Bitcoin

Currency on the Internet

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Who am I?

- Cyber Security Researcher
- Masters Thesis on Bitcoin and Cyber Crime
- Runs Informant Networks from Belgaum
- Tech guy
What is talk is not about?

• Not licensed to give financial advice; There is no financial advice contained herein

• Not a lawyer; There is no legal or tax advice herein

• Nothing here is designed to help you avoid paying taxes

• I am not a Management Guru. Know little about Finance, etc.. etc..

• I do not guarantee/assure return on investments in Bitcoin
Please interrupt me at any point in time

There’s no such thing as a stupid question
Agenda

• What is a digital/crypto currency

• What is Bitcoin?

• How are bitcoins produced?

• What forms value in Bitcoin?

• How are bitcoins transacted?

• The question of transaction reversibility
What is Money?

- Money is a record
- When X sends $2 to Y.
  - Remove $2 from X’s account
  - Add $2 to Y’s account
- Value is for currency/commodity is derived from
  - Consensus
  - Rarity
1 BTC ~ 15000 INR
What are cryptocurrencies

• Value stores in the digital realm

• Forms a unit of exchange. i.e. Dollar, Rupee, Yen

• No tangible representation of currency

• Transactions are backed by strong mathematical foundations *can rant privately*

• Borrow’s the idea that “Money is a record”

• Canada has its own Government backed Cryptocurrency - MintChip
“All currencies involve some measure of consensual hallucination, but Bitcoin, a virtual monetary system, involves more than most”

–The Economist
What is Bitcoin

• ‘Bitcoin’ means the system, ‘bitcoin’ is the actual unit

• A cryptocurrency

• Started in 2009 by Satoshi Nakamoto

• Decentralised - No issuing/monitoring/regulatory authority

• Pseudo-anonymous
So who controls Bitcoin?

- Nobody!
- The Bitcoin network is all the individuals that use the Bitcoin system to transfer bitcoin
- Currency exchange is powered by Mathematical Foundations
Where do Bitcoins come from?

• Solve a Puzzle, Get a prize - Grandparents Principle

• How are bitcoin’s introduced

  • Solve a complex math problem. Reward is 25 new bitcoins (3.76 Lakh INR)

• Money exchange (1 BTC - 15000 INR)

• Fees for confirming transactions. Higher the fees, faster transaction gets processed
What forms value in BTC?

- “Bitcoins are tulips”

- It is valuable because it works, and everyone agrees it works, so we use it.

- A thing has value precisely because people agree that it does.

- Supply and Demand

- Is it only good for Cyber Crime?
How to use Bitcoin

• Create a Wallet

• Wallet has an ID - 1HLb7Gq6vx1....

• Tell people to send Bitcoin to you on that ID

• Bitcoin network confirms your transaction
Crazy Maths 101

- Public Key Cryptography (Stay with me)
- One Lock, Two keys. One can lock. Other can open, And vice-versa
- Use One key to accept money, Another to send
- Enables Trust in untrusted environments. i.e. Bitcoin
Jean-Paul Rodrigue, Hofstra University
Phases of a bubble
The Bitcoin Price Chart
Many people see the obvious similarity
Quirks of Bitcoin

- Transactions cannot be reversed
  - Escrow services
  - No Chargebacks
- Establishing Trust takes longer
- Payment is not processed instantly
  - Payment Services levy margins and make it possible
The Future

• Bitcoin is the leading one currently. Others include, Litecoin, Peercoin, Dodgecoin, Catcoin, etc

• 170 in total

• Is Bitcoin the future, Maybe not! But Cryptocurrencies surely are

• Unocoin - Exchange for Bitcoin in India
Questions?

Send Queries to hello@hitesh.xyz

Slides to this talk are on hitesh.xyz/bitcoin.pdf