
Blockchain

Under The Guidance of
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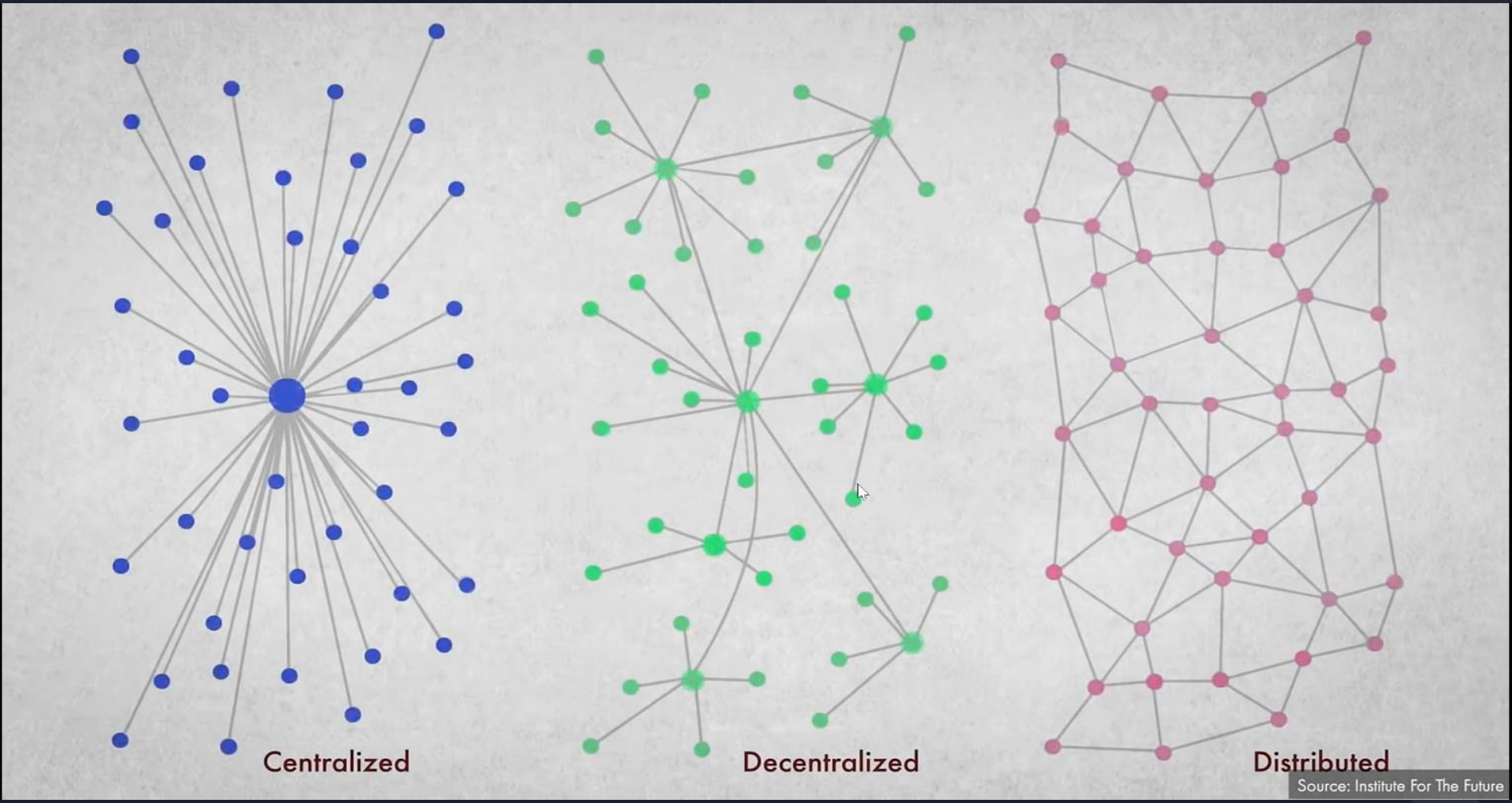
Index

BLOCKCHAIN

- Blockchain is a decentralized ledger of all transactions across peer-to-peer network.
- It is a technology that enables Bitcoin and is also applied to many business processes.
- It not only performs transactions but also ensures anonymity and security of the users.

Types of Systems...


Centralized
Decentralized
Distributed
Source: Institute For The Future

Current Banking System

John

Sends $10 to Kat through a bank

Bank

Acts like a third party and takes commission of $1

Kat

Receives $9

Issues in Banking System

There were few issues in the previous banking system that lead to the rise of Blockchain technology.

How Blockchain Works?

In the Blockchain, the information is Structured in the form of Blocks

Each block is made up of 3 Main things

1. Data
2. Hash
3. Hash of the previous block

DATA

TO:

FROM:

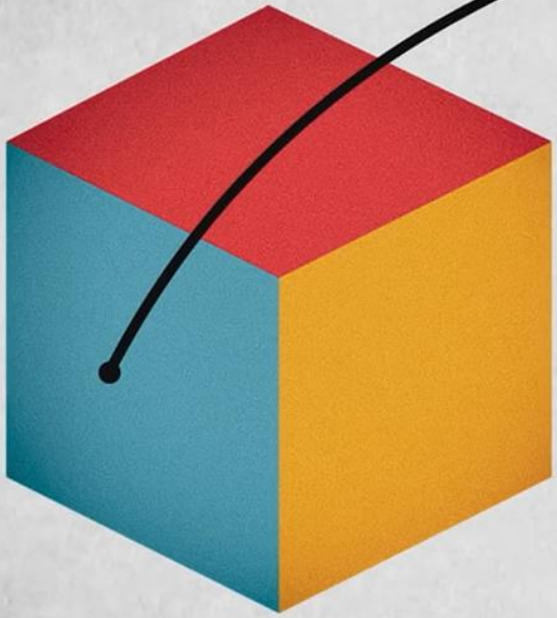
AMOUNT:

BITCOIN BLOCK EXAMPLE

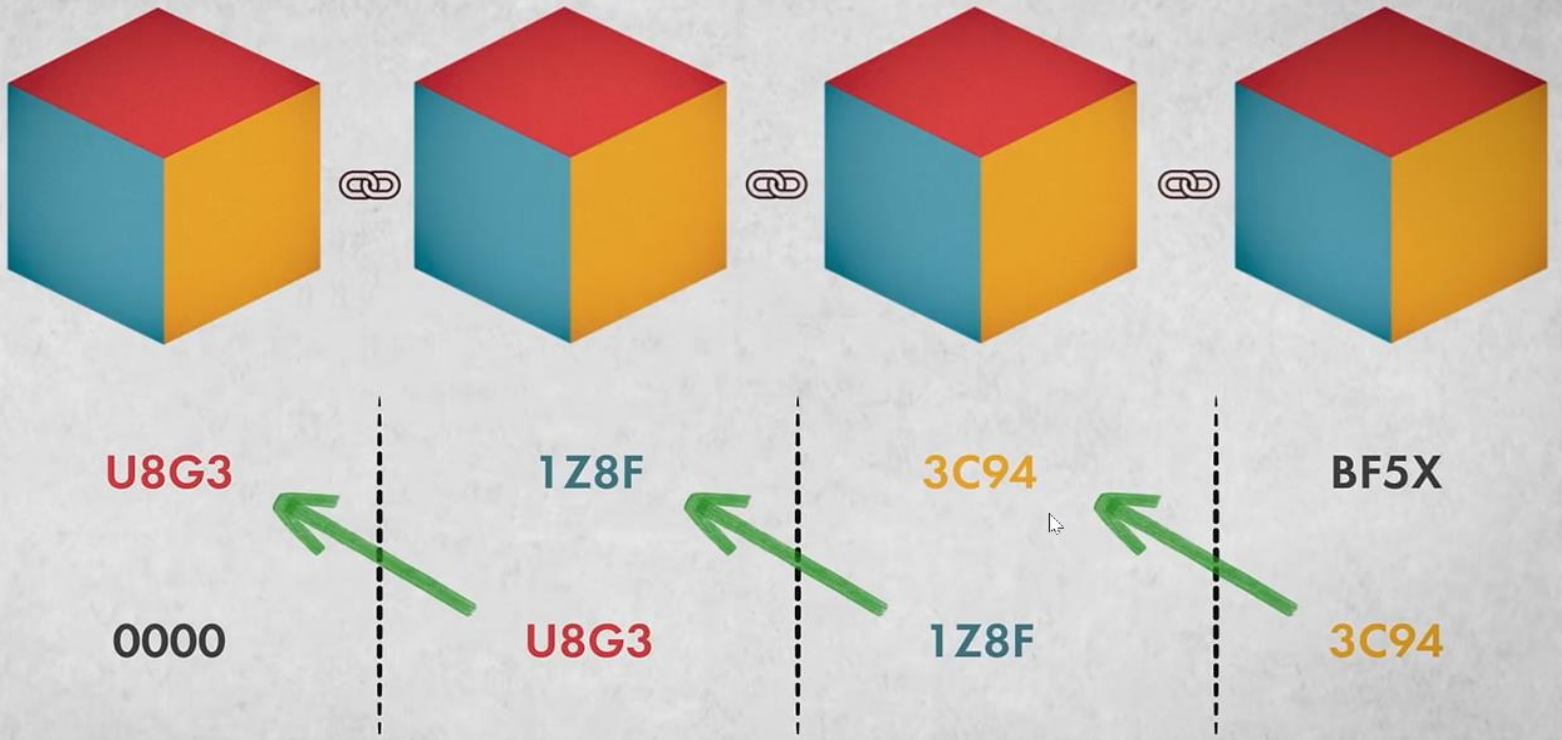
HASH

e2f9f0948jf8h2085hfk83hcdmh923

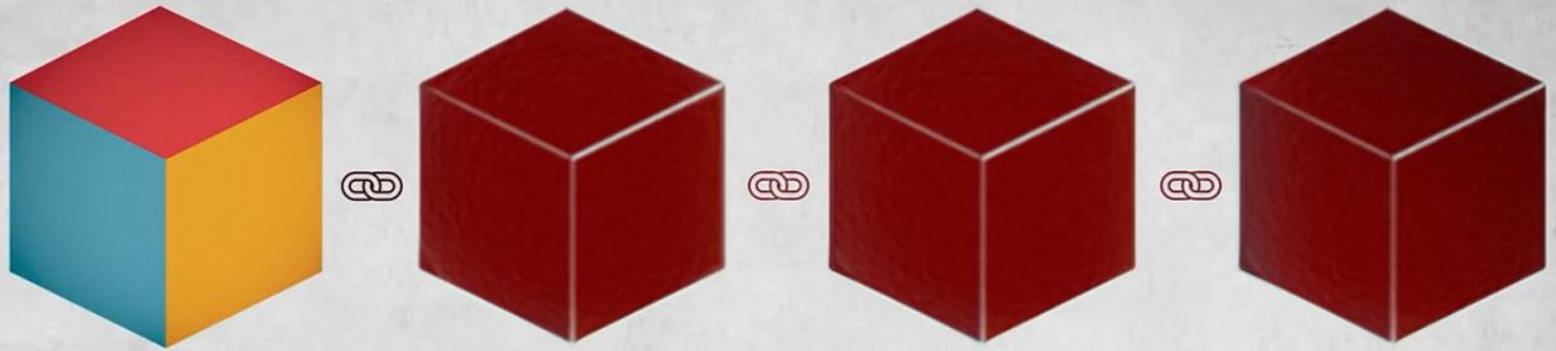
HASH OF THE PREVIOUS BLOCK



LINKS ALL THE BLOCKS


Hash
U8G3
1Z8F
3C94
BF5X
Previous Hash
0000
U8G3
1Z8F
3C94

DATA TAMPERED



Hash	U8G3	2K8F	V9Ho	78D8
Previous Hash	0000	U8G3	2y y 7	l G3 u

Whenever new data is added to the blockchain, It’s the work of the miners to verify it

All miners verify it as well as record it

- A 51% Attack is an attack on a blockchain by a group of miners who control more than 50% of the network’s mining hash rate

FROM : A

[f93jd0h2vb6lz]

TO : B

[2hv4kj6sh1bc7]

AMOUNT : Rs. 50

FROM : A

[f93jd0h2vb6lz]

TO : C

[dsa0ir20x921sk]

AMOUNT : Rs. 50

Blockchain Applications

- Secure sharing of medical data
- NFT marketplaces
- Music royalties tracking
- Cross-border payments
- Real-time IoT operating systems
- Personal identity security
- Anti-money laundering tracking system
- Supply chain and logistics monitoring
- Voting mechanism
- Advertising insights
- Original content creation
- Cryptocurrency exchange
- Real estate processing platform

Advantages of Blockchain

- Process Integrity
- Traceability
- Security
- Faster Processing

Disadvantages of Blockchain

- Power Use
- Cost
- Uncertain Regulatory Status

Conclusion of Blockchain Technology

- **The Bitcoin is the first successful implementation of blockchain.**
- **Today, the world has found applications of blockchain technology in several industries, where the trust without the involvement of a centralized authority is desired.**

The Future

While cryptocurrencies are the most well-known use of blockchain technology, their potential extends far beyond digital currencies. For example, blockchains could be used to secure every aspect of the supply chain, store property records, create a reliable digital identity system, and even store and count votes in an election. As investors continue to pour money into this technology it's only a matter of time before it fundamentally reshapes our world.

Use Cases

chain.io

QUARTZ AFRICA

TRANSPARENT

The world's first blockchain-supported elections just happened in Sierra Leone

REUTERS/OLIVIA ACLAND

Powered by blockchain.

FROM OUR OBSESSION

Africa Innovators

This is an exploration of African solutions to global problems.

By **Yomi Kazeem**
Africa reporter

March 13, 2018 • This article is more than 2 years old.

Corrected: This story was updated to clarify the extent to which blockchain was used in the election.

References

- https://youtu.be/ENrjn-lD1e8
- https://youtu.be/YJyXfjbBmc8
- https://101blockchains.com/blockchain-fundamentals-presentation/

Any Question?

Thank You!