



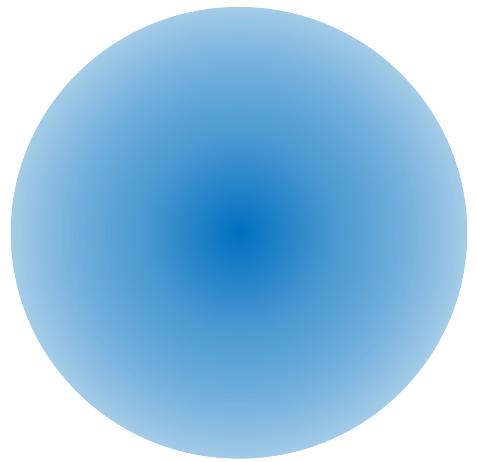


Introduction and history

How actually bitcoin works



Cryptography PRIMER





What is Bitcoin?



Bitcoin is a decentralized digital currency that works without the need for a bank or government

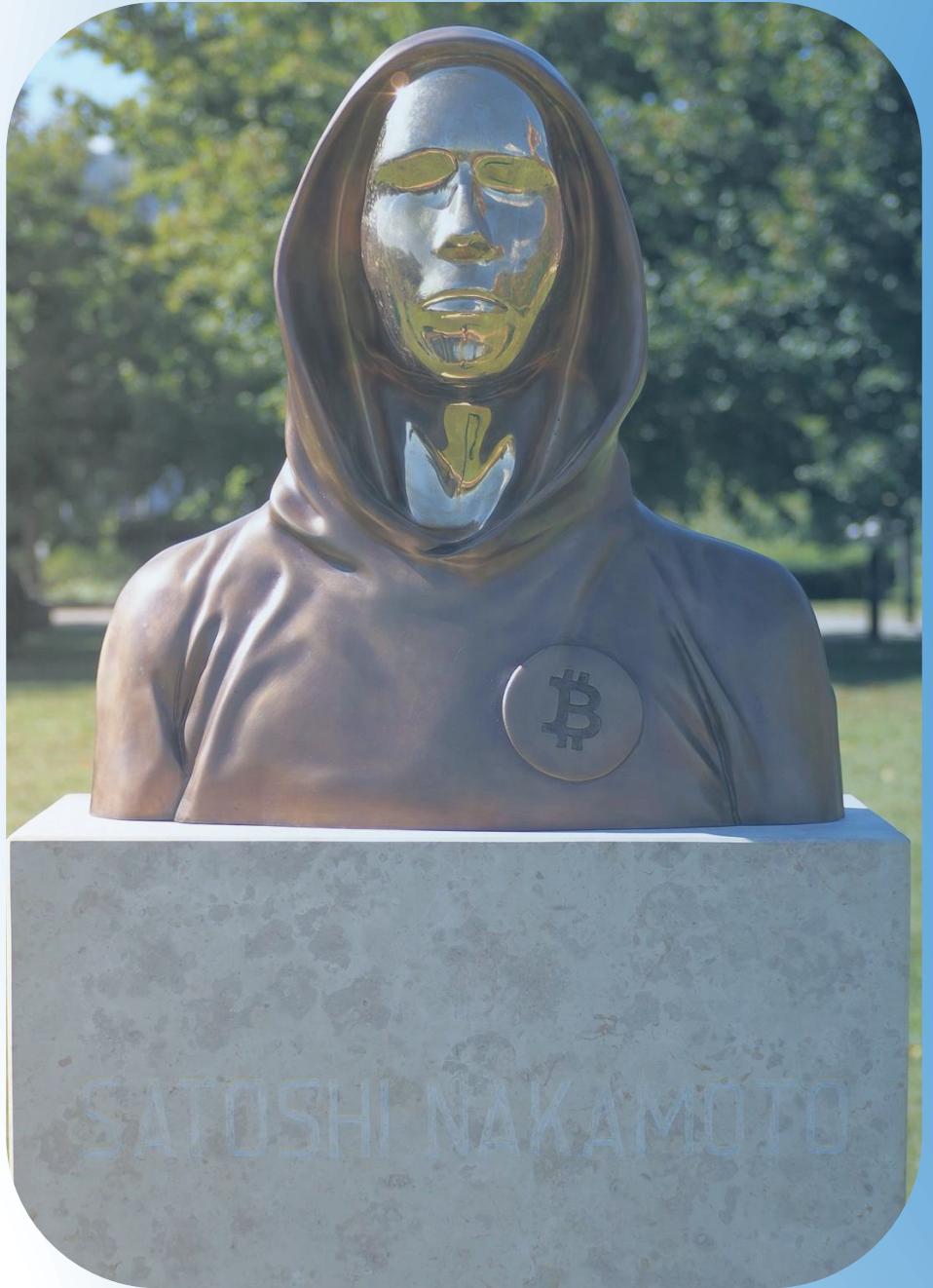


Four major
features

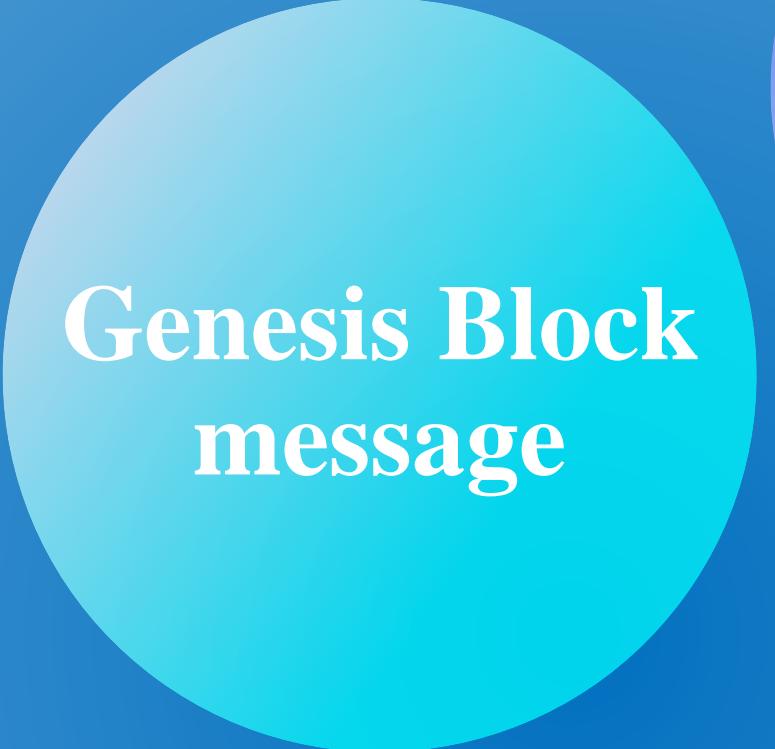
- 
- 
- Digital
 - Decentralized
 - Limited supply
 - permissionless



Trust?



The Birth of Bitcoin



Genesis Block
message

THE TIMES



Max 5C, min -5C

Saturday January 3 2009 timesonline.co.uk No 69523

3GM

£1.50

Chancellor on brink of second bailout for banks

Billions may be needed as lending squeeze tightens

Francis Elliott Deputy Political Editor
Gary Duncan Economics Editor

Alistair Darling has been forced to consider a second bailout for banks as the lending drought worsens.

The Chancellor will decide within weeks whether to pump billions more into the economy as evidence mounts that the £37billion part-nationalisation last year has failed to keep credit flowing. Options include cash injections, offering banks cheaper state guarantees to raise money privately or buying up "toxic assets", The Times has learnt.

The Bank of England revealed yester-

day that, despite intense pressure, the banks curbed lending in the final quarter of last year and plan even tighter restrictions in the coming months. Its findings will alarm the Treasury.

The Bank is expected to take yet more aggressive action this week by cutting the base rate from its current level of 2 per cent. Doing so would reduce the cost of borrowing but have little effect on the availability of loans.

Whitehall sources said that ministers planned to "keep the banks on the boil" but accepted that they need more help to restore lending levels. Formally, the Treasury plans to focus

on state-backed guarantees to encourage private finance, but a number of interventions are on the table, including further injections of taxpayers' cash.

Under one option, a "bad bank"

would be created to dispose of bad debts. The Treasury would take bad loans off the balance sheets of banks, perhaps swapping them for government bonds. The toxic assets, blamed for poisoning the financial system, would be parked in a state vehicle or "bad bank" that would manage them and attempt to dispose of them while "detoxifying" the mainstream banking system.

The idea would mirror the initial proposal by Henry Paulson, the US Treasury Secretary, to underpin the American banking system by buyin
Continued on page 6, col 1
Leading article, page 2

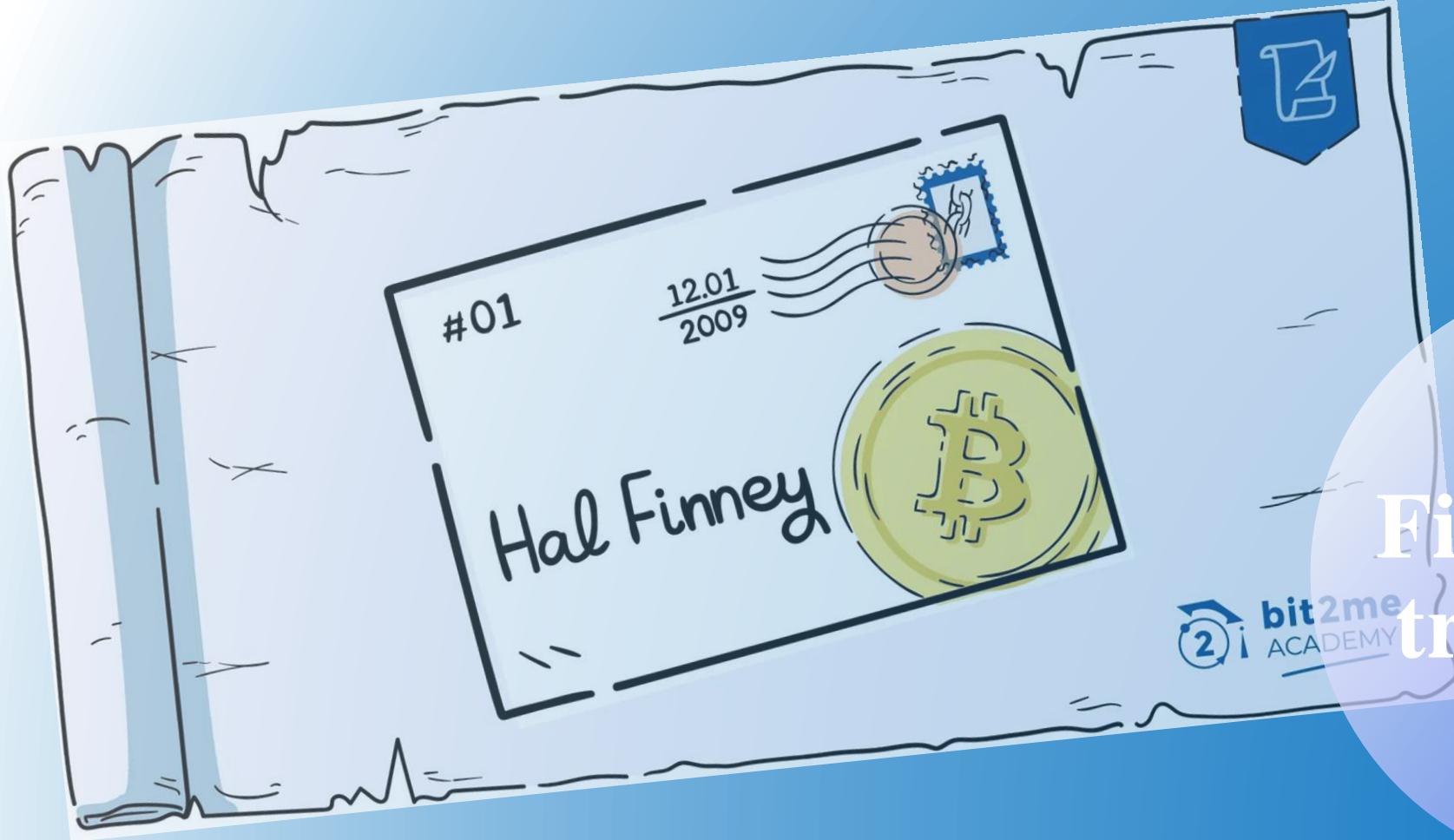
99p

Pub chain cuts the price of a pint from £1.69 to 1989 levels

Business, page 47



The Times 03/Jan/2009
Chancellor on brink of second bailout for banks



First bitcoin
transaction

The most expensive pizza in history



laszlo (OP)
Full Member

Activity: 199
Merit: 2489

Pizza for bitcoins?
May 18, 2010, 12:35:20 AM

I'll pay 10,000 bitcoins for a couple of pizzas.. like maybe 2 large ones so I have some left over for the next day. I like having left over pizza to nibble on later. You can make the pizza yourself and bring it to my house or order it for me from a delivery place, but what I'm aiming for is getting food delivered in exchange for bitcoins where I don't have to order or prepare it myself, kind of like ordering a 'breakfast platter' at a hotel or something, they just bring you something to eat and you're happy!

I like things like onions, peppers, sausage, mushrooms, tomatoes, pepperoni, etc.. just standard stuff no weird fish topping or anything like that. I also like regular cheese pizzas which may be cheaper to prepare or otherwise acquire.

If you're interested please let me know and we can work out a deal.

Thanks,
Laszlo

laszlo (OP)
Full Member

Activity: 199
Merit: 2489

Re: Pizza for bitcoins?
May 22, 2010, 07:17:26 PM

I just want to report that I successfully traded 10,000 bitcoins for pizza.

Pictures: <http://heliacal.net/~solar/bitcoin/pizza/>

Thanks jercos!

The most expensive pizza in history



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Thanks jercos!



Shop by Category

- Drugs 8,670
 - Cannabis 2,066
 - Dissociatives 165
 - Ecstasy 660
 - Opioids 591
 - Other 455
 - Precursors 50
 - Prescription 2,146
 - Psychedelics 981
 - Stimulants 1,102
- Apparel 264
- Art 127
- Biotic materials 1
- Books 861
- Collectibles 5
- Computer equipment 32
- Custom Orders 68

messages 0 | orders 0 | account \$0.00

Search

Go



1g MDMA 82%+ High Quality -Made in Germany-\$1.30



50 gr. Crystal MDMA Rocks
\$23.33

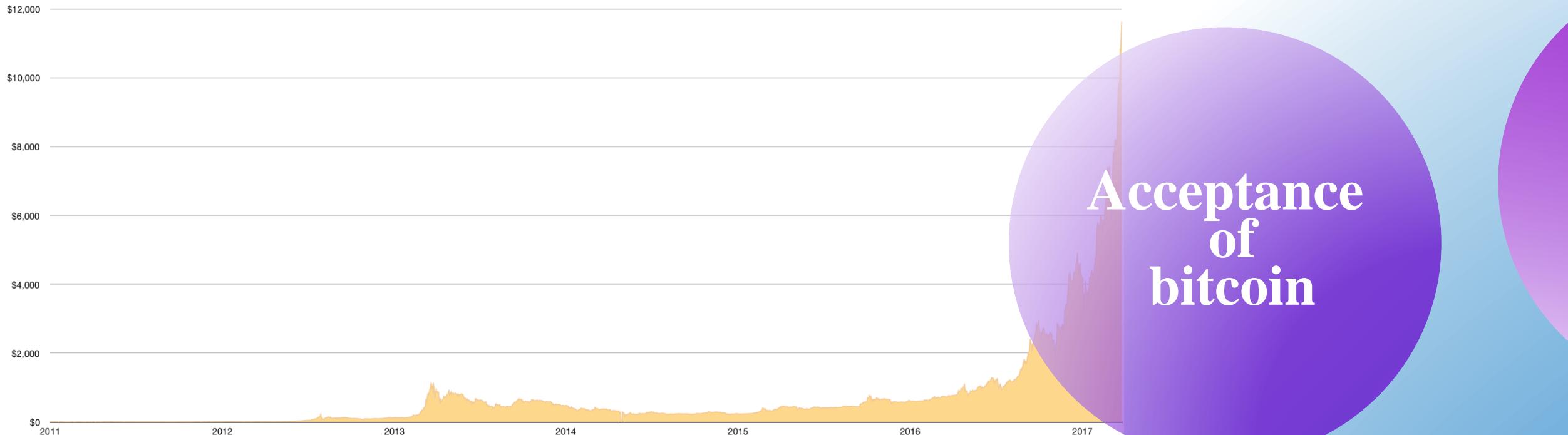


Valium 10mg/ Diazepam (100 Pills)
\$2.32



Silk road

Bitcoin Price History





Money
Electric: The
Bitcoin
Mystery



Why Bitcoin
Matters

GLOBAL ACCESS:
Send and receive
worldwide



FULL CONTROL:
Your keys, your coin



**OPEN &
TRANSPARENT:**
Every transaction is
visible



**SECURE &
AUTHENTIC:**
Blockchain can't
be faked



**PRIVACY
PROTECTION:**
No personal data
needed



LOW COSTS:
Lower fees than
banks





Global Access

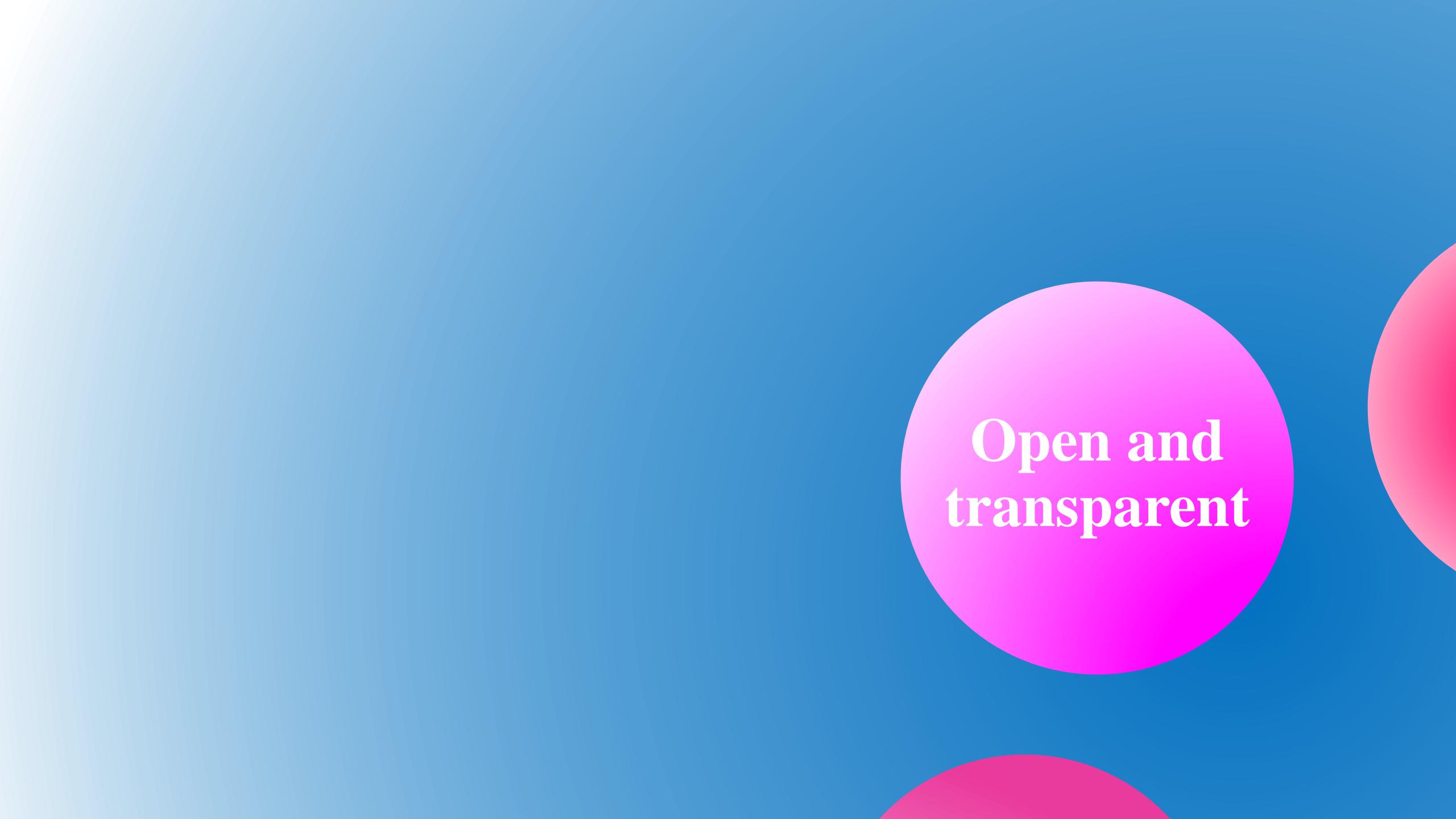


Full control



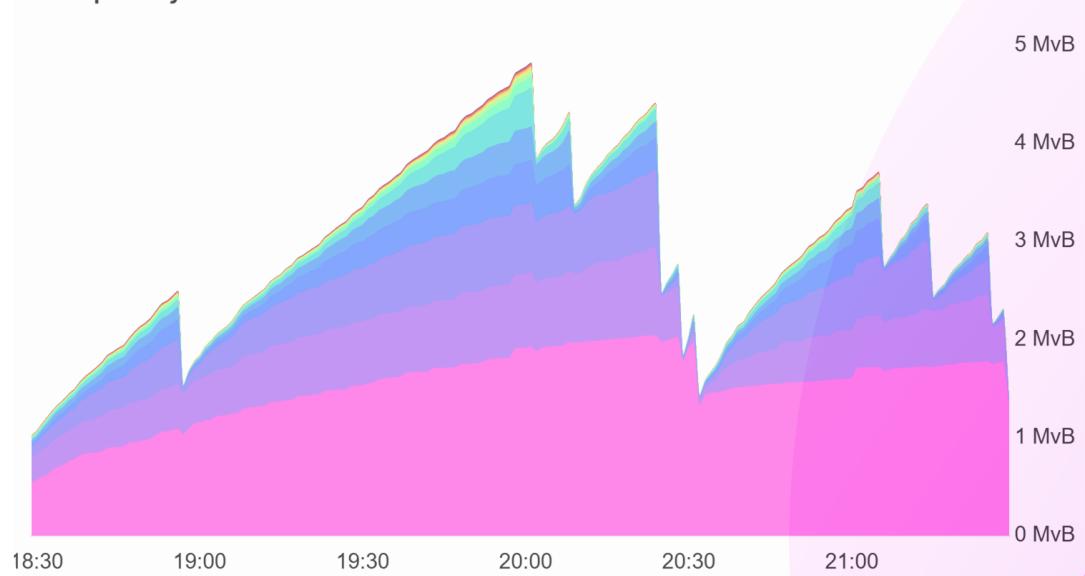
Privacy
protection





Open and
transparent

Mempool Bytes Per Fee Level

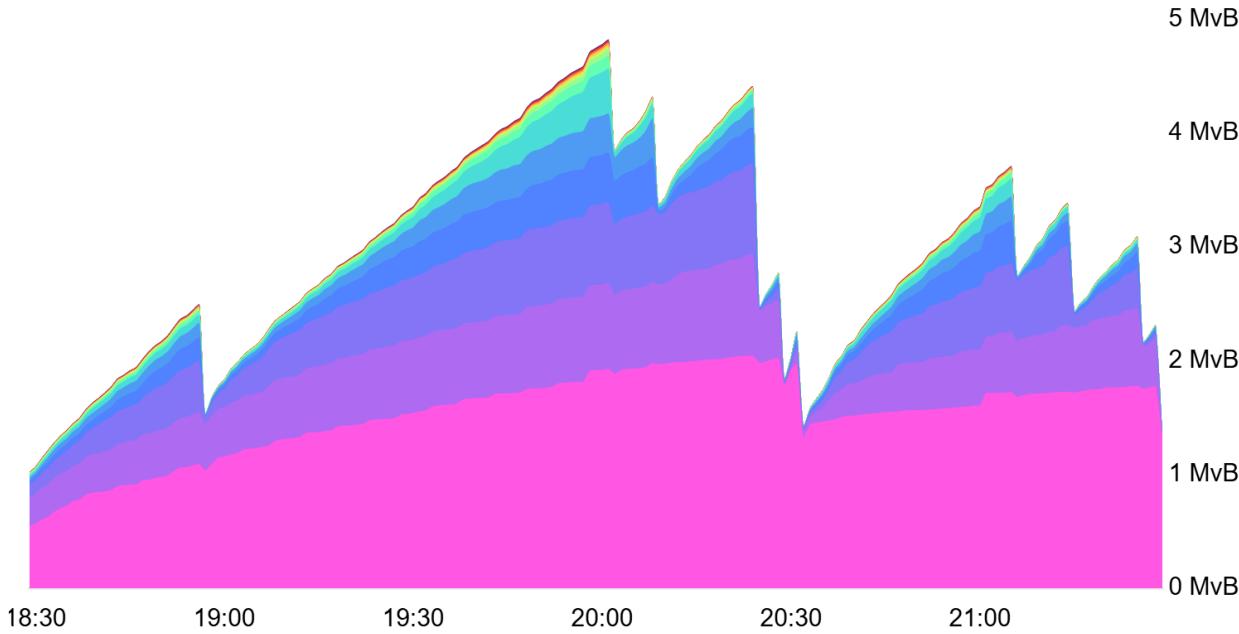


Bitcoin Mempool

Dive into the bitcoin mempool and discover economic trends onchain

Hash 3ba8-7fa1 11/08/2025, 21:35:36	0.00440358 BTC \$448.98
Hash b977-26c9 11/08/2025, 21:35:36	0.00018106 BTC \$18.46
Hash 9ce2-fc3a 11/08/2025, 21:35:35	0.00186826 BTC \$190.48
Hash ce9a-84b0 11/08/2025, 21:35:36	0.01681092 BTC \$1,713.99
Hash b7fd-bcc9 11/08/2025, 21:35:34	0.00222989 BTC \$227.35
Hash bba2-1d15 11/08/2025, 21:35:35	0.00099548 BTC \$101.50

Mempool Bytes Per Fee Level



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11/08/2025, 21:35:36

0.00440358 BTC
\$448.98

Hash [b977-26c9](#)
11/08/2025, 21:35:36

0.00018106 BTC
\$18.46

Hash [9ce2-fc3a](#)
11/08/2025, 21:35:35

0.00186826 BTC
\$190.48

Hash [ce9a-84b0](#)
11/08/2025, 21:35:36

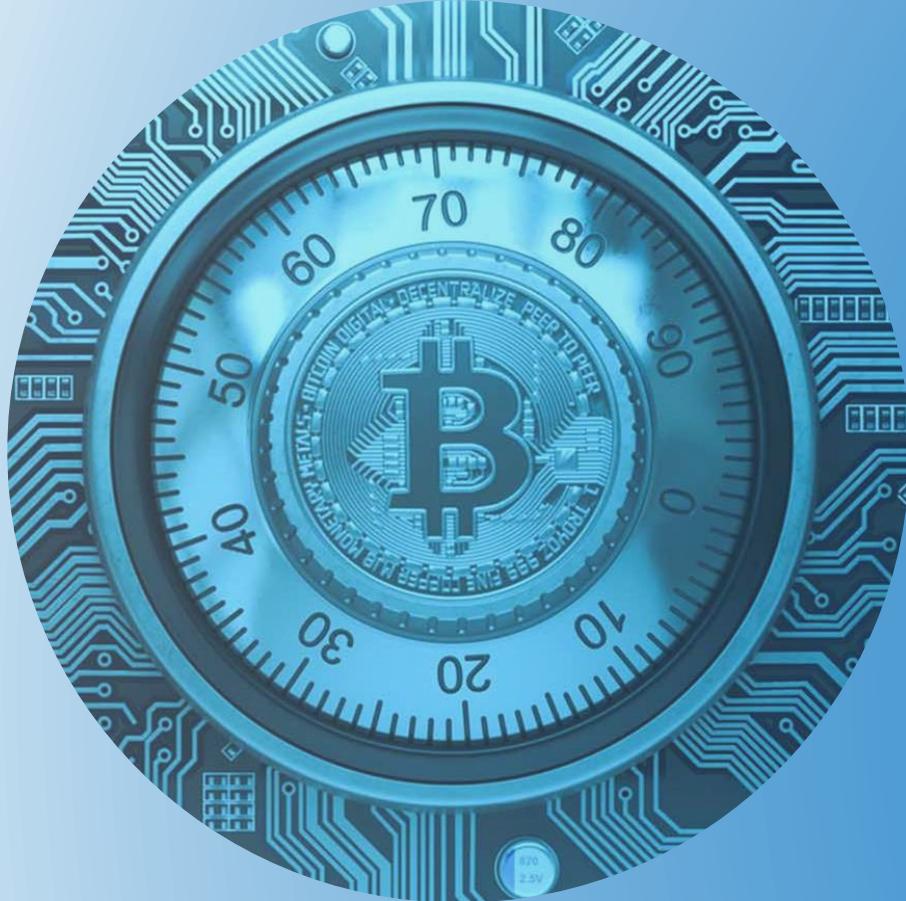
0.01681092 BTC
\$1,713.99

Hash [b7fd-bcc9](#)
11/08/2025, 21:35:34

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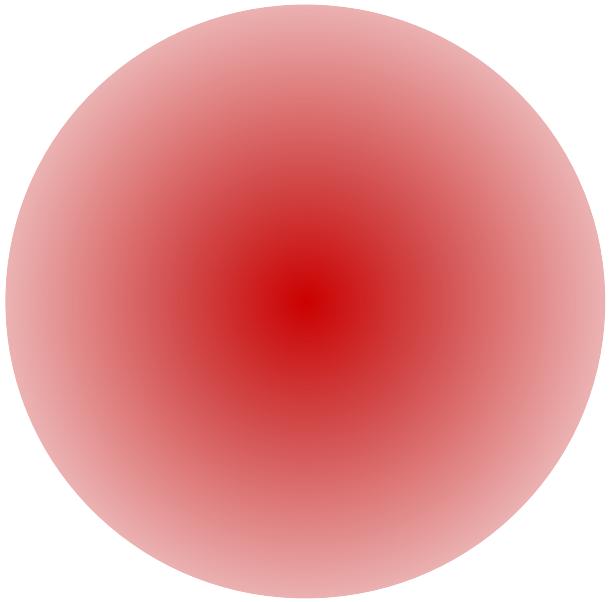
Hash [bba2-1d15](#)
11/08/2025, 21:35:35

0.00099548 BTC
\$101.50



Secure

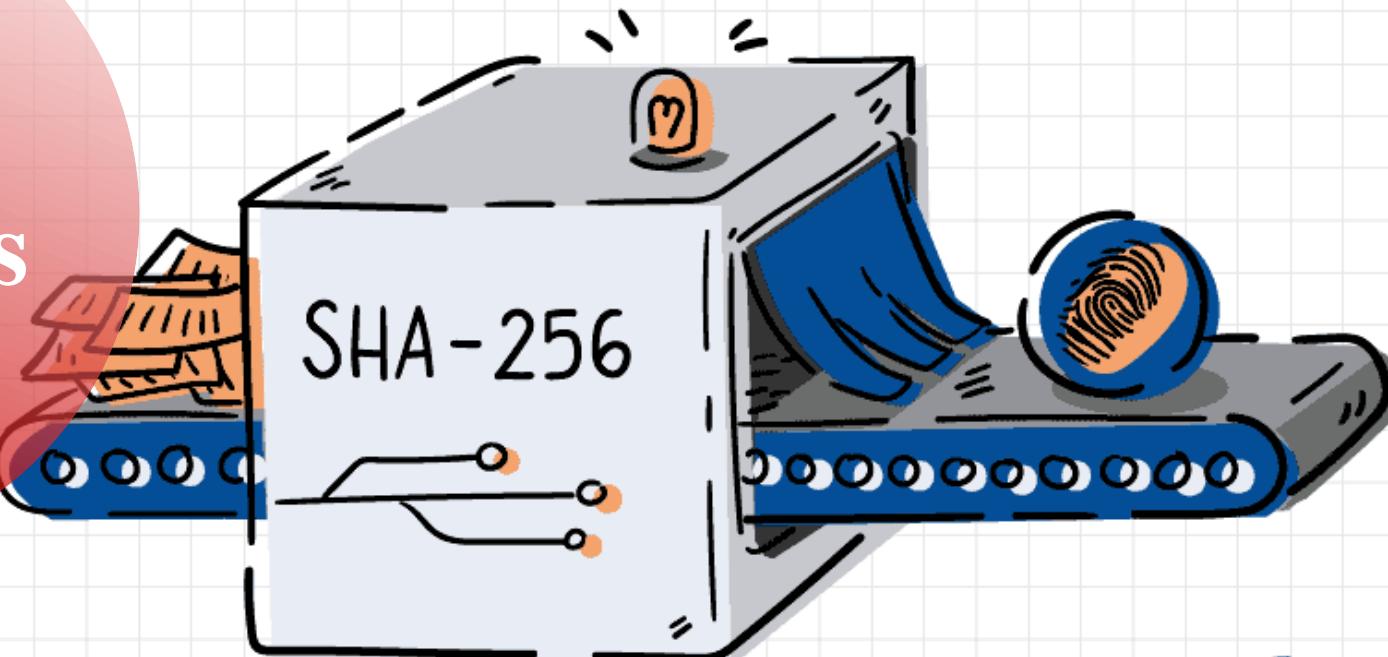
Cryptography PRIMER



Why Crypto?

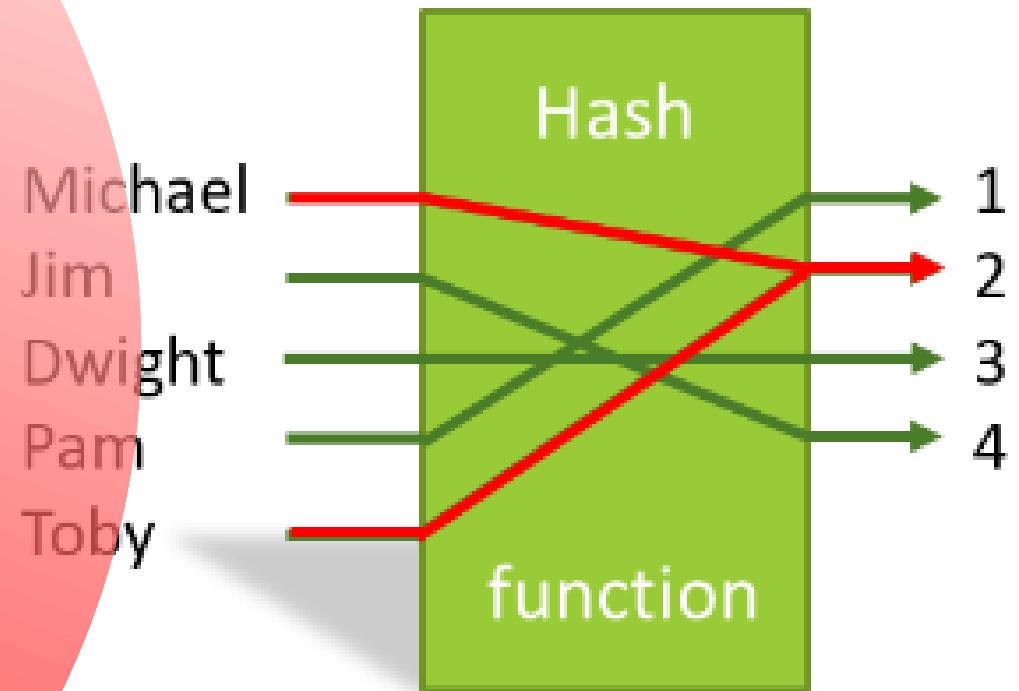


Hash Functions



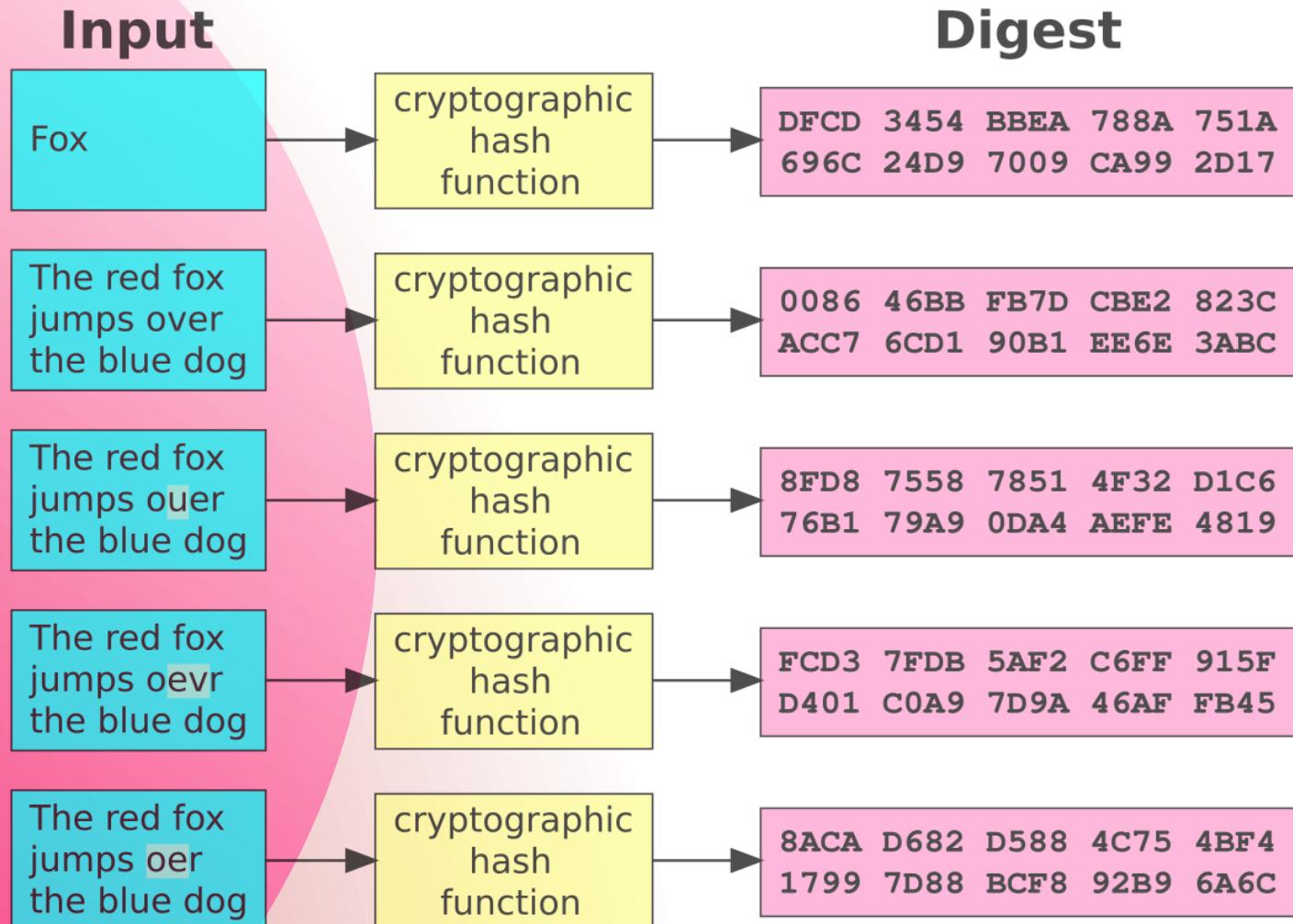
Properties Of hash functions

- Can be applied to a message of any size
- Produces fixed length output
- It is easy to compute



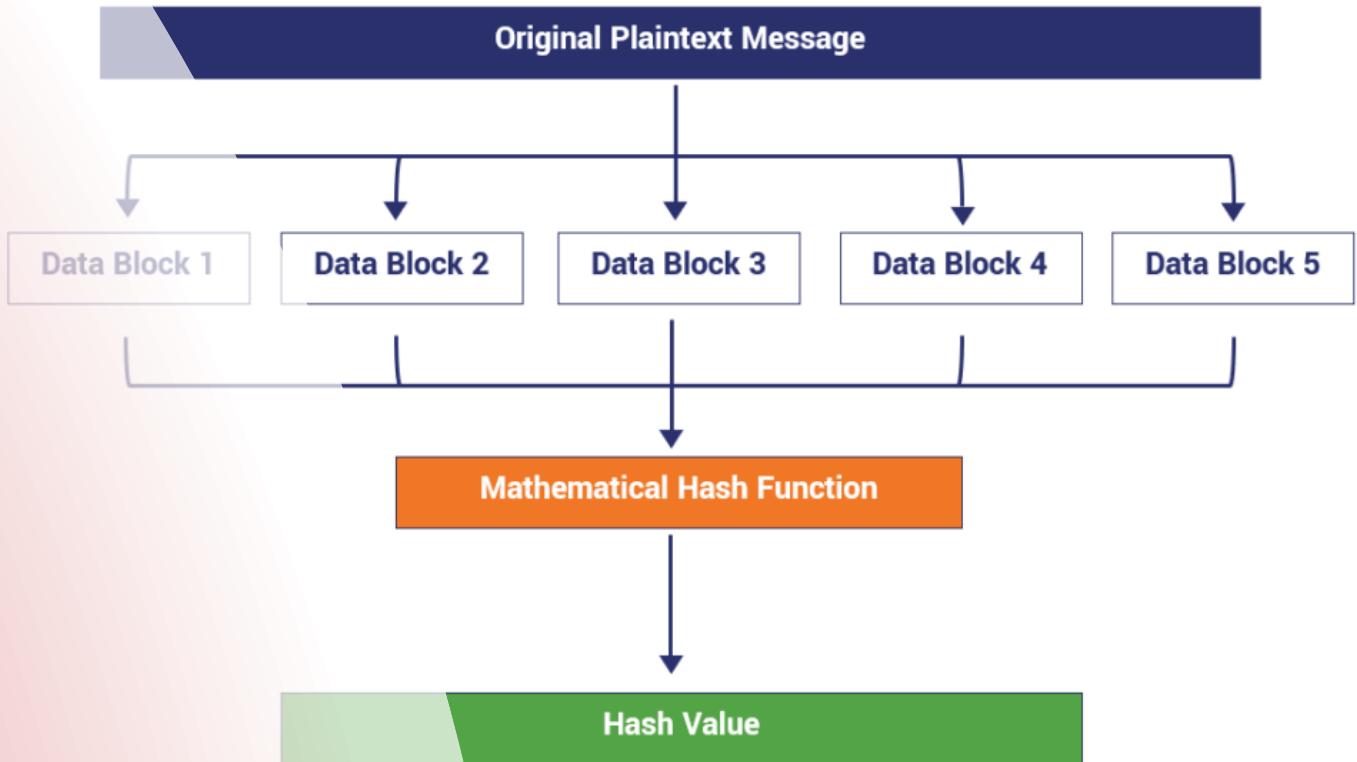
Properties of secure hash functions

- Preimage resistance
- Second image resistance
- Collision resistance
- Avalanche effect



SHA-2

How Hashing Works



Public/Private Keys



Asymmetric cryptography

KEY PAIR

PRIVATE KEY



USED TO SPEND BITCOIN
THAT IS LINKED TO THE
PUBLIC KEY

CAN CREATE



CAN'T CREATE

PUBLIC KEY

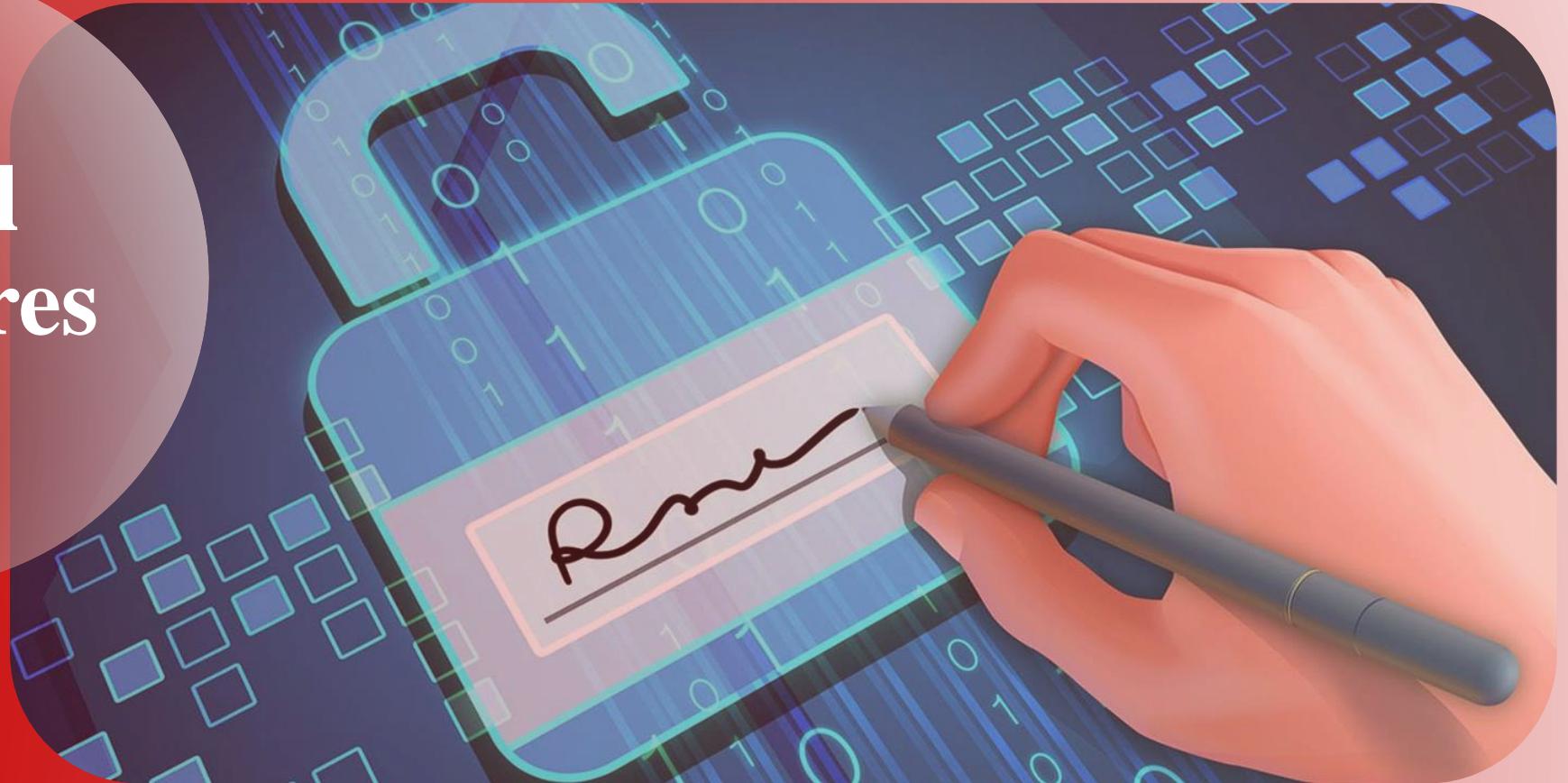


USED TO BUILD ADDRESSES
FOR RECEIVING BITCOIN AND
CHECKING BALANCES

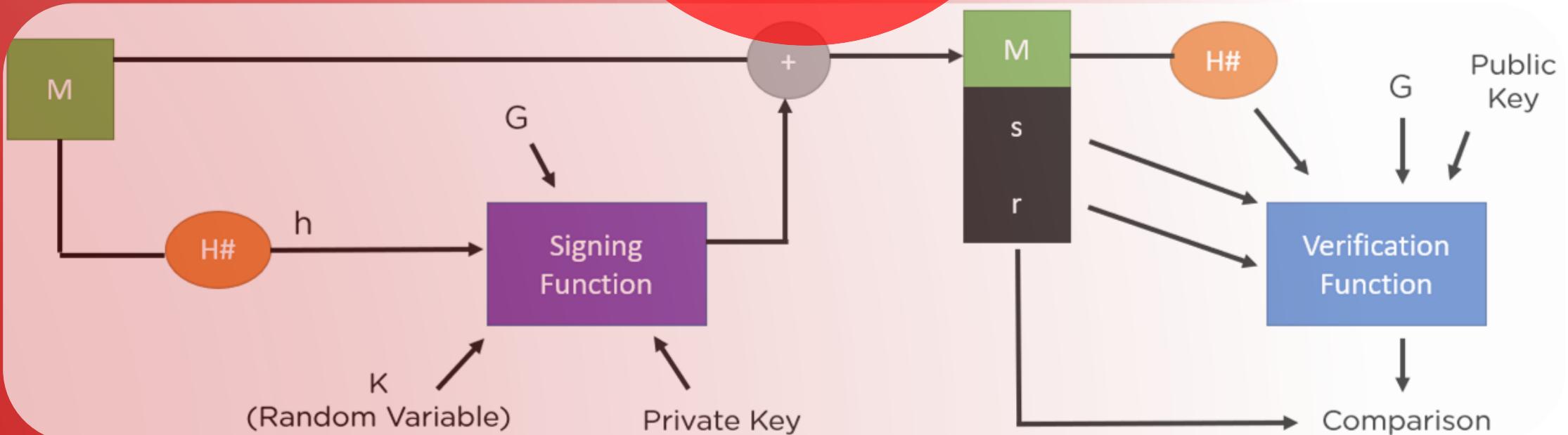
Create bitcoin private key



Digital Signatures



DSA





**How actually
bitcoin works**

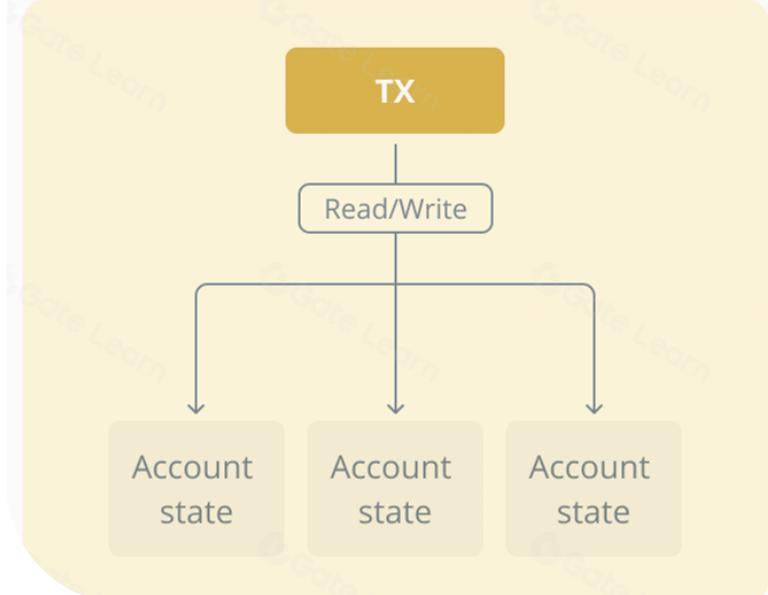


**How actually
bitcoin works**

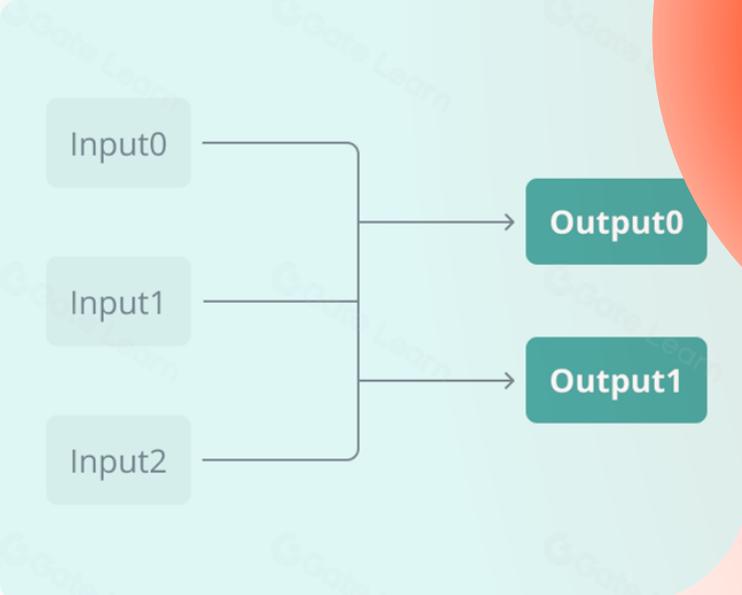
Transactions & Wallets

Account model vs. UTXO model

Account Model



UTXO Model





Wallets

Mnemonic seed phrase

answer

pattern

name

stove

basic

narrow

invite

fork

base

approve

island

foil

story

force

patient

barely

narrow

fortune

myth

naive

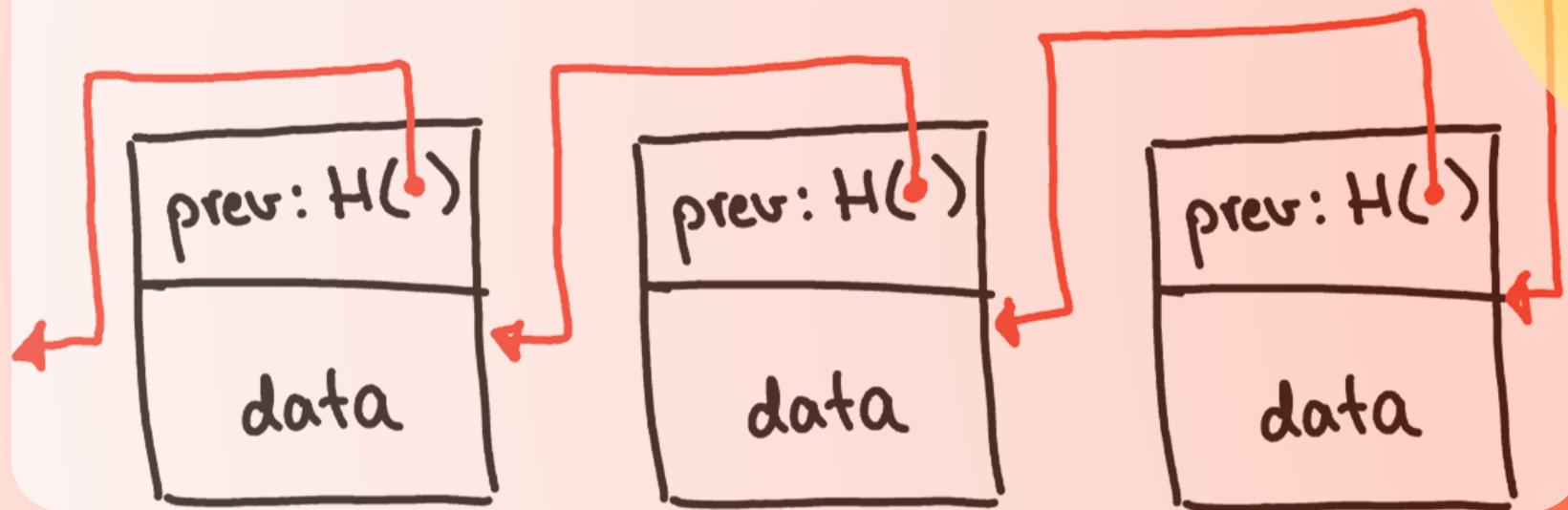
involve

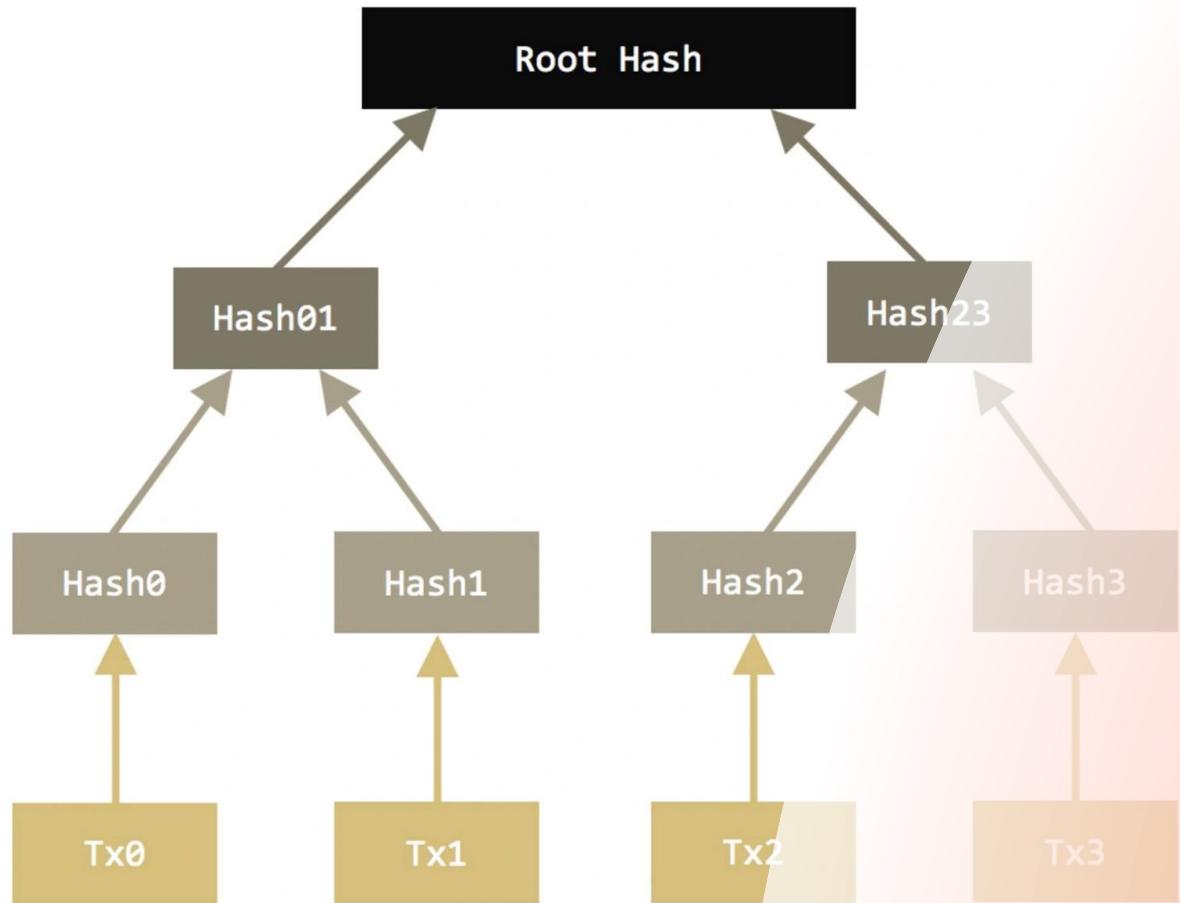
food

iron

anxiety

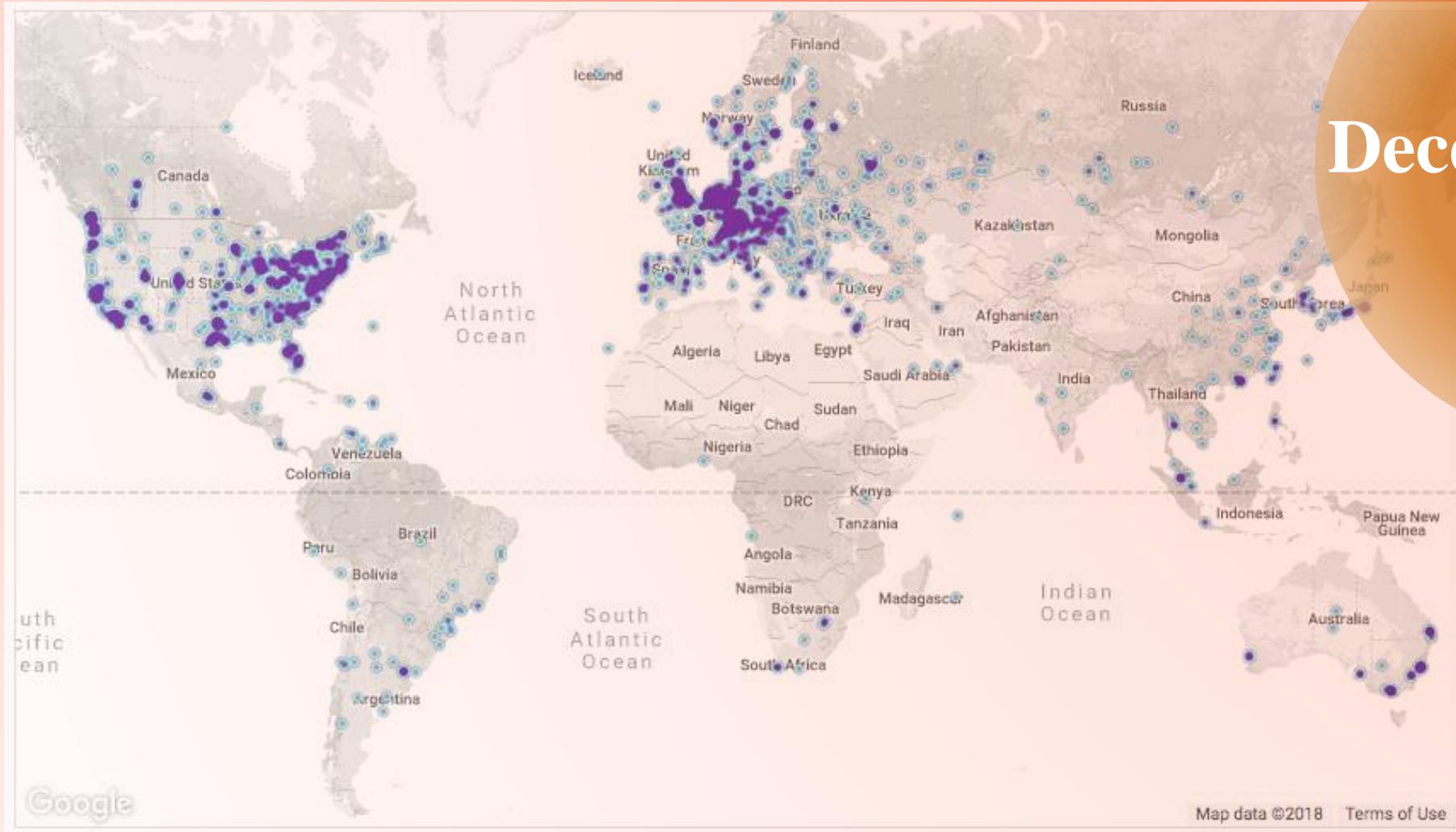
H(G) Block chain





Merkel Tree

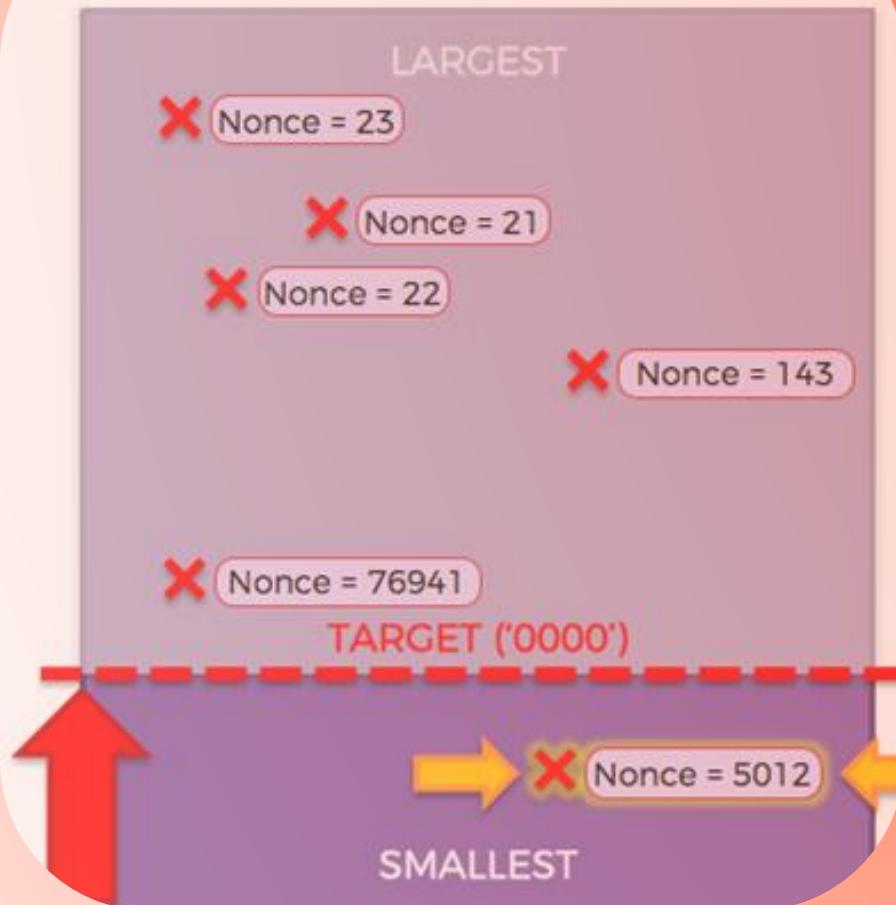
Decentralization





Mining & Proof-of-Work

- ALL POSSIBLE HASHES -

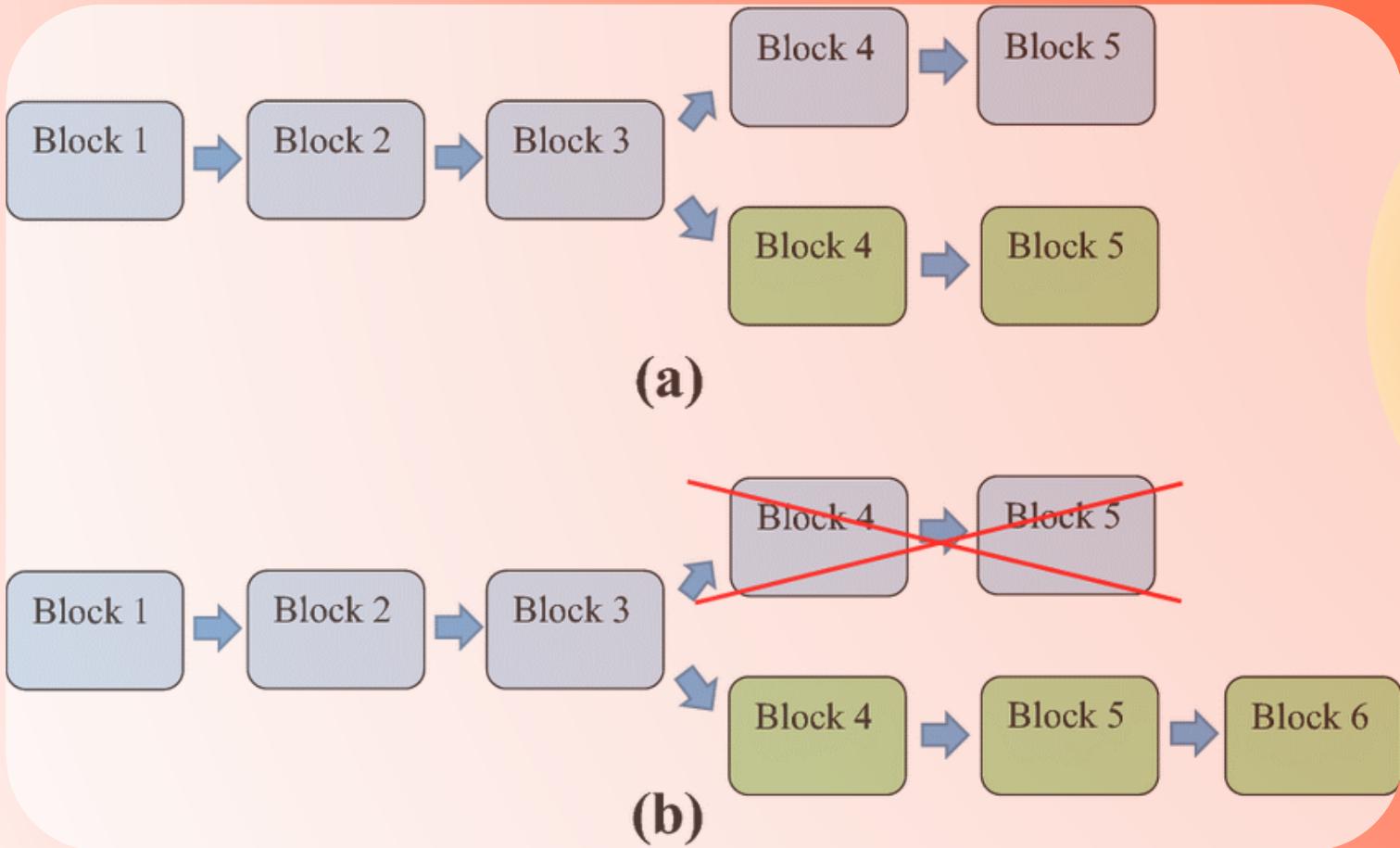


Target



Reward

Fork





Recap





