

Blockchain



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Introduction - Need for Blockchain

Blockchain

The Internet was a breakthrough, 40 years ago. It filled the distance gap - The world is a much smaller place now.

The Trust gap remains unfilled. That's where Blockchain comes in.



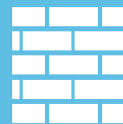
40 Years of the Internet



The Distance Gap



The Trust Gap



Ledgers - Record Keeping

Blockchain is like a Kitty Party!

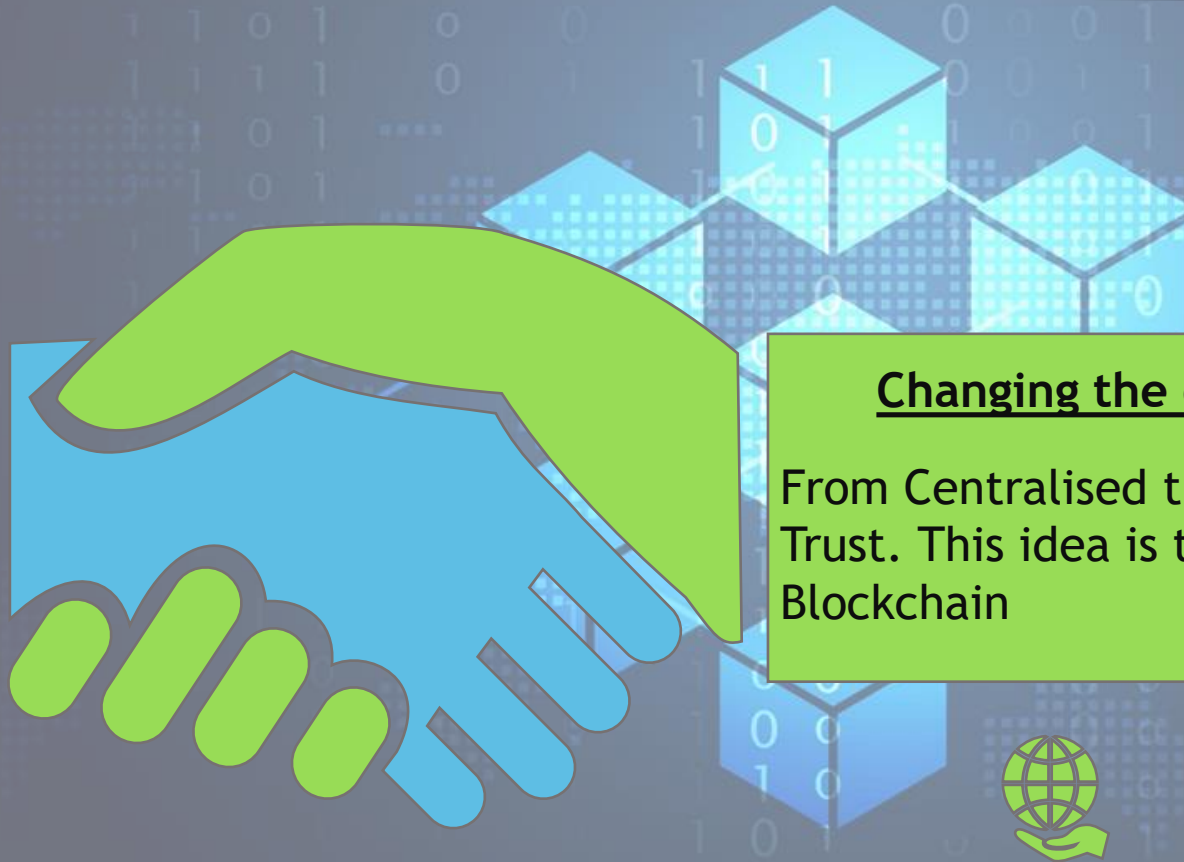
Who am I trusting?

I am trusting all the women. I am also trusting the belief, that if they want to defraud me, then most of them will have to be influenced



Applying this to Blockchain

1. The women in the party are Nodes
2. The Money contributed is cryptocurrency
3. Distributed trust around the money



Changing the concept of Trust

From Centralised trust to Distributed Trust. This idea is the heart and soul of Blockchain



Decentralisation of data in Blockchain

1. Blockchain data is stored and authenticated by a network of peers
2. Each node has full record of data stored in blockchain from its inception

Working and Merits of Blockchain

1. Strong, Un-hackable Hash Key

Identifies a record, Links other blocks to form a chain, and is Unhackable

2. Writing and Stamping of Records

Every record is written and stamped by a trusted party

3. Dependence

Every new record is Chained to the previous record. Key for every record is the combination of previous keys

6. Provenance/Trace back

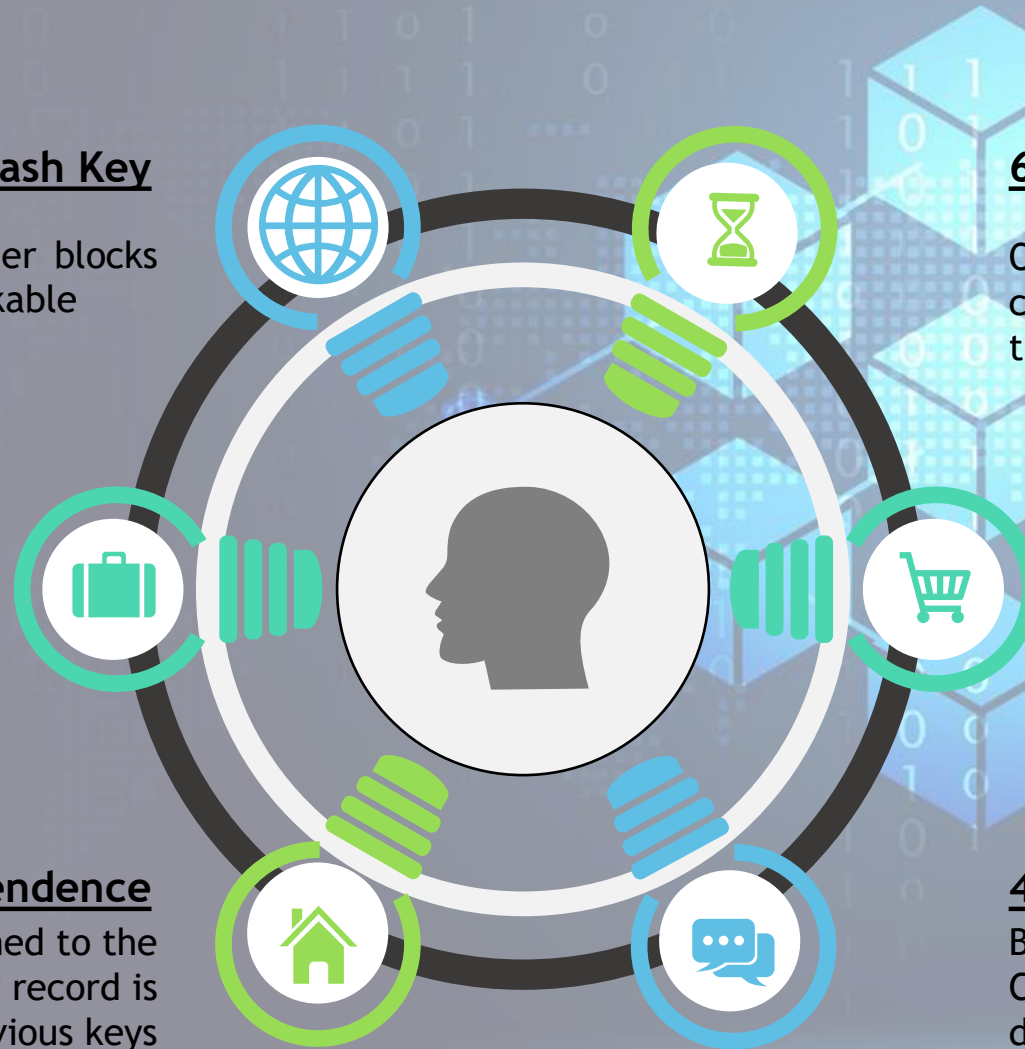
One event triggers another. You can go back block-by-block and trace the data

5. Unhackable

Protected by one of the best cryptography algorithms available. A hacker will have to change the entire chain

4. Immutable

Blocks are inter-chained. Consensus algorithm identifies data tampering. Block gets replaced



Blockchain and Cryptocurrency

The Technology behind Bitcoin?

This doesn't even start to describe Blockchain. Blockchain is much more than that



Resources to run Blockchain

Running of Blockchains involves resources - Both time and money



Blockchain

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Bitcoin

Who Operates the Chain?

The operators of Blockchain are called Cryptocurrency miners



Satoshi Nakamoto's idea

In 2008, when Nakamoto created Blockchain, he created a currency along with it - Bitcoin



How can Blockchain help India?

Cryptocurrency banned in India

Blockchain considered good;
Cryptocurrency considered evil

1. Agriculture

120 M farmers, 2nd Highest land area;
Fractional ownership, Consolidated Holding

2. Decentralised Electricity

Centralised works in Urban, not in rural;
Inter-house transfers

3. Healthcare and Education

Subsidies, Loan Management

4. Aadhar

All privacy issues shall stand mitigated

Blockchain, in India is not as much of a Technology, as it is a
Philosophy!



Questions?