Signaling in Networks: From Bitcoin to Biology

By Jason Bedford

See also:
https://www.khanacademy.org/economics-finance-domain/core-finance/money-and-banking/bitcoin/v/bitcoin-what-is-it

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Signaling in Networks: from Bitcoin to Biology

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* I want to provide an introduction to the mechanics of Bitcoin transactions w/c I think that it's an extremely interesting example of Signaling in networks.

The fundamental problem that decentralized digital cryptocurrency currencies face is: how do we Transfer "currency" between two agents.

option #1 The old way

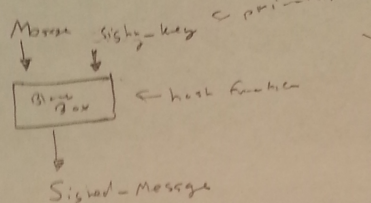
One book controlled by one person (exactly like a bank)

option #2 completely decentralized

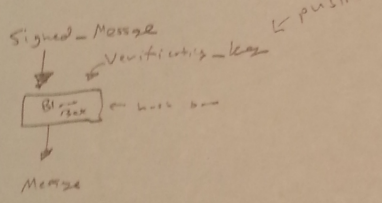
Bob → {steve, john} so ∃ a problem.

This is the double payer problem

So now we're ready to send that message.



signing process
(on Alices side)



← This is effectivly your own
with bitcoin wallet.

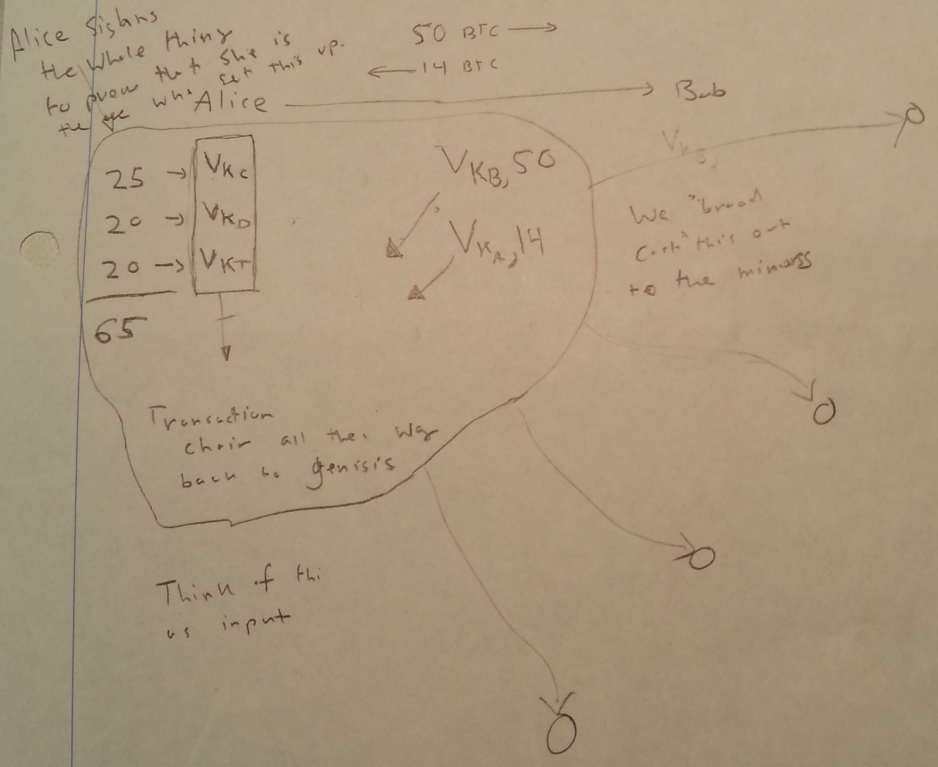
Verification process
(on Bobs side)

This is really fairly fool proof as long as
we don't have collision in the hash table
↳ go into this!

ok, time to stop beating around the bush.
The 2x payer problem.

What is Bitcoin. it is something which describes it's-self & it's current path identified

Bitcoins are legers (Book of these digital signatures)



We need a decentralized time Stamp!

The transaction block chain.

ok so for a time window we have a number of transaction ways.

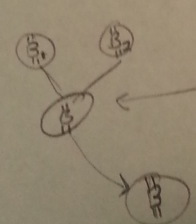
it's ineffecent

The goal of the Miners is to each receive all Bit buys and "in cooperate them" that is to check for Dx spenders.

This is done by forming a Transaction block it's just a list of uniq Transactions in the legers

Therefore a transaction block is a set of legers.

The goal is to get big.



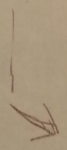
[miners tell ppl ok if ok and not ok if not ok.]

. . . . . Bit Coin genisis

The important aspect is that

small → larg ← adding a fee will help make this happen fast

never add small to small

Then when it get to a certain level it can be added to the genisis block chain.

The genis chain is publically viewable.