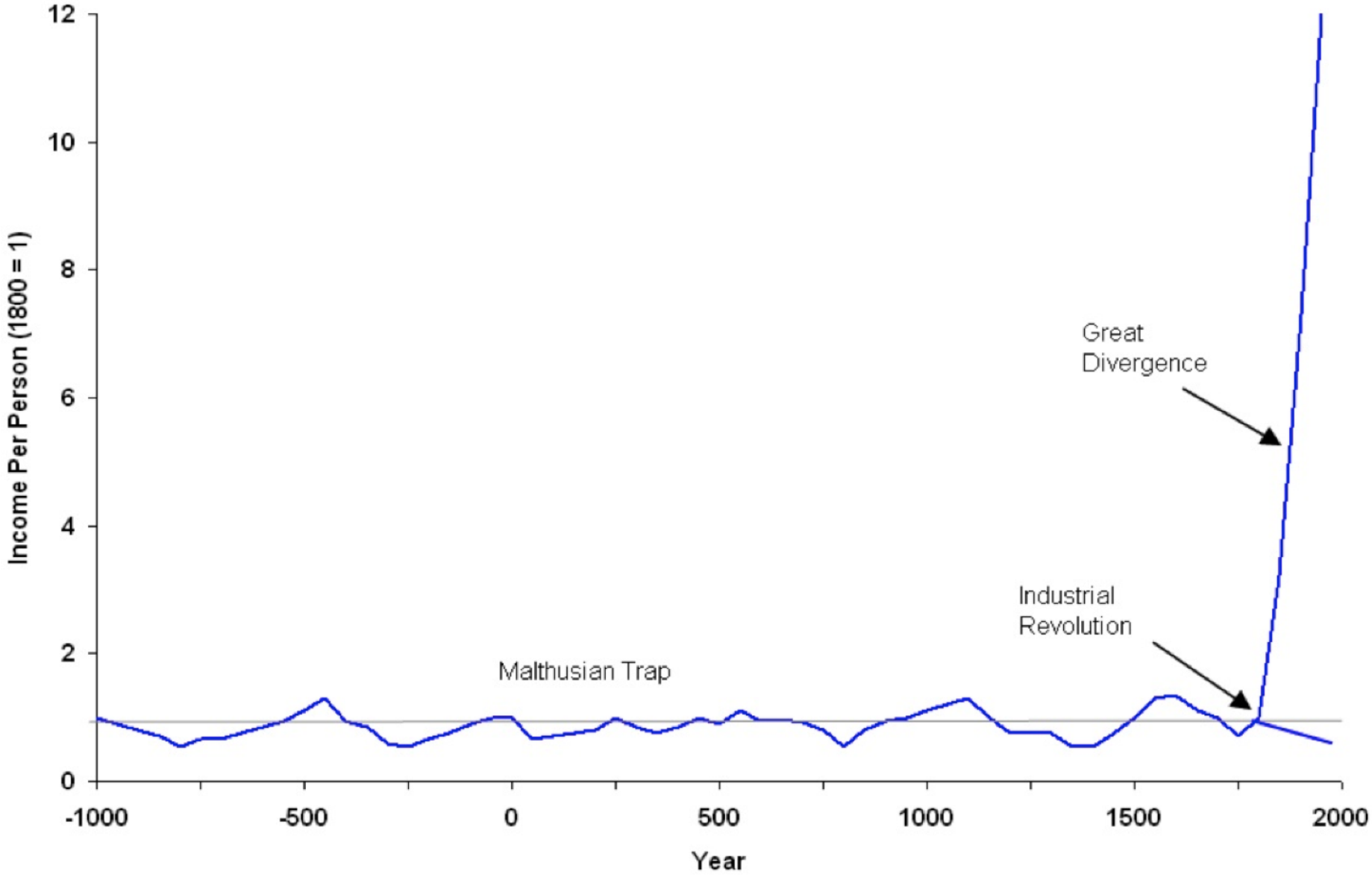

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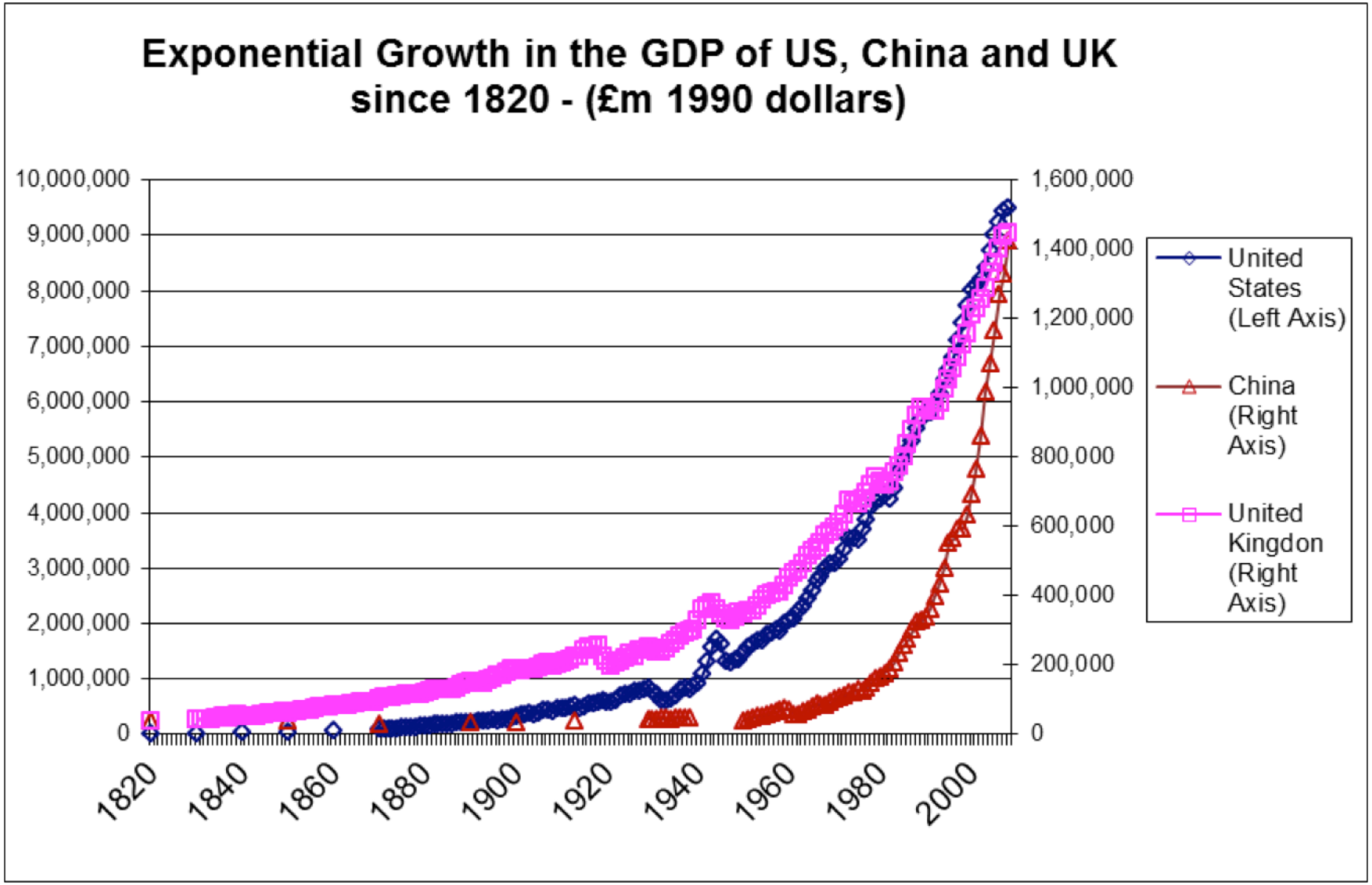

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What is a blockchain?

BLOCK
CHAIN

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What is a blockchain?

- Public, globally accessible, write-only database
- Ledger in which transactions of value are recorded chronologically

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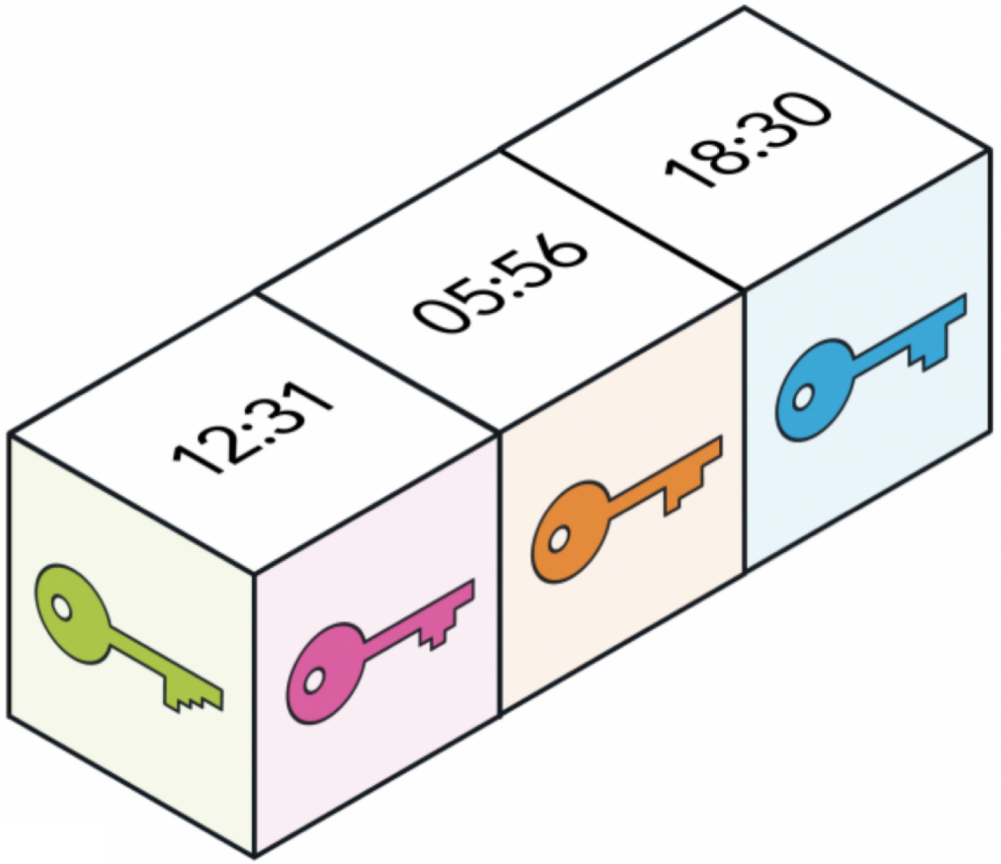
Core Principle 1: Immutabile

- **Immutable**: Information cannot be altered



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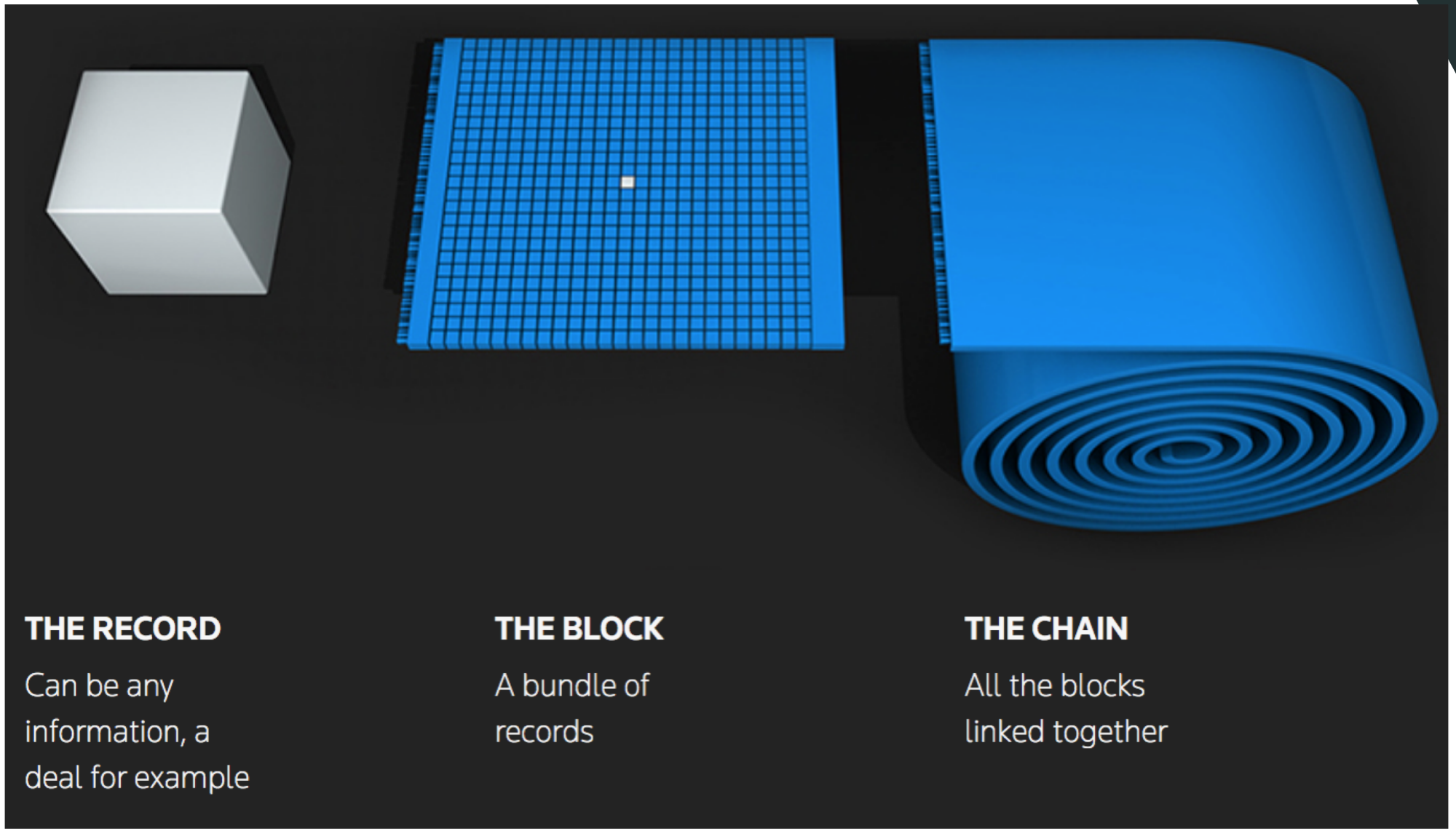

THE RECORD

Can be any information, a deal for example

THE BLOCK

A bundle of records

THE CHAIN

All the blocks linked together

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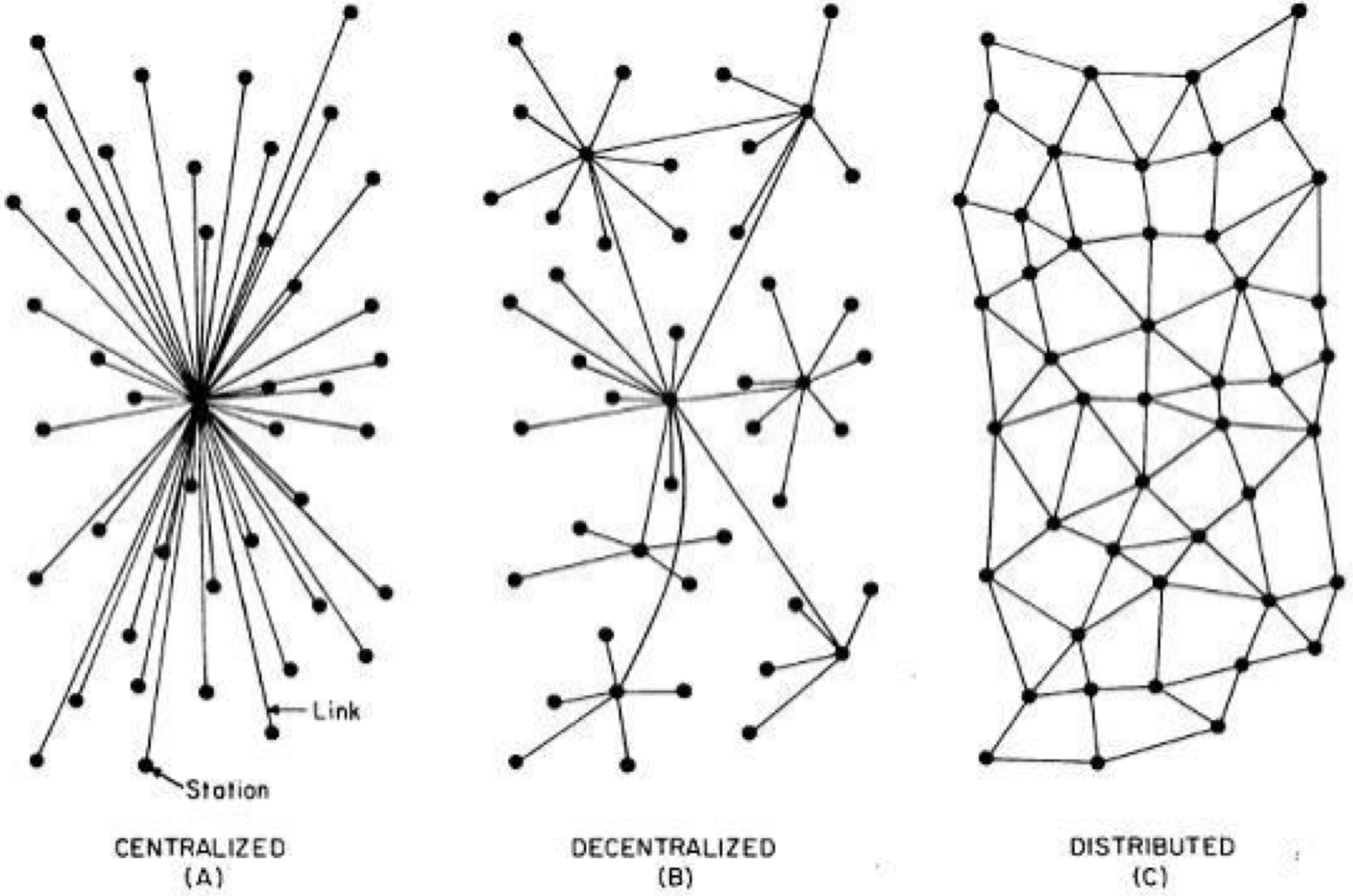
Core Principle 2: Secure

- The network **cannot** be hacked



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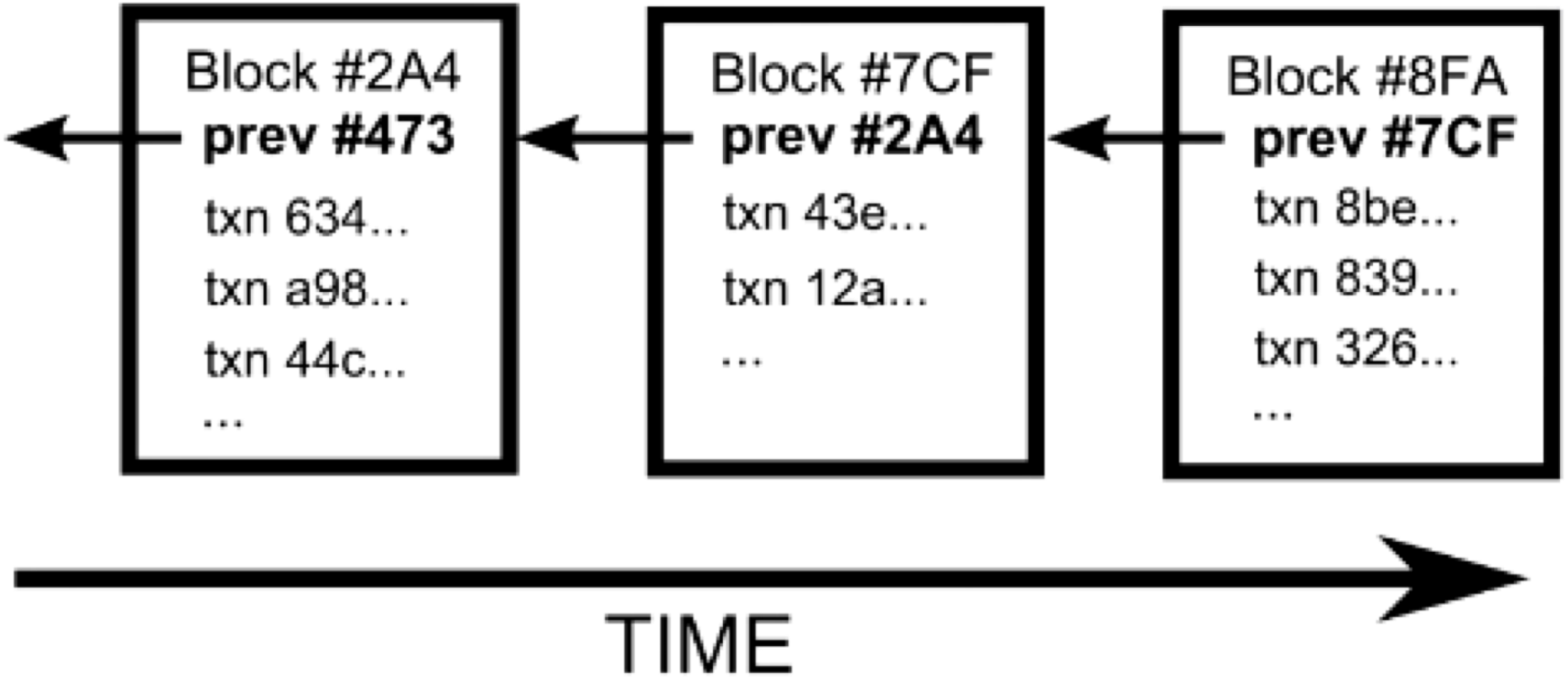
Core Principle 3: Trustless

- **Trustless**: The process of determining truth is not confined to a single entity



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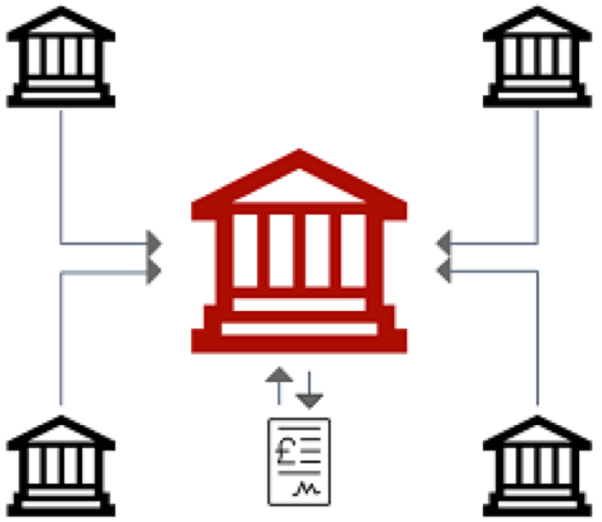
Core Principles 4

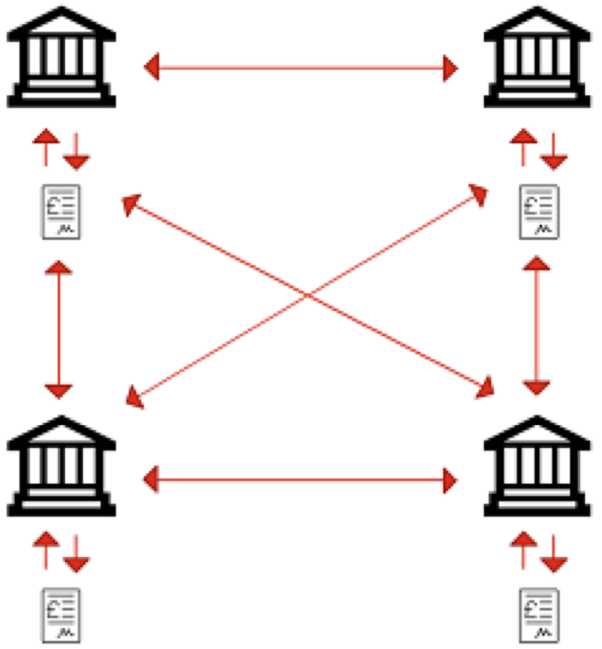
- **Peer-to-peer**: Without the third party, true p2p transactions exist

Verification



Traditional approach

Database is controlled by a central and trusted third-party



Blockchain approach

Each participant has a copy of the database, ensuring immutability

- **Nodes**: Thousands of computers verifying transactions
- Transaction must match on all nodes
- One Immutable ledger

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Smart Contracts

What is it?

Computer code with specified contractual clauses and functional outcomes are encoded into an immutable blockchain

Why should I care?

Automatically monitors, executes and enforces commercial legal agreements

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Smart Contracts

Key Benefits

- Reduced transaction cost
- Reduced transaction time
- Reduce third party dependencies

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