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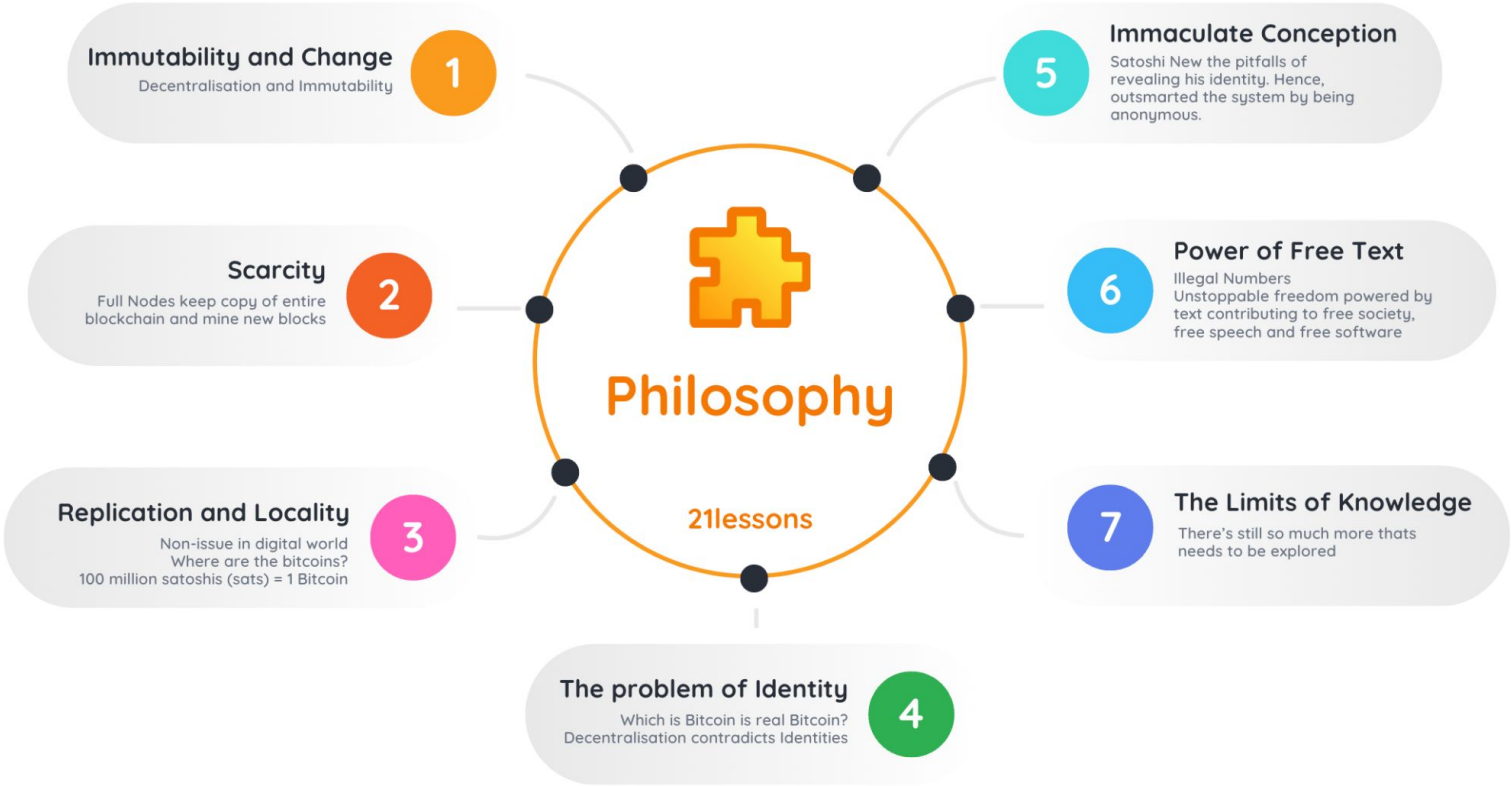
Bitcoin Talents

Sid Jain | Session 1 | Assignment 1

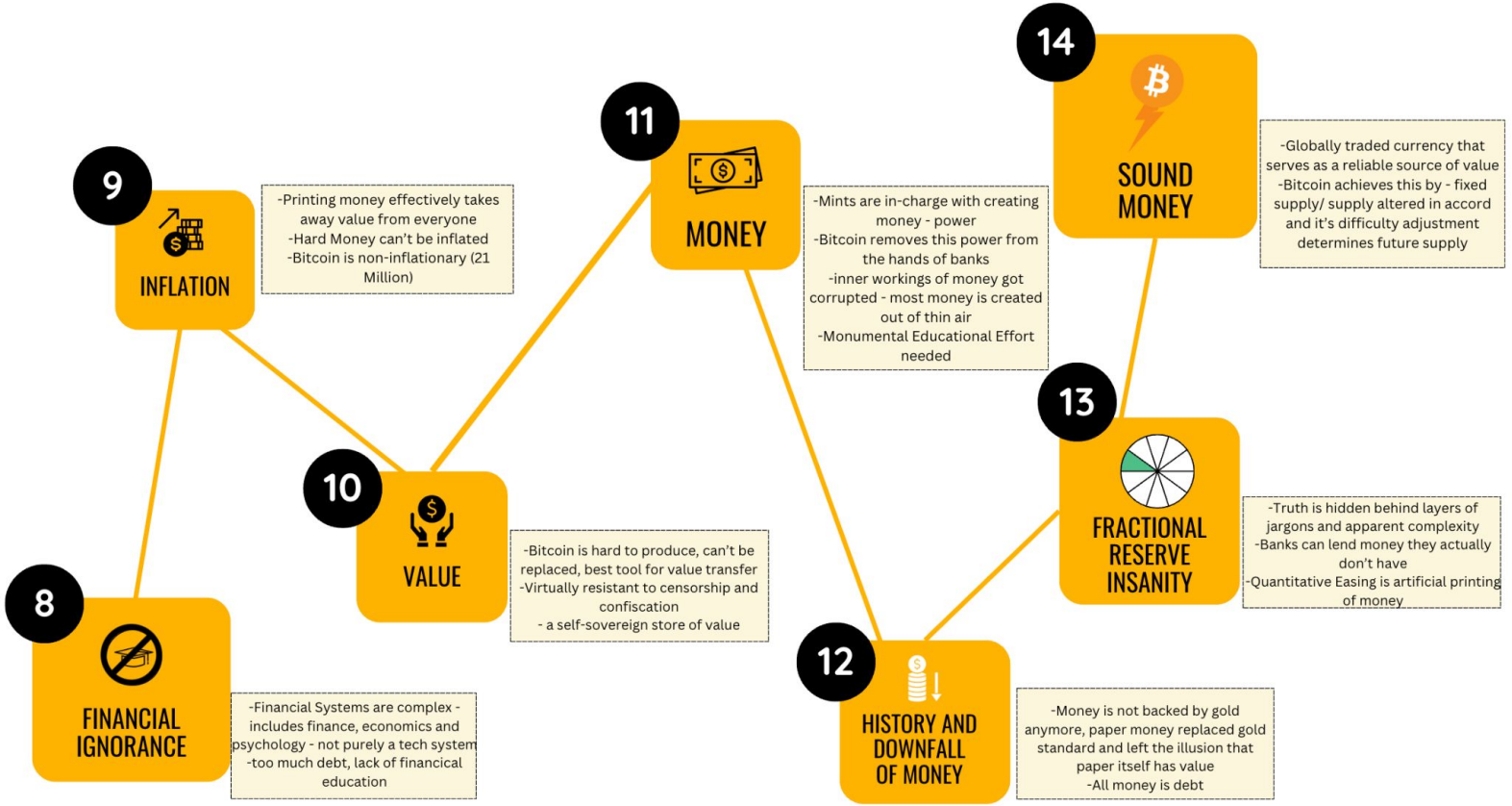
February 03, 2025

21 Lessons

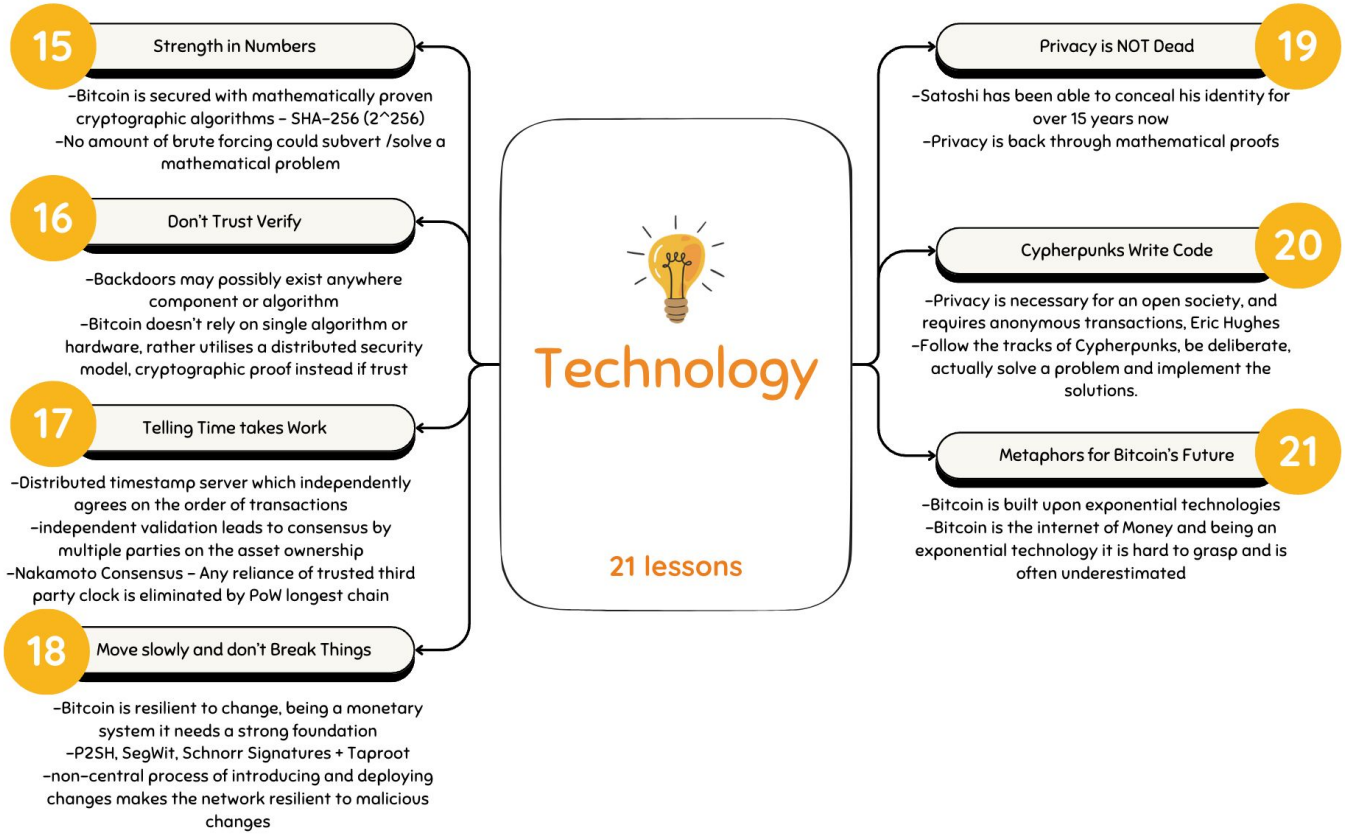
Chapter 1 - Philosophy (Key Learnings)



Chapter 2 - Economics (Key Learnings)



Chapter 3 - Technology (Key Learnings)

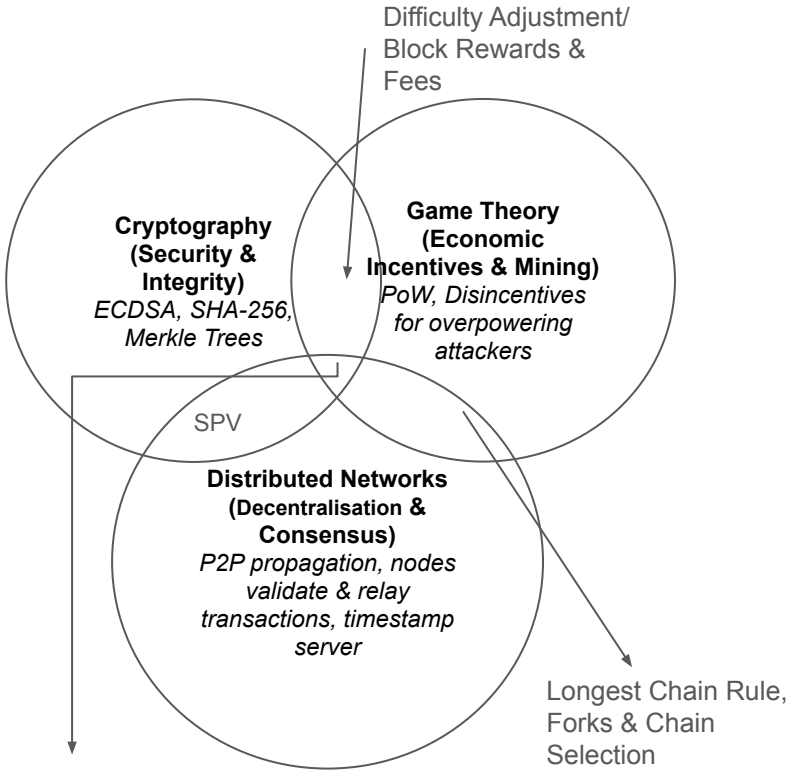


Bitcoin Whitepaper (Key Learnings)

What Problems Bitcoin Solves?

Problem	Bitcoin's Solution
Double Spending	Transactions are recorded in a **public ledger (blockchain)** and confirmed via **Proof-of-Work (PoW)**, making them immutable.
Need for trusted Third	Uses **cryptographic signatures** and **decentralised nodes** to verify transactions instead of relying on banks.
Reversibility in Traditional Finance (Fraud/Chargebacks)	Transactions are **irreversible** once confirmed, preventing chargebacks and fraud.
Centralized Control of Money	**Decentralisation** ensures no single entity can control issuance or transactions.
Censorship & Transaction Restrictions	**Permissionless** system: anyone can send/receive Bitcoin without approvals.
Inflation & Currency Devaluation	**Fixed supply of 21 million BTC** prevents arbitrary money printing.
High Cost of Trust-Based Systems	Removes intermediaries, enabling **low-cost global transactions.**

Venn Diagram - Bitcoin's Core Innovations

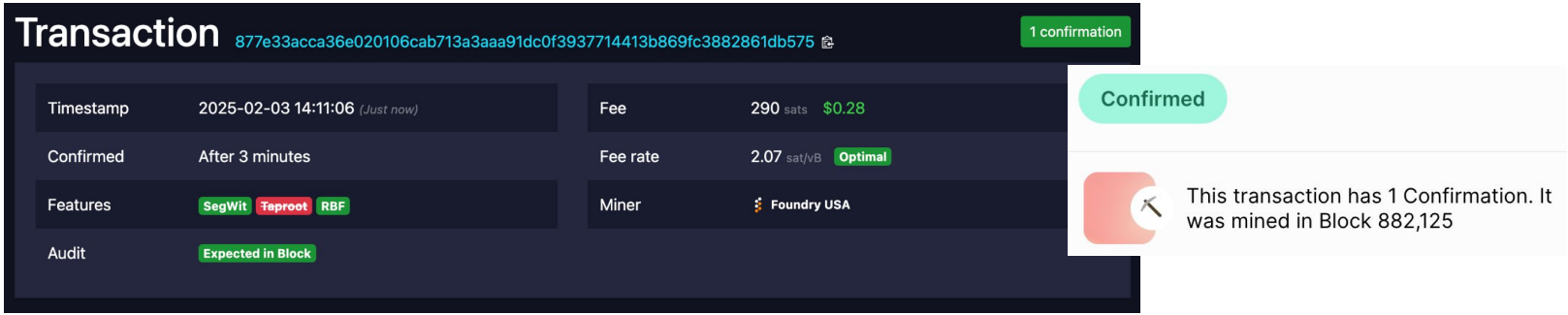


A trustless, Decentralised, and Immutable Financial System

Bitcoin Transaction Practical

Transaction Initiation: Generated a Bitcoin address using Electrum Wallet and sent 0.001062 BTC.

TXID: 877e33acca36e020106cab713a3aaa91dc0f3937714413b869fc3882861db575



Mempool Observations

Transaction appeared in the mempool before confirmation.

Observed fluctuation in unconfirmed transactions and fees.

Confirmation time depended on network congestion and fee priority: ~18 Minutes

Transaction confirmed in 2 blocks (3 minutes).

Verified on multiple explorers for consistency.