

Bitcoin in the News

How it Functions... Where it Goes

September 8, 2017

Chicago, IL

Bitcoin is

CONFUSING

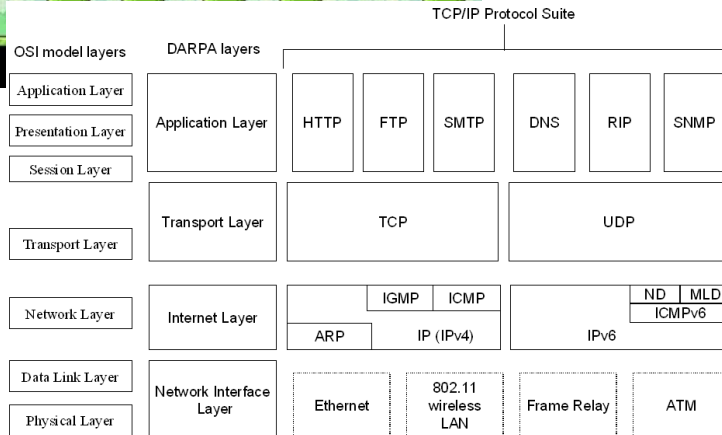
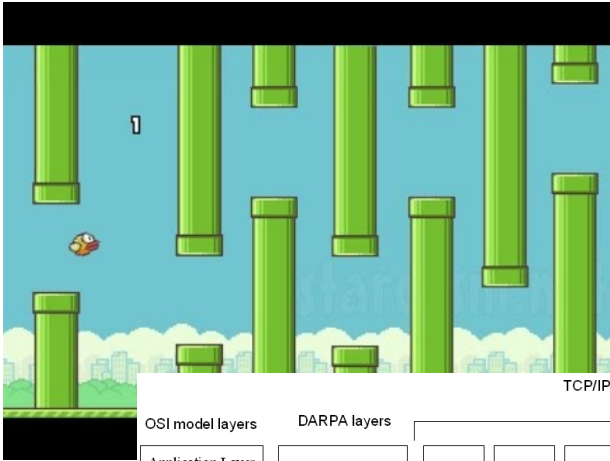
Involves a lot of things

- COMPUTER SCIENCE
- GAME THEORY
- ECONOMICS
- POLITICS
- etc....

What we will try and accomplish

- Explain the basic contours and define some buzzwords you may have heard
- Explain emerging issues in the digital currency industry and their context within 'bitcoin'
- Describe the current state of the industry and its players

How the internet works



It is not a “series of tubes” – but it is a suite of protocols.

Bitcoin

- Released as open source software in 2009
- Powered by users to clear and settle transactions (decentralized)
- Internet protocol's focus on information, data
- Represents a shift to an *internet of ownership*

Bitcoin: A Peer-to-Peer Electronic Cash System

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Abstract. A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution. Digital signatures provide part of the solution, but the main benefits are lost if a trusted third party is still required to prevent double-spending. We propose a solution to the double-spending problem using a peer-to-peer network.

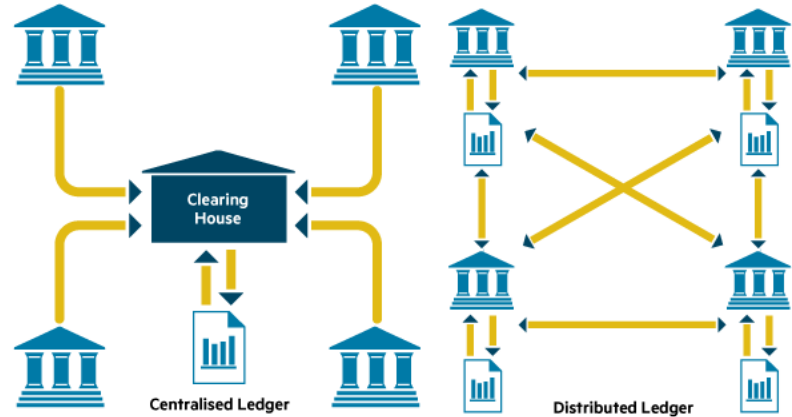
Blockchain

Underlying architecture of bitcoin

“...System with the benefits of a centralized, shared infrastructure but without the centralized point of control: if the data and business logic is shared and replicated, no one firm can assert control, or so the argument goes.”

Embedding distributed ledger technology

A distributed ledger is a network that records ownership through a shared registry



In contrast to today's networks, distributed ledgers eliminate the need for central authorities to certify ownership and clear transactions. They can be open, verifying anonymous actors in the network, or they can be closed and require actors in the network to be already identified. The best known existing use for the distributed ledger is the cryptocurrency Bitcoin

FT graphic. Source: Santander InnoVentures, Oliver Wyman & Anthemis Partners

The blockchain revolution is so fascinating because it could actually be **two completely different revolutions**... both profound in their implications:

- Censorship-resistant digital cash providing a new platform for open, permissionless innovation driven from the margins;
 - And industry-level systems of record driving efficiencies for incumbents.
- Richard Gendal Brown, Chief Technology Officer at R3 CEV, for *Coin Center*
- <http://coincenter.org/entry/is-blockchain-different-than-bitcoin>

What is it good for?

- Payments
- Recordkeeping
- FUTURE USES



What does the “industry” look like?

- Developer teams
- Wallet providers (hardware, software, web)
- Brokerages and exchanges
- Other service providers

Emerging Issues

- DarkNet Markets
- Anti-Money Laundering (AML)
- Consumer Protection
- Taxes

What is ethereum?

- Similar to bitcoin in that its a network, a currency, and a peer to peer computing system
- More programmable.
- More coherent, coordinated governance and developer community

Broader Issues

- Initial Coin Offerings (ICOs)
- Distributed Ledger Technologies for enterprises
- Central bank issued digital currencies

Questions?