



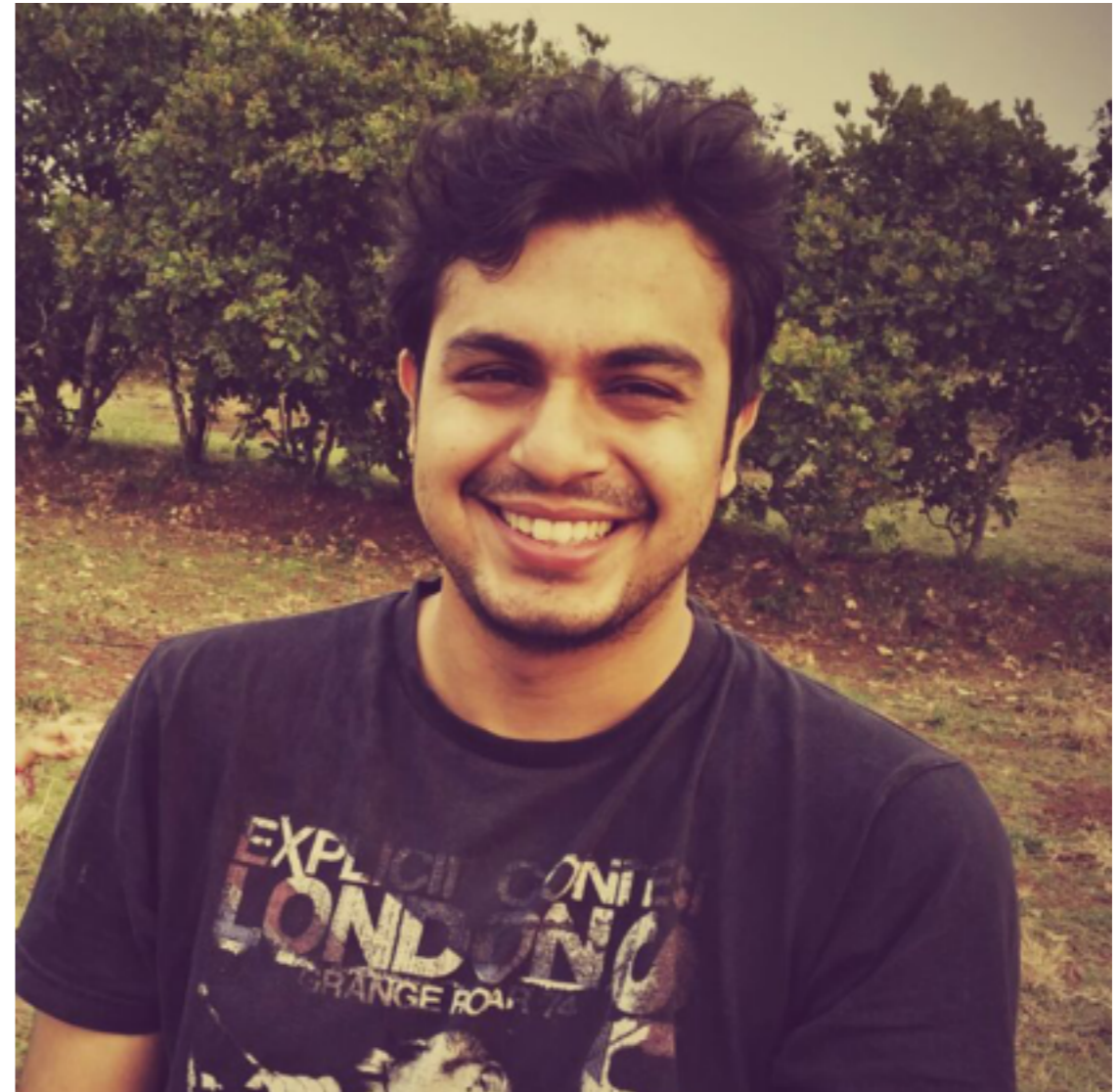
Bitcoin

Currency on the Internet

Hitesh Dharamdasani
Informant Networks

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?

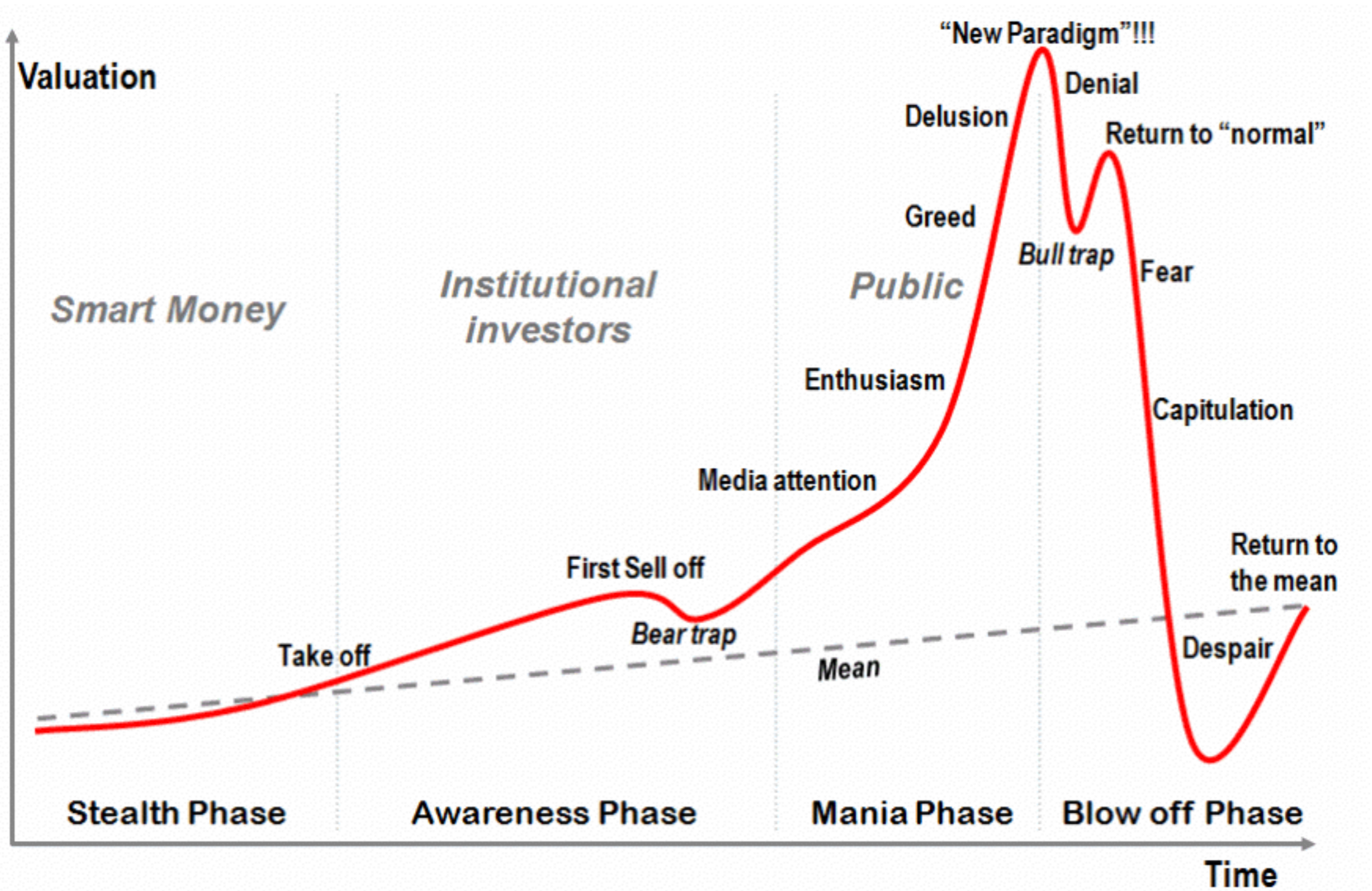
- “Bitcoins are tulips”
- It is valuable because it works, and everyone agrees it works, so we use it.
- A thing has value precisely because people agree that it does.
- Supply and Demand
- Is it only good for Cyber Crime?

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

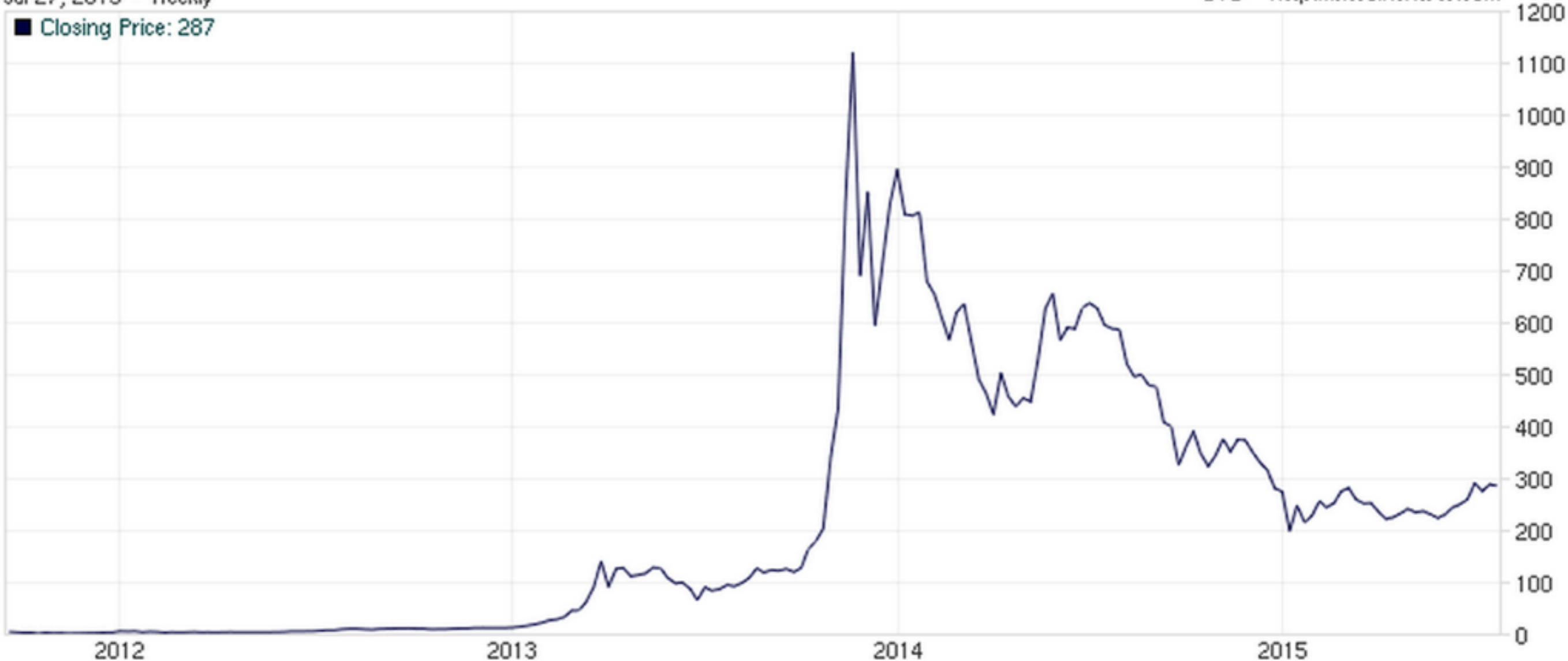
BitStamp (USD)

Jul 27, 2015 - Weekly

bitstampUSD

UTC - <http://bitcoincharts.com>

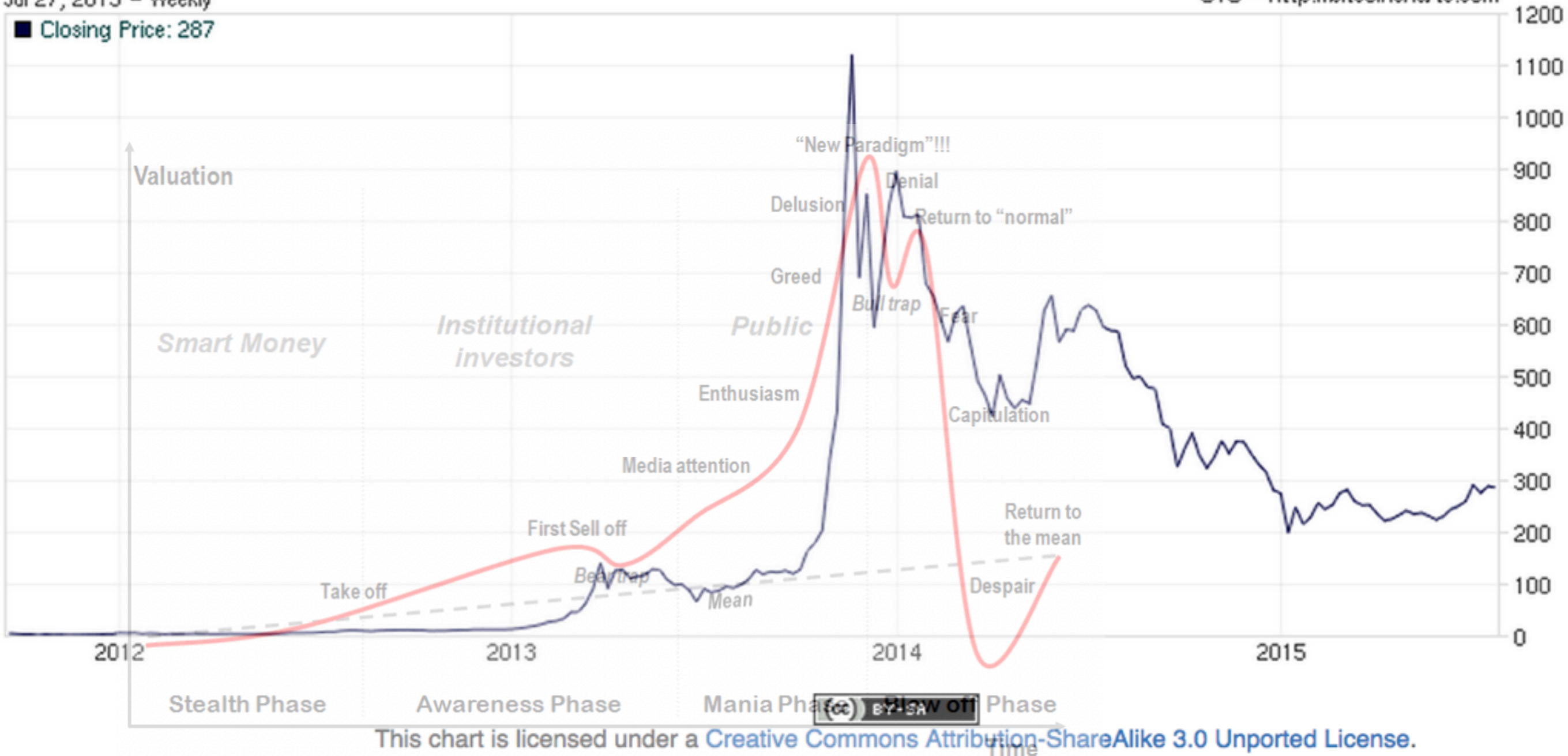
■ Closing Price: 287



(CC) BY-SA

This chart is licensed under a [Creative Commons Attribution-ShareAlike 3.0 Unported License](https://creativecommons.org/licenses/by-sa/3.0/).

The Bitcoin Price Chart



Overlay

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