Ethereum, Smart-contracts, Swarm, Web 3.0

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Outline

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- Anyone can access it
- It is tamper proof
- No single entity can stop it, censor it, control it.

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So-called "smart contracts" are programs running on the ethereum computer.

So why are they called smart contracts?

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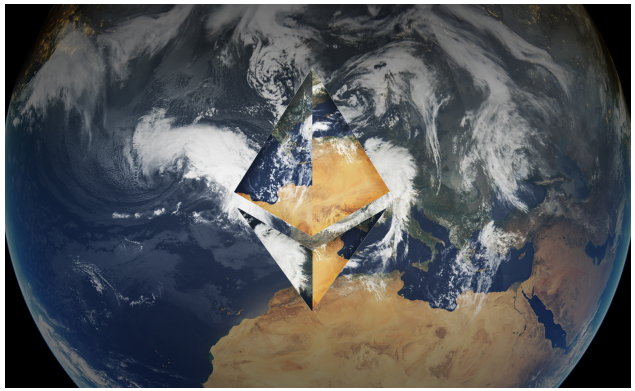

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Let us pretend that the city of Amsterdam decides to move its land-registry database from the basement of city hall to the ethereum world computer.
I put money (Ether) in a smart contract that says the following: If the ownership of this apartment is transferred to me (i.e. the land registry updates to show it as mine), then **transfer all the money to you** (the previous owner).

So?

What's so special about that?

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There is no need for a notary to hold on to the money (escrow) – the contract itself can act as the trusted third pary.

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- Financial derivatives
- "Fair" pyramid and Ponzi schemes

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Intrade and Augur

The intrade / Augur story
the story of intrade (centralisation problem) the story of augur (decentralised oracle)

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...and so on. Can be arbitrarily complex. It's up to you.

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Copyright the right way?

can the act of listening to music be paired with automatic payments to the correct people?
smart contract payment splits? yes. music on blockchain? no.

We need to look at how this all works under the hood.

Outline

Blockchain

Blockchain and POW

Ethereum is Turing complete

turing completeness – generic blockchain tech.

Swarm

swarm as a storage layer and as a CDN
data storage and distribution is (has to be) off-chain, but with close integration into blockchain we can use smart contracts to regulate what happens (eg SWINDLE litigation engine)

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Web3

The Web3 Vision