Blockvis
https://blockvis.com

parsiq.io
https://parsiq.io

Blockchain Core Concepts for auditors

IAI 2019
Internal Auditor Institute

Anatoly Ressin
BLOCKCHAIN ARCHITECT AT PARSIQ
CEO AT BLOCKVIS

Latvian Blockchain Association
blockchain.org.lv

anatoly@blockvis.com

Blockvis

Auditor's view:

Cryptography.

PROVABLY FAIR

- Merkle Proofs
- Zero-Knowledge Proofs

PROTECTED

- Asymetric cryptography (PKI)

Future of Audit and Compliance

Security

Busines Processes

Finances

The NEW GENERATION OF AUDITORS SHOULD BE CAPABLE TO AUDIT DIGITALIZED DIMENSIONS OF THE BUSINESS.

Smart Contracts
DAO/DAPPS

- Business rules in Blockchain

LET'S MAKE IT TRANSPARENT

Notary Pass

civic

SUM & SUBSTANCE ...

BLACK CHAIN

KYC BLACK BOX KYC

TRADITIONAL AUDITORS PREFER TO BLACKBOX BLOCKCHAIN PART OF THE PROJECT AND CHECK ONLY INPUT/OUTPUT GATES
it is A WRONG APPROACH!

Crypto-Currencies

- Transaction Traceability.
- Graph audit
- Deals and TAXES on BLOCKCHAIN

SOME TIME AGO THIS PICTURE WAS PRESENTED BY Blockvis TO A BIG AUDITOR ENTITY...

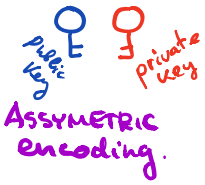
parsiq.io

Blockvis

Scientific view:

Blockchain

Cryptography

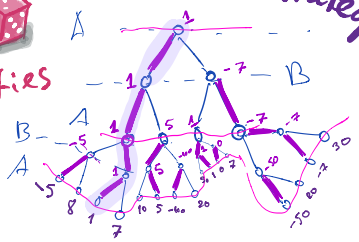


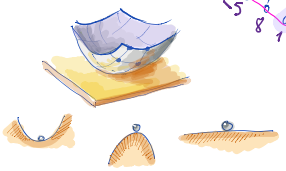
Assymetric encoding.

Game Theory

probabilities

strategies





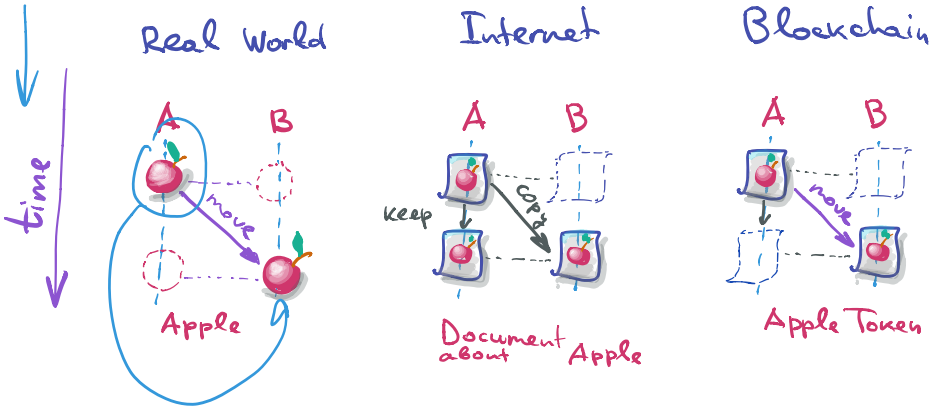
Equilibrium types.

parsiq.io

Blockvis

Killer feature

Ability to Transfer ORIGINALS of DIGITAL things.

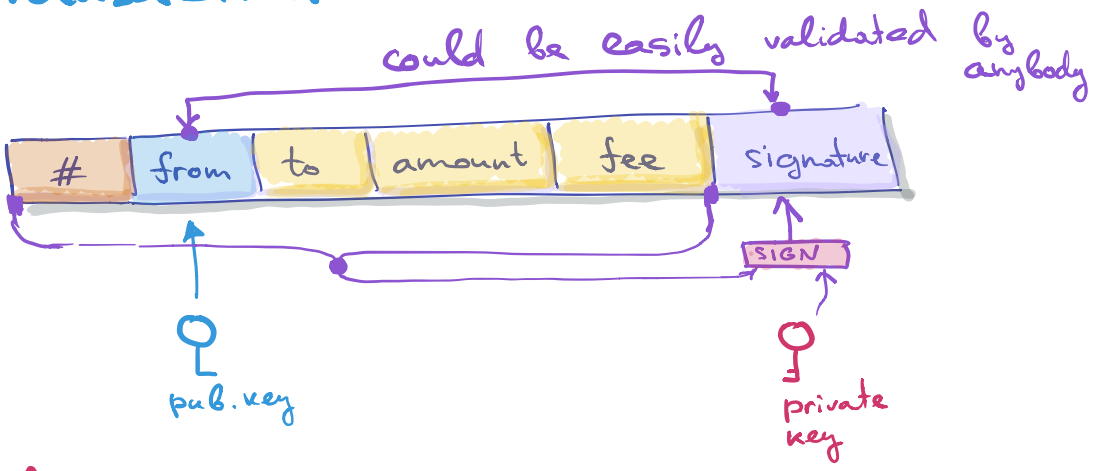


parsiq.io

Blockvis

Core Concepts

Transaction



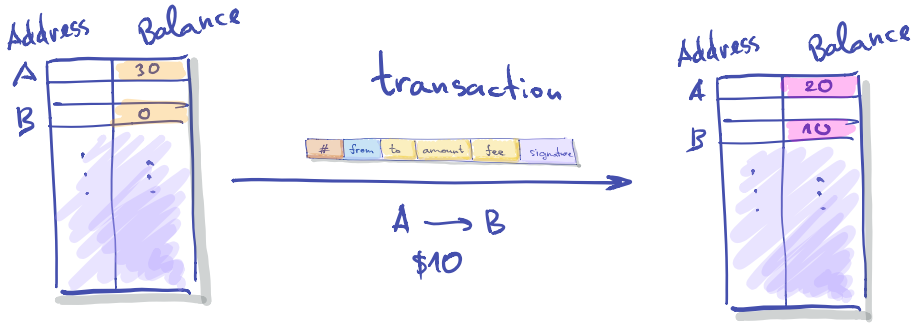
problem: user can make two transactions that spend the same money.

parsiq.io

Blockvis

Core Concepts

State Change

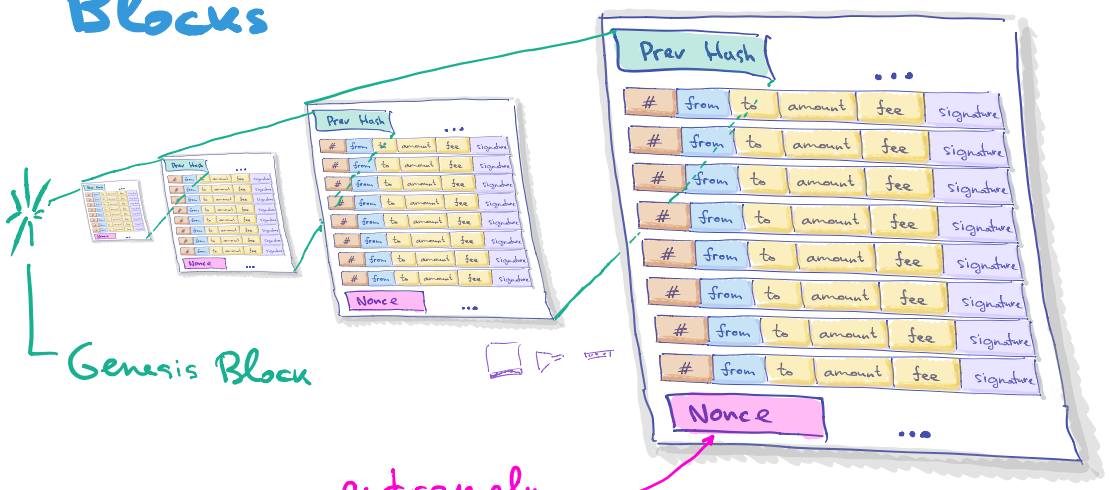


parsiq.io

Blockvis

Core Concepts

Blocks



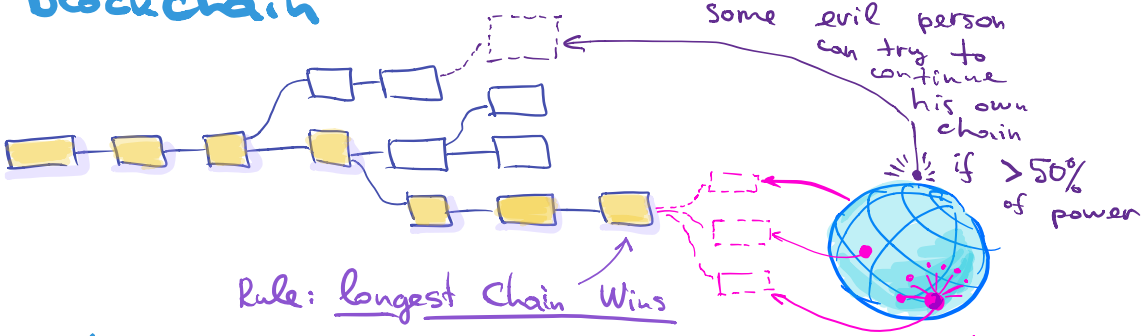
extremely hard to find, yet EASY TO VALIDATE !

parsiq.io

Blockvis

Core Concepts

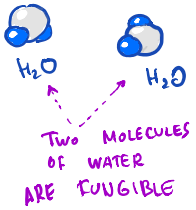
Blockchain



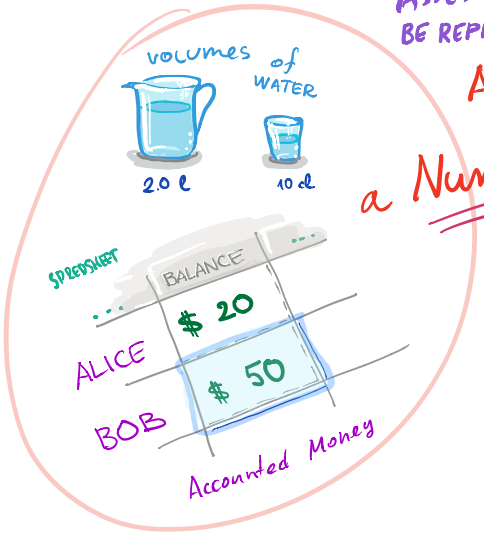
a tree of alternative financial histories !

parsiq.io

Fungibility



Amount of the fungible asset could be represented as a Number!



What is at risk?

AML / CTF

countermeasures become ineffective

Naive prohibitative approach

Ban all the crypto by default

ok, yet it's a Progress...

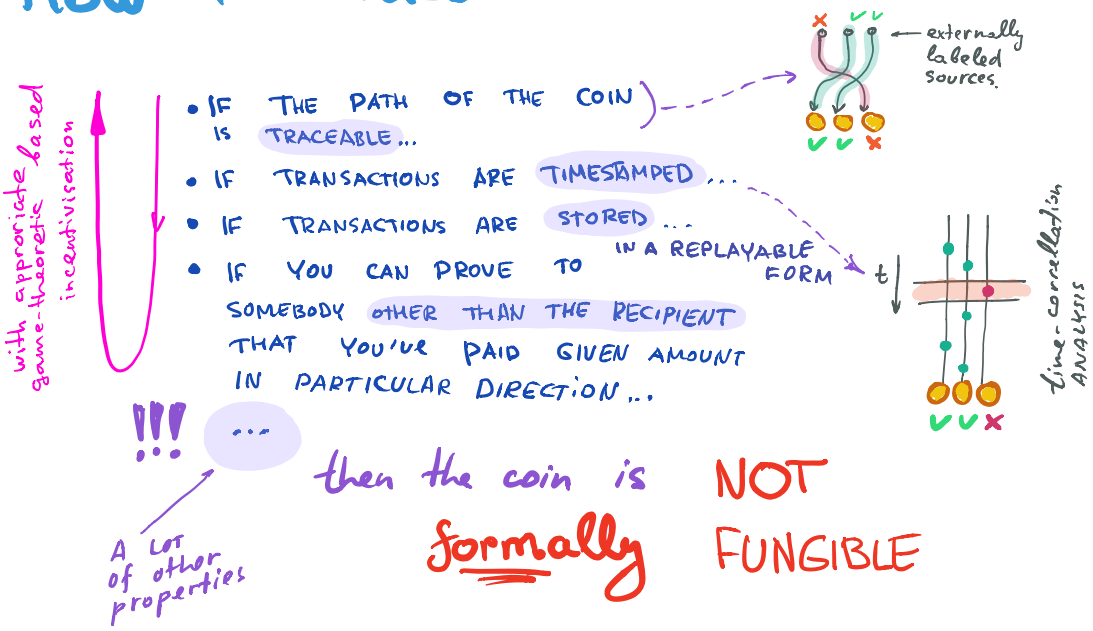
Naive approache 2.

Asking either weakening the cryptography used or asking embedding the backdoors

Not ok ruins **Privacy** between peers

Hackers are welcome!

How to trace



SMARTER SOLUTIONS

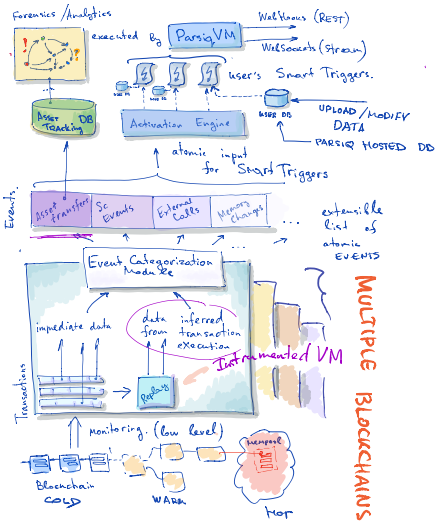
parsiq.io , chainalisys, ...

- Use any not-so-fungible crypto-currency imperfections, and status quo implementations

- To mitigate AML/CTF risks related to the accepted crypto
- To provide necessary information for investigations an fraud prevention

Blockvis

parsiq.io [under development]

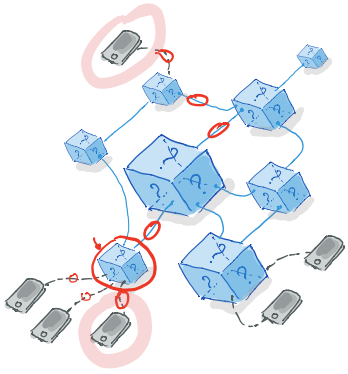


- system for an in-depth analysis of multiple blockchains
  - EVEN AT THE LEVEL OF SUB-TRANSACTION ASSET MOVEMENTS
- Realtime notification engine, that allows continuous Busines Logic Audit via SMART TRIGGERS

parsiq.io

Blockvis

And What About Lightning Network?



SHORT ANSWER:

2-rd LAYER IT'S A PAIN for AUDITORS

HOWEVER

WE SEE IT'S FUTURE PROBLEMS, AND WE PROBABLY SEE HOW TO ALIGN THE NEEDS, FEARS AND HOPES OF THE SOCIETY

parsiq.io

Blockvis

Thank You! Q/A?

[probably at NETWORKING]

Anatoly Ressin
BLOCKCHAIN ARCHITECT AT PARSIQ
CEO AT BLOCKVIS

parsiq.io

https://parsiq.io

POWERED BY blockvis.com

Latvian Blockchain Association
blockchain.org.lv

anatoly@blockvis.com