Nation First.
Forever & Always.

BlockChain

The New Technology of Trust

A new technology is redefining the way we transact. If that sounds incredibly far-reaching, that's because it is.
It combines the openness of the internet and the security of cryptography.
It will change the way we interact.

What is blockchain?

It is the underlying technology that was originally developed for a digital currency - Bitcoin.

It can be used for a wide range of activities such as banking, supply chain management, ticketing etc.

Secure

Designed to store information in a manner which is virtually impossible to to add, modify or delete data without being detected by other users of that blockchain.

Decentralized

Currently, transactions are centralized, where an authority would verify the transactions.

Blockchain will replace such centralized systems with decentralized systems, where verification comes from the users in the blockchain itself.
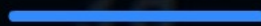
A Digital Record

At the core of this technology, is recording of transactions. These transactions could be recording movement of money, secure data, selling tickets, recording data for a Government ID (Aadhar)

How Does it Work?

A Blockchain works on 2 principles;
1) To gather and record data into blocks, &
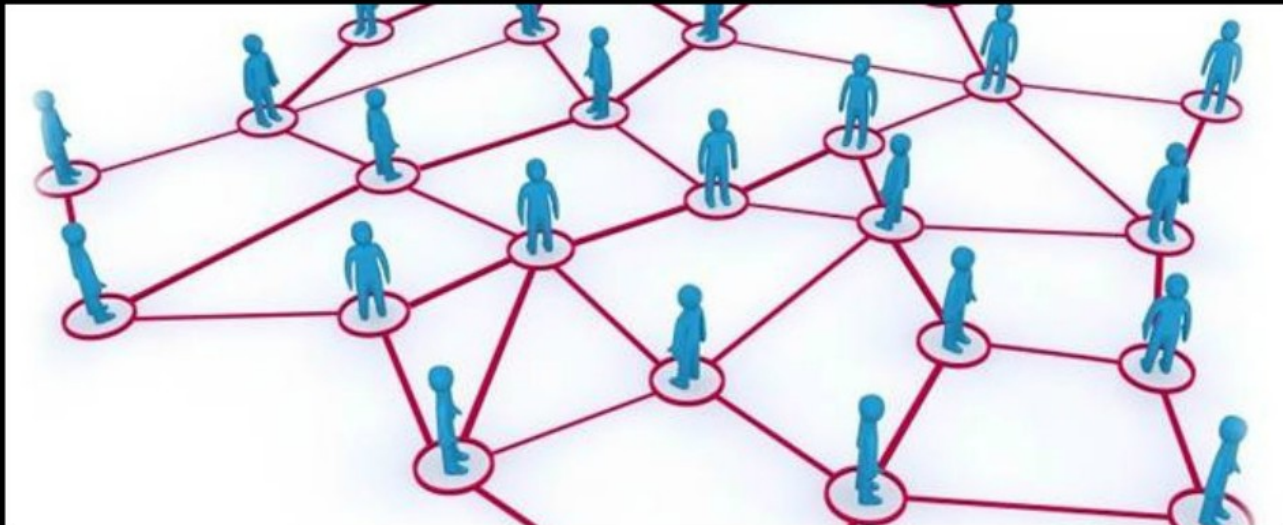2) Using cryptography to chain the blocks for security

Part 1: Recording a Transaction

Lets start with an example:
Mr. Modi sells his car to Mr. Gandhi.
This information is shared with all other users in the blockchain (network).

Part 2: Building Transactions into Blocks

In this blockchain (network), this transaction is recorded with all other transactions into a block, similar to a traditional computer database.
Every transaction is time-stamped.

When a block is complete it also gets a time stamp.

Part 3: Connecting Blocks into a Chain

The completed block is sent across the network, where it is linked to the chain.

Other users may also send in their blocks at the same time - with time stamps.

The chain is secured using a HASH function.

Hash from 1 block is added to the next block.

When the next block goes for hash a trace of the earlier block gets embedded on it.

Continuous process.

Using the Technology

This new technology has tremendous potential. It can be used in our day to day activities. Blockchains establish trust by providing simple, paperless method to establish ownership of money, information & objects.

Ticket Bookings

Blockchain can be a solution to counterfeit tickets, and purchasing from unknown sellers. Since it establishes trust at all levels.
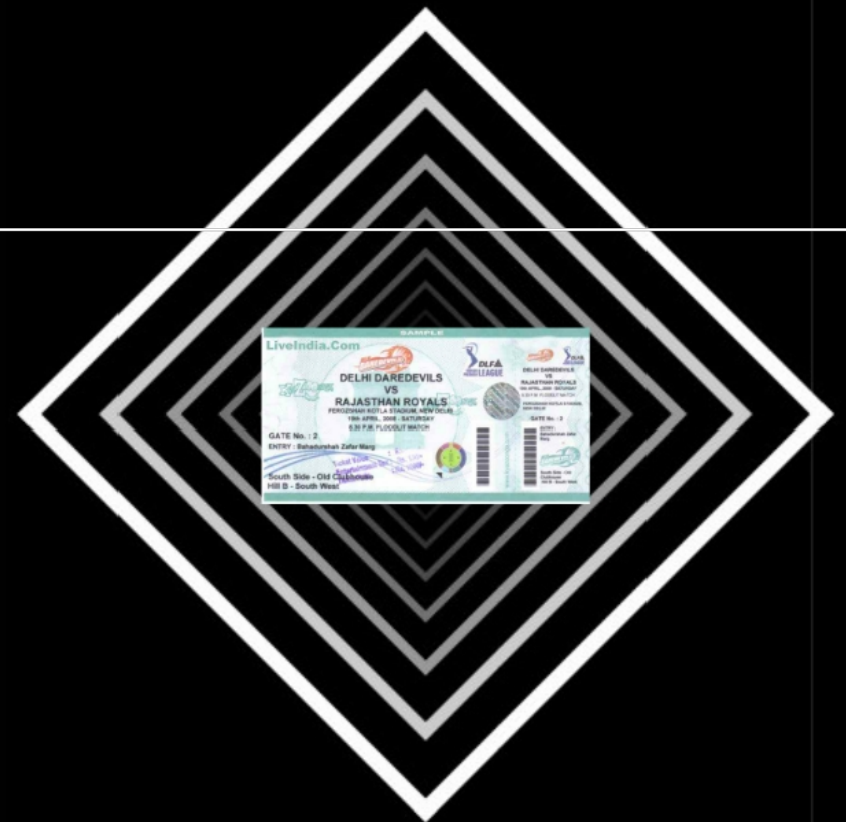
The organiser registers the event, date & serial number of the ticket to the blockchain.
This blockchain is accessible online.
When the ticket is first sold, it is assigned a digital ID.
This digital ID is used to maintain secrecy. This ID is accessible to all in the blockchain.

DIgital ID: 78JKSDFAK98920LSKDJLS

The owner is given a private key, which is a hash of the ticket serial number.

This private key can be used to unlock the ticket.

So by providing the correct key, the seller can prove that he is the rightful owner of the ticket.

If the key can unlock the ticket, it assures the buyer that it is a genuine ticket and not counterfeit.

If the owner wishes to sell this ticket, the ticket gets assigned a new serial number, and a new private key is generated for the new owner.

This new transaction is added to the block chain.

This ticket can be sold multiple times, till the event exists.

The buyer at every stage can trust the seller, if the seller can unlock the ticket with his private key.

Stock Markets

In the financial markets, trades get executed within a matter of seconds.

Delivery & settlement of payment takes upto 2 days. It gets processed through banks and depositories like NSDL / CDSL.

This consumes time and can lead to delay in processes.

Blockchain can remove these bottlenecks from the financial markets and settlement would happen in real time.

Stock Markets
Smart Contract is a solution to this

A smart contract is a computer written code, that describes a transaction step by step.
It can connect to multiple blockchains, tracking multiple assets, so that it can swap those assets as needed to execute the transaction.

Broker
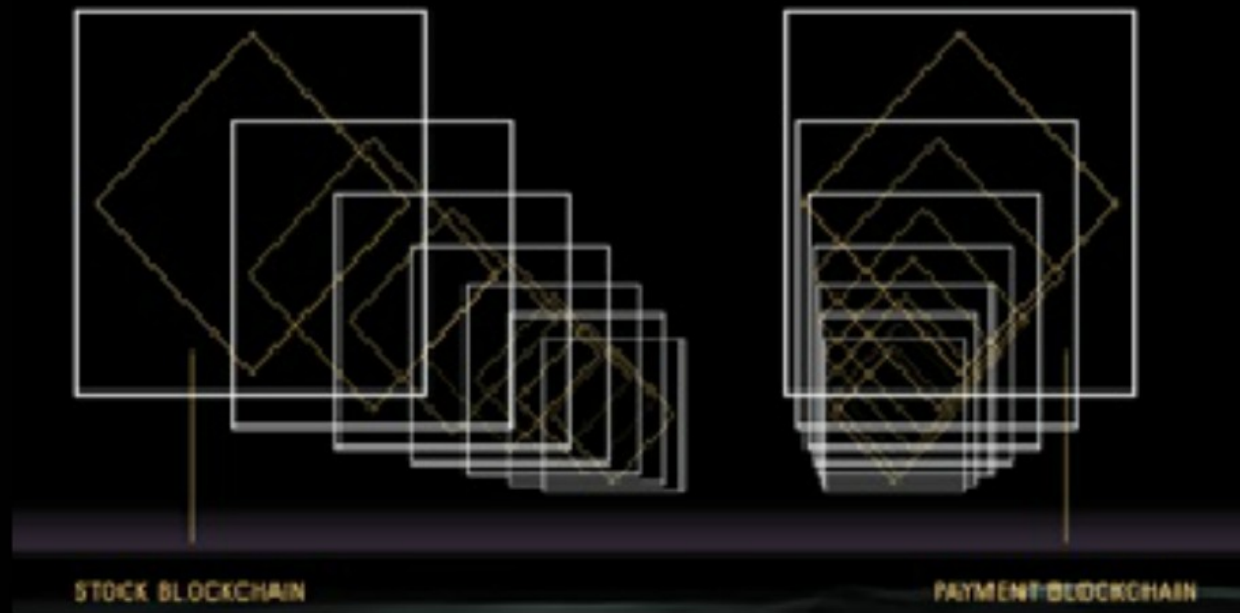
Buyer

Seller

Tata Motors Ltd

The broker buys the stock on behalf of the buyer.
The order is placed.
It includes private keys of both buyer and seller.

Execution of a smart contract

STOCK BLOCKCHAIN   PAYMENT BLOCKCHAIN

It connects to multiple blockchains.
It verifies the availability of the stock
and the payment, and then makes the
transfer between the seller and buyer.

Digital IDs / AADHAR

Aadhar or UID issued in India is a perfect example of an application of blockchain technology. However, presently, the Government is not sharing this data with the public. If integrated, it will be one of the largest blockchains in the world.

Other governments can use the Aadhar model to digitally issue identification to its citizens.
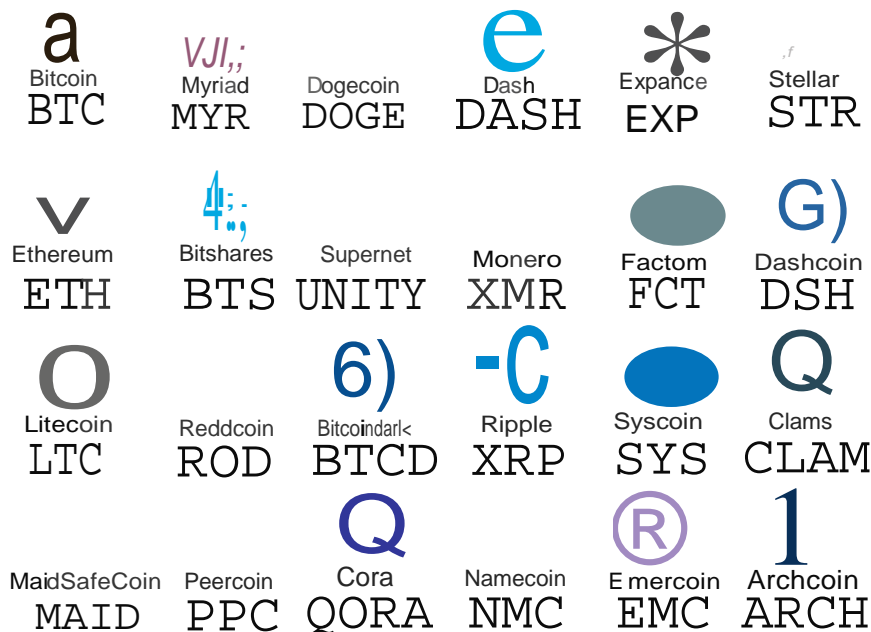
A global list of digital IDs can be maintained to track movement of people across countries or even transfer money to family members across the world.

Are we ready for 8/ockchain?

- Technological hurdles - upgradation of harware & software
- Cost factor - which companies will invest in it?
- Acceptance at global level - Will Governments accept it?
- Unemployment- A large social issue.
- Economic & political factors
- Shift to a new technology - can it compete with institutions?
- No legal recognition & standardisation - no law regulating it.
- Security concerns / hacking threats - not un-hackable
- Is it only a currency or a business?

- At present, there are more than 1600 crypto currencies in the market.
- The best known currencies are Bitcoin, Etherium, Ripple & Dash.
- The total market cap of these currencies put together is US$ 278 Bn which is more than the total forex reserves of France, Germany & Italy.

Bitcoin BTC	Myriad MYR	Dogecoin DOGE	Dash DASH	Expance EXP	Stellar STR
Ethereum ETH	Bitshares BTS	Supernet UNITY	Monero XMR	Factom FCT	Dashcoin DSH
Litecoin LTC	Reddcoin ROD	Bitcoindark BTCD	Ripple XRP	Syscoin SYS	Clams CLAM
MaidSafeCoin MAID	Peercoin PPC	Cora QORA	Namecoin NMC	E mercoin EMC	Archcoin ARCH

BlackCoin   Monacoin   Primecoin   **Nxt**

.Sibcoin   Novacoin

BLK   MONA   XPM   NXT   SIB   NVC

MaidSafeCoin   Peercoin
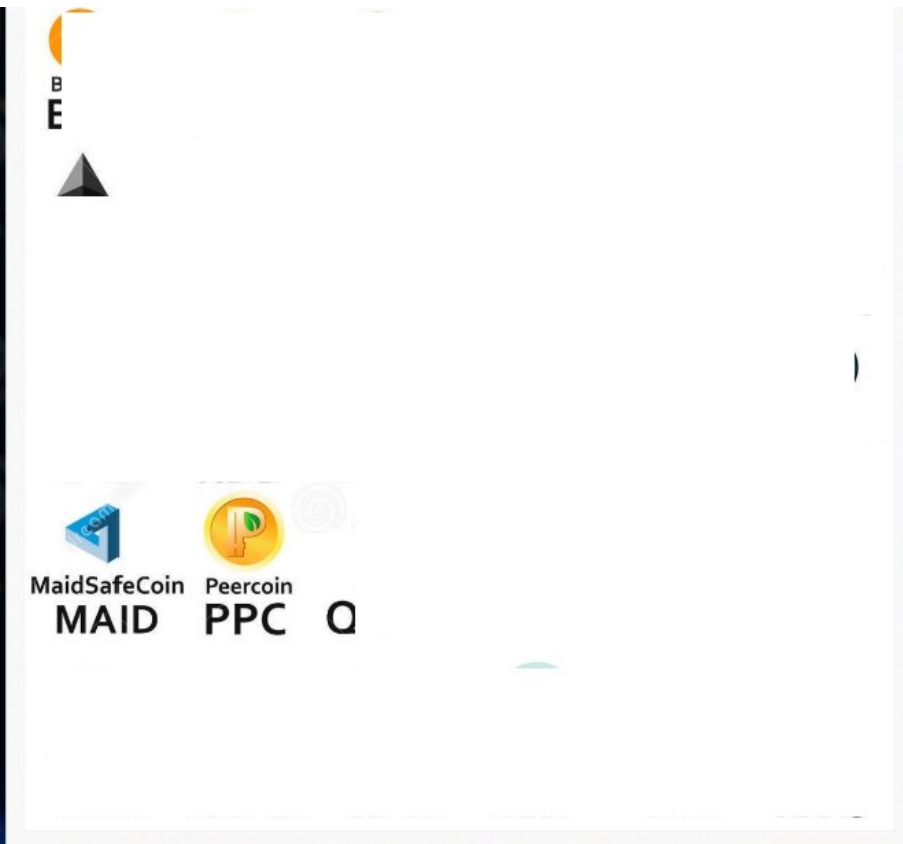MAID   PPC   Q

List of Currencies having highest volume

- Bitcoin
- Ethereum
- Bitcoin Cash
- Ripple

Mining - meaning & how to mine
Trading - security, privacy & charges
Legal staus in India - RBI
Global Outlook - China, EU & Gulf
Misuse of Technology

- KYC process takes time
- Charges are not tranparent
- Privacy not maintained
- Limited options to swap
- Payout in specific currency
- Must be routed through bank
- Limited options to load money
- Notice from IT Department
- Taxability - PGBP **/** LTCG

- What is the total mined quantity?
- Maximum quantity that can be issued?
- Who are the promoters?
- Is it a business or just a currency?
- Is it country specific?
- Movement in the recent months?
- Is it easily traded in your country?
- Is conversion required to purchase?
- On which exchanges is it traded?

Crowd Sourcing of funds.
Not parting with equity.
Future earnings/service - Drivezy
New trend- asset backed.
Legal ambiguity. Foreign Listing.
Scams in /CO listing.

Advising Clients

Explain Risks involved.
Legality of the issue in India.
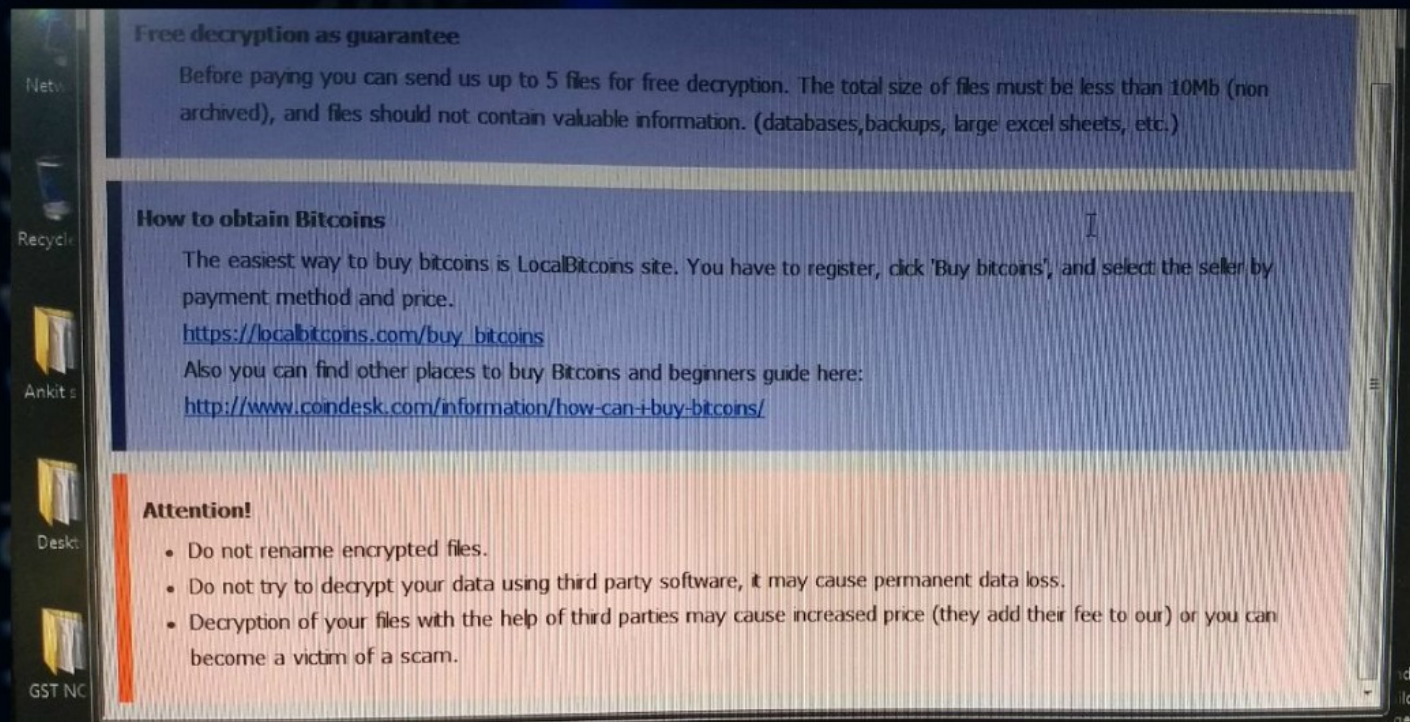Outlook in foreign countries.
Threat from hackers.
Anit-Money Laundering
FEMA

Most widely used by hackers

For hackers, it is the best form to get their payment.
Neutralize hacking threats.

Free decryption as guarantee

Before paying you can send us up to 5 files for free decryption. The total size of files must be less than 10Mb (non archived), and files should not contain valuable information. (databases,backups, large excel sheets, etc.)

How to obtain Bitcoins

The easiest way to buy bitcoins is LocalBitcoins site. You have to register, click 'Buy bitcoins', and select the seller by payment method and price.

https://localbitcoins.com/buy_bitcoins

Also you can find other places to buy Bitcoins and beginners guide here:

http://www.coindesk.com/information/how-can-i-buy-bitcoins/

Attention!

- Do not rename encrypted files.
- Do not try to decrypt your data using third party software, it may cause permanent data loss.
- Decryption of your files with the help of third parties may cause increased price (they add their fee to our) or you can become a victim of a scam.

Perception
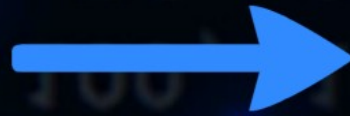
Its a transformation that has begun.
You may love it;
You may hate it;
But You just can't ignore it.

DATA IS THE NEW OIL

RELIANCE UNDERSTOOD IT. **OTHERS DIDN'T.**

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CA. VIVEK SHAH