
Inversión en Criptomonedas

Para empezar...

¿Quién Soy?

Javier Trujillo



@javierblockpro



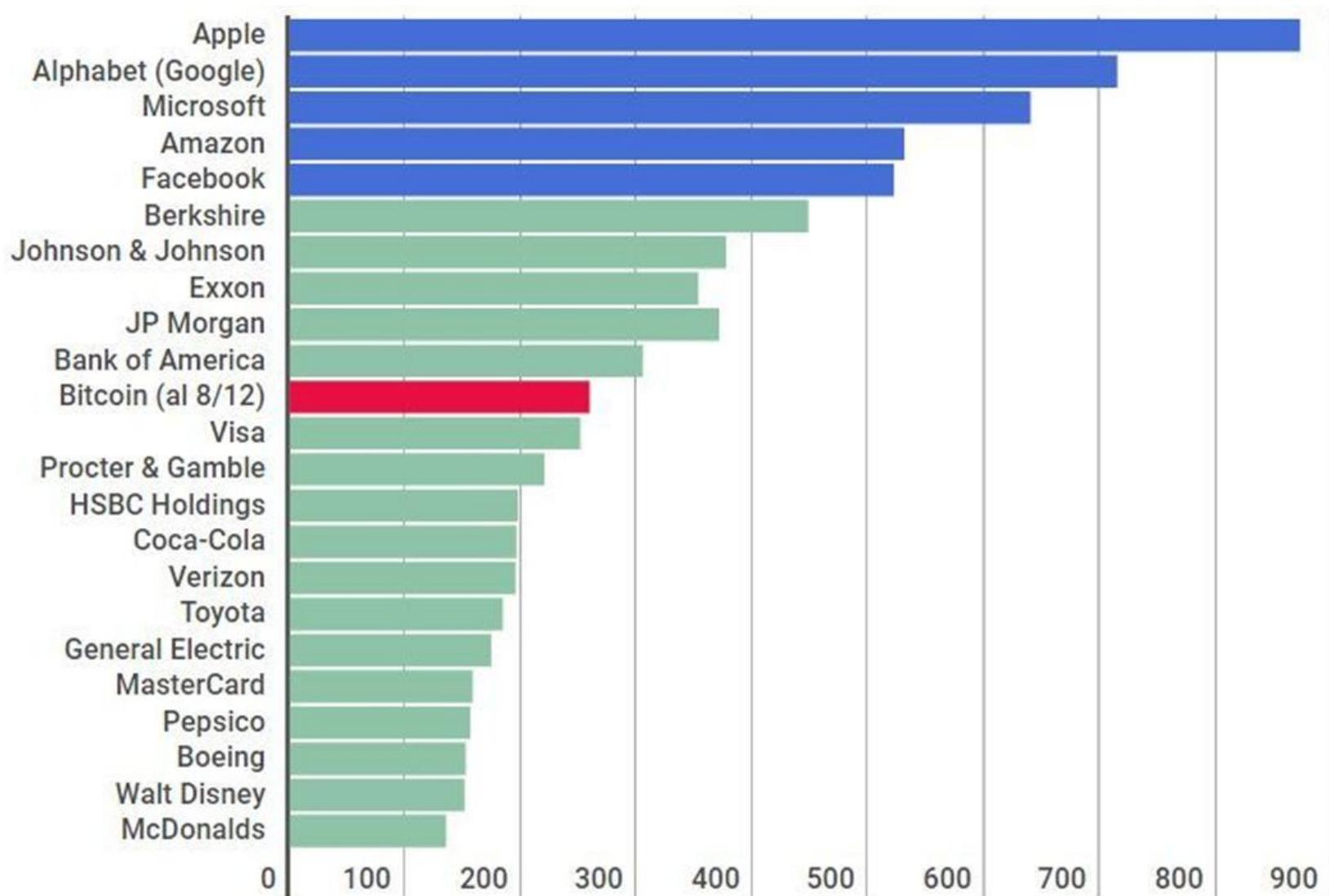
BLOCKCHAIN
Academy



@blockchainacaco

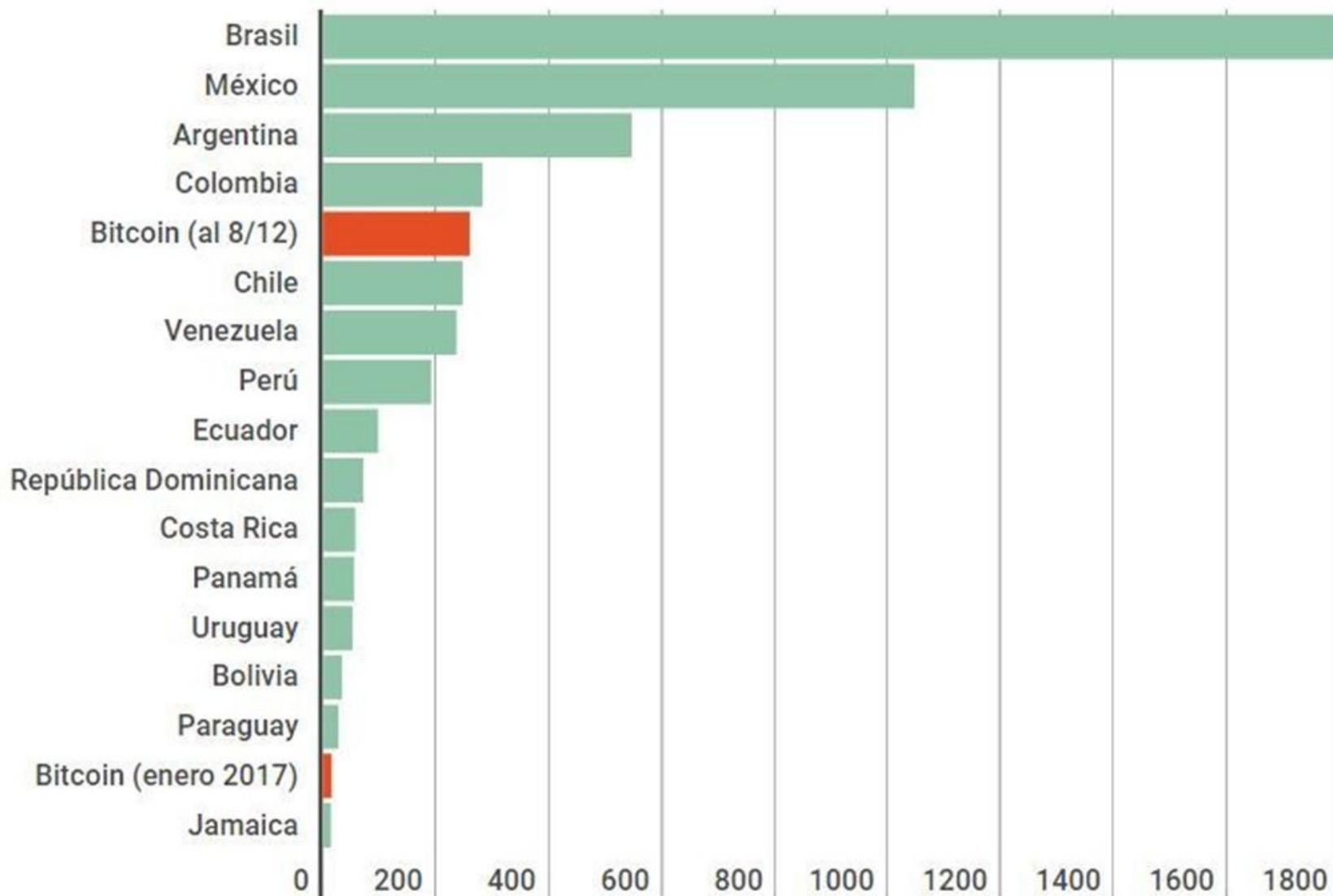
www.blockchainacademy.com.co

Lista de Forbes si Bitcoin fuera una empresa (2017)



*Las 5 empresas con mayor valor accionario, en millones de dólares y otras firmas líderes en sus sectores

Capitalización del Bitcoin / PBI de los países (2016)



(cifras en miles de millones de dólares, al PBI nominal)

Fuente: Banco Mundial, FMI, CoinDesk

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No wonder investors are rushing into cryptocurrencies – average ICO returns are 1,320%



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Oct. 18, 2017, 4:45 AM [🔥 8,049](#)

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Para empezar...

¿Para quien va
dirigido este curso?

Para empezar...

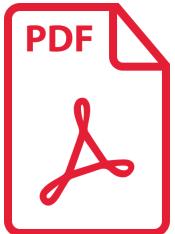
Objetivos del curso

Entendimiento conceptual y técnico sobre Blockchain

Bitcoin y criptoactivos

Modelos de Negocio

Bitcoin



edition:cnn.com

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Real cost of green energy



Sure, your electric car is better for the environment. But is it really ethical?

Top stories



ANALYSIS What Mueller's questions for Trump say about Russia probe



OPINION Trump's 'fire and fury' won't help in Middle East

Trump: Mueller questions leak 'disgraceful'

Police dig up German riverbank in search for toddler missing since 1981

May Day protesters demand workers' rights

ad's explicit goal: Nuclear Weapons
Original Iranian presentation
duce and
each with
NT yield.
on on a



Israeli PM Netanyahu defends Iran nuclear accusations

Iran and Israel draw closer to war than ever

NETFLIX



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Bitcoin P2P e-cash paper

Satoshi Nakamoto [satoshi at vistamail.com](mailto:satoshi@vistamail.com)

Fri Oct 31 14:10:00 EDT 2008

- Previous message: [Fw: SHA-3 lounge](#)
- **Messages sorted by:** [\[date \]](#) [\[thread \]](#) [\[subject \]](#) [\[author \]](#)

I've been working on a new electronic cash system that's fully peer-to-peer, with no trusted third party.

The paper is available at:

<http://www.bitcoin.org/bitcoin.pdf>

The main properties:

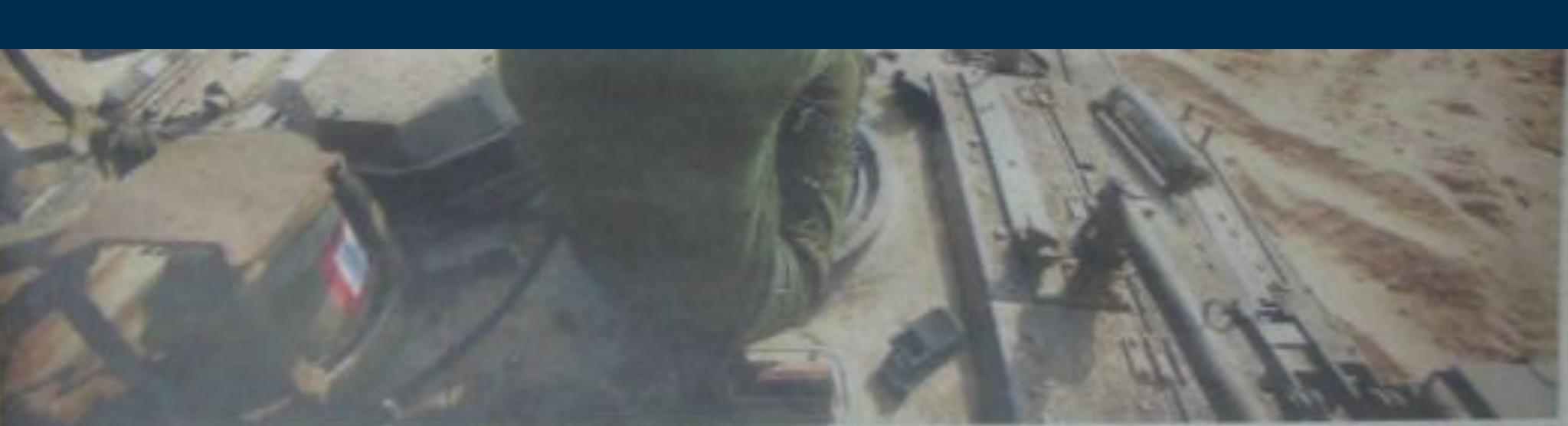
Double-spending is prevented with a peer-to-peer network.

No mint or other trusted parties.

Participants can be anonymous.

New coins are made from Hashcash style proof-of-work.

The proof-of-work for new coin generation also powers the network to prevent double-spending.



Israel allowed foreigners to flee the Gaza Strip as it prepared for a ground offensive. At least 430 Palestinians were killed in a week of airstrikes. Times, page 2

Chancellor on brink of second bailout for banks

Billions may be needed as lending squeeze tightens

Frances Elliott Deputy Political Editor
Nicky Duncan Economics Editor

Labour During the year ahead, he will consider a second bailout for banks hit by lending drought systems.

The Chancellor will decide within weeks whether to pump billions more into the economy as economic recovery fails the £10 billion predicted earlier this year.

They that, despite intense pressure, the banks curbed lending in the final quarter of last year and plan even tighter restrictions in the coming months. His 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

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 hands of troubled banks, perhaps swapping them for government bonds. The toxic assets blamed for polluting 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 could mirror the initial

99p

Características

- No permite doble gasto
- Sin riesgo de terceros
- Costo insignificante
- Veloz
- Sin derecho de admisión
- Internacional
- Sin confiscación posible
- Limitado



“Bitcoin es un increíble logro criptográfico y la habilidad de crear algo que no se puede duplicar en el mundo digital tiene un valor enorme”

Eric Schmidt
Presidente Ejecutivo de Google



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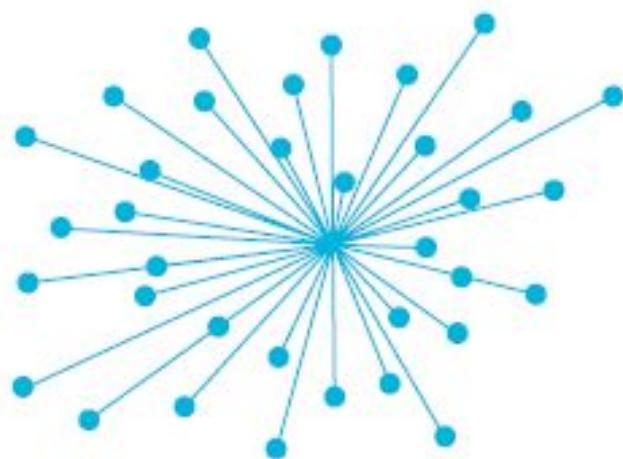


“Blockchain es un increíble logro criptográfico y la habilidad de crear algo que no se puede duplicar en el mundo digital tiene un valor enorme”

Eric Schmidt
Presidente Ejecutivo de Google

DLTs y Blockchain

Pasado: centralizado



The Wall Street Journal, The Times, Hilton

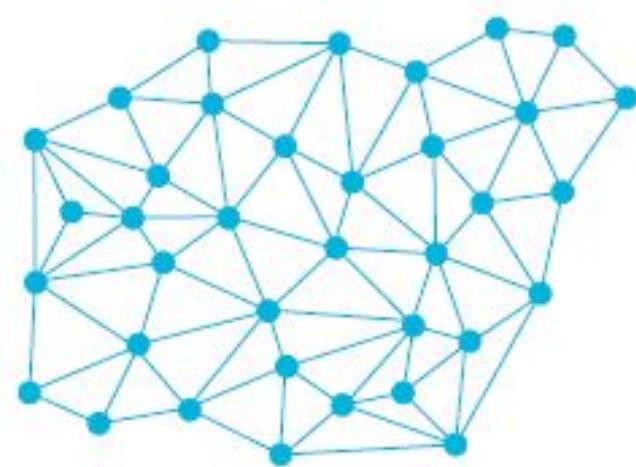
Presente: descentralizado



Facebook, Twitter, Dropbox, Airbnb

Block chain

Futuro: distribuido



One name, Thingchain, Augur y Filament





BLOCK CHAIN TECHNOLOGY

- Distribuido
- Consenso
- Global
- Velocidad
- Criptografía
- Transparencia
- Inmutable
- Sin intermediarios

Criptomonedas/ Criptoactivos



ethereum







1.0

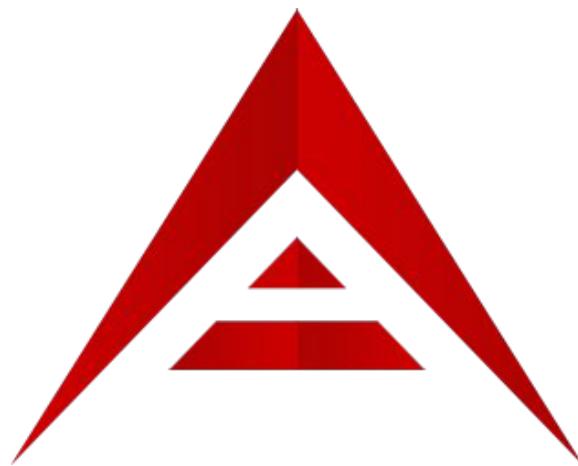
Blockchain 1.0

2.0

Blockchain 2.0

3.0

Blockchain 3.0



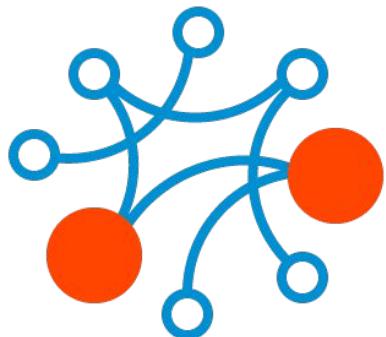
E O STM

nem 

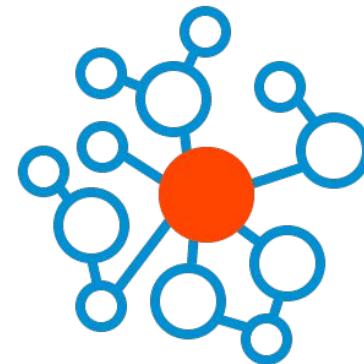
The word "nem" is written in a bold, black, sans-serif font. To the right of the "m", there is a small logo consisting of three overlapping shield-like shapes in yellow, blue, and teal.

Reto 1

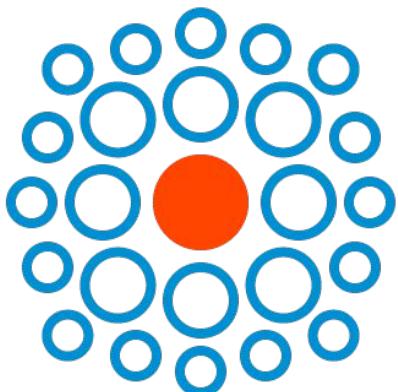
4 Tipos de Redes de Blockchain



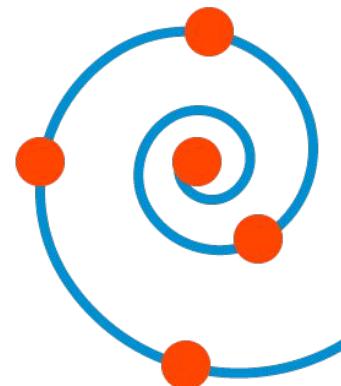
Blockchain Consorcio



Blockchain Semi-privada



Blockchain Privada



Blockchain Pública



HYPERLEDGER

corda



**ENTERPRISE
ETHEREUM
ALLIANCE**



mijin

Algunas Categorías de Criptoactivos

- **Currency:** Bitcoin, Litecoin, Dash, Bcash,
- **Private Currency:** Zcash, Navcoin, Monero, PIVX
- **Social:** Steem, Status, ReddCoin
- **Desarrollo:** Ethereum, ICON, EOS, QTUM, NEM
- **Almacenamiento:** SIA, Filecoin, Storj
- **Internet of things:** IOTA, IOT Chain

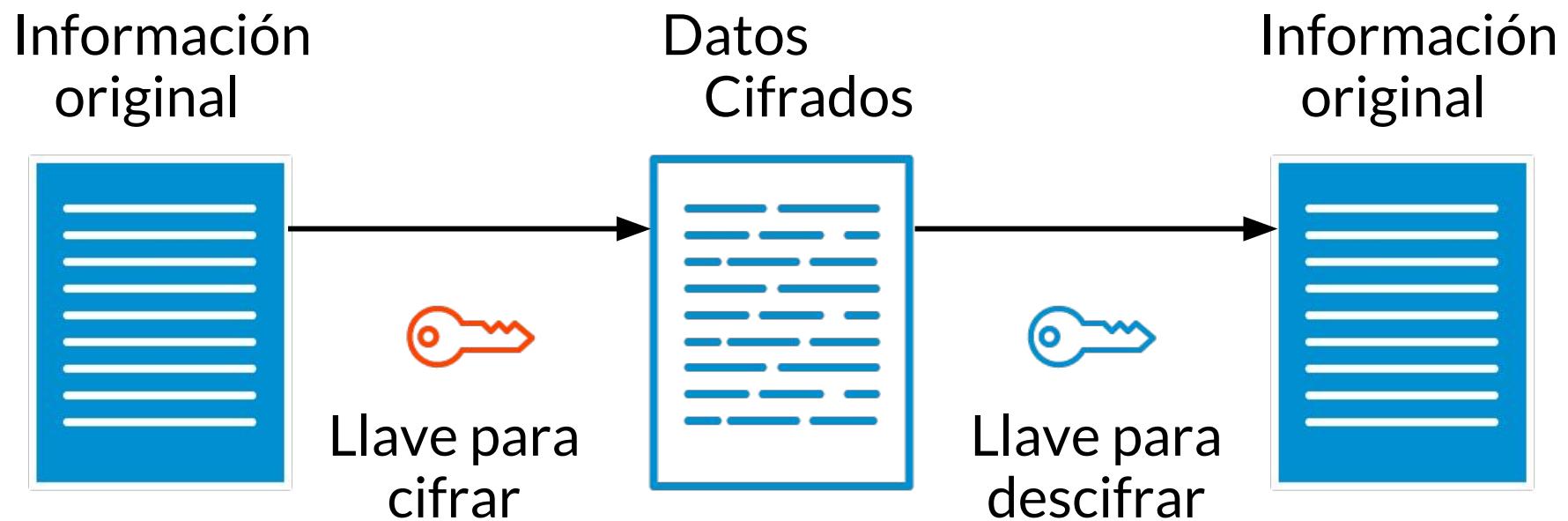
ICO

DAICO

ITO

Reto 2

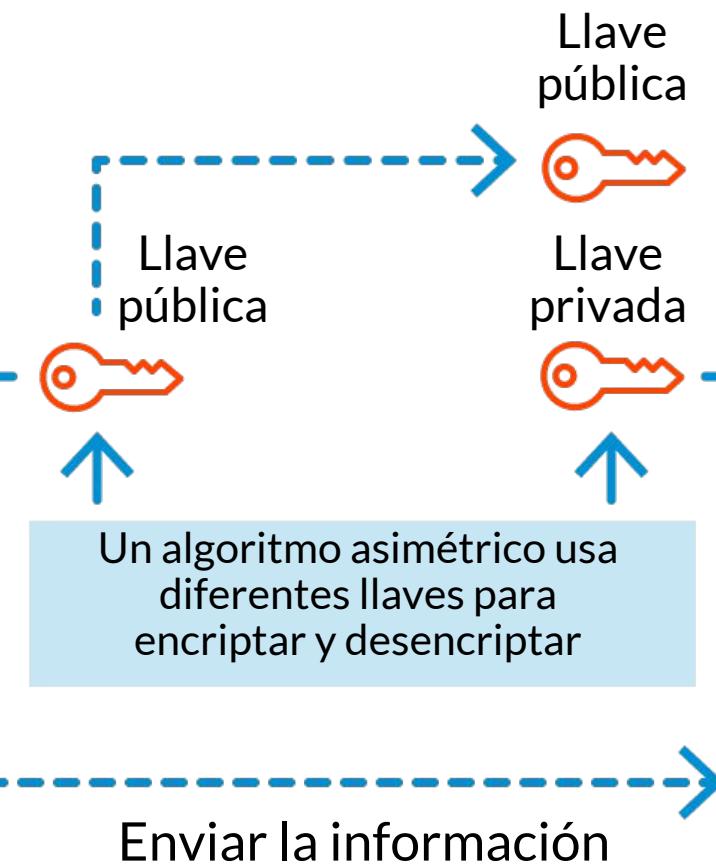
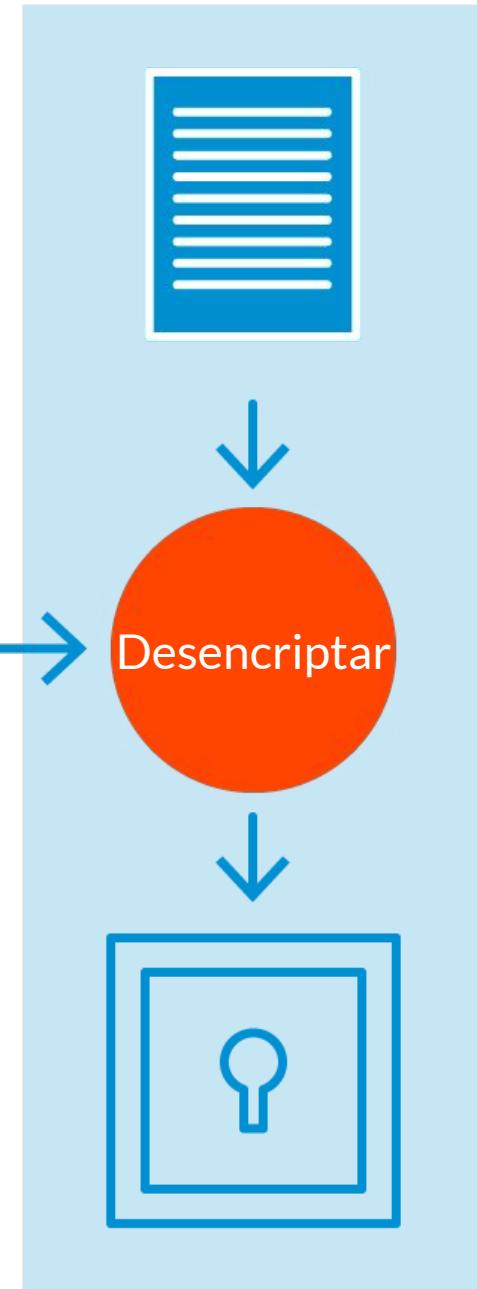
Criptografía simétrica y asimétrica



Información no encriptada



Archivo no encriptado



Resultado encriptado

Archivo encriptado

Dirección Pública y Llave privada

Bitcoin Address



Public Key



1M3RLrXve5wcT2ZcJu8WXoXjdh4WXcWQA9

Private Key (Wallet Import Format)

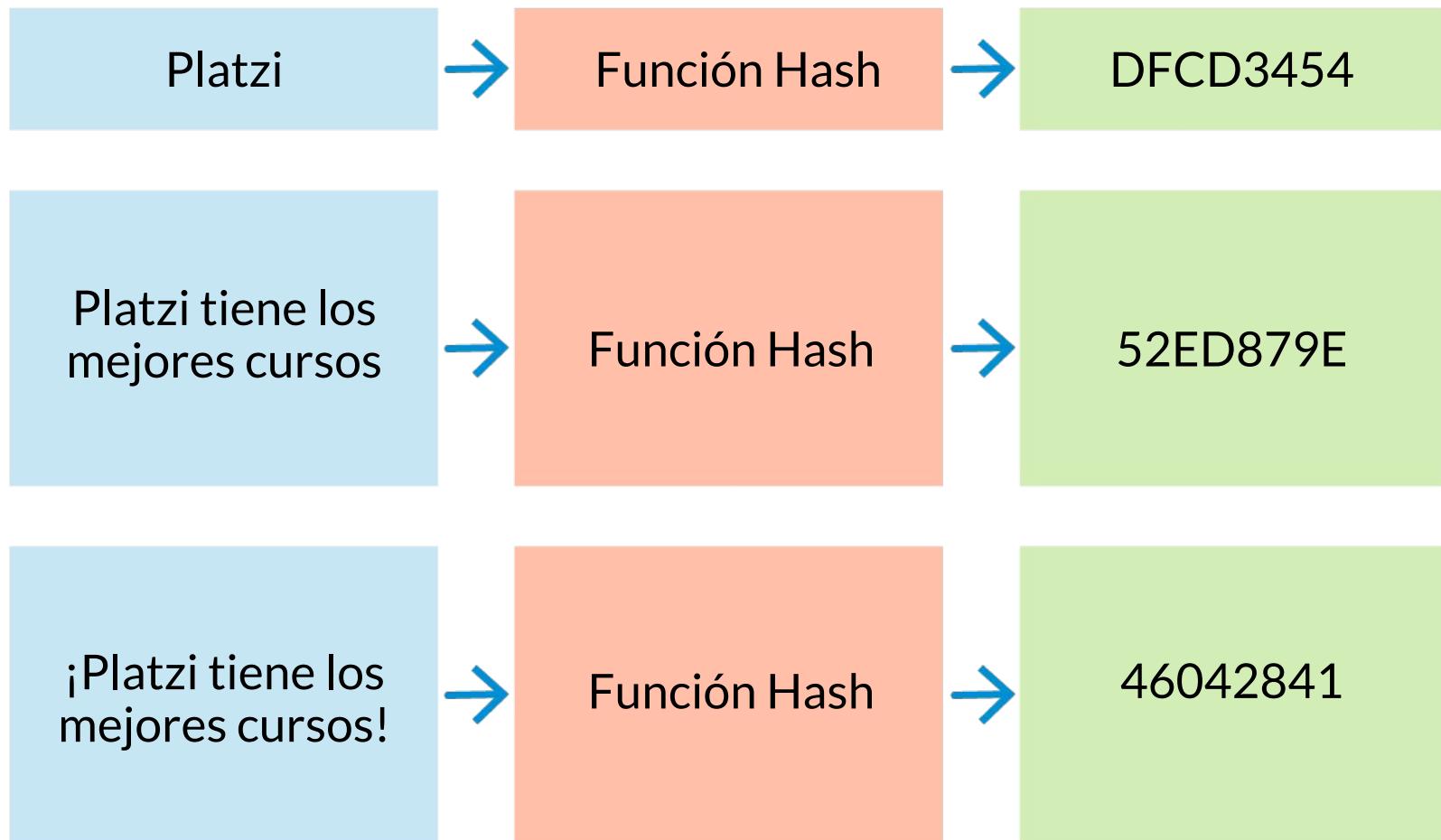


Private key



5K8BwE76VsatQiRa5wJpGng7758FAz4vLkMxAry8QnyZTdQJxPn

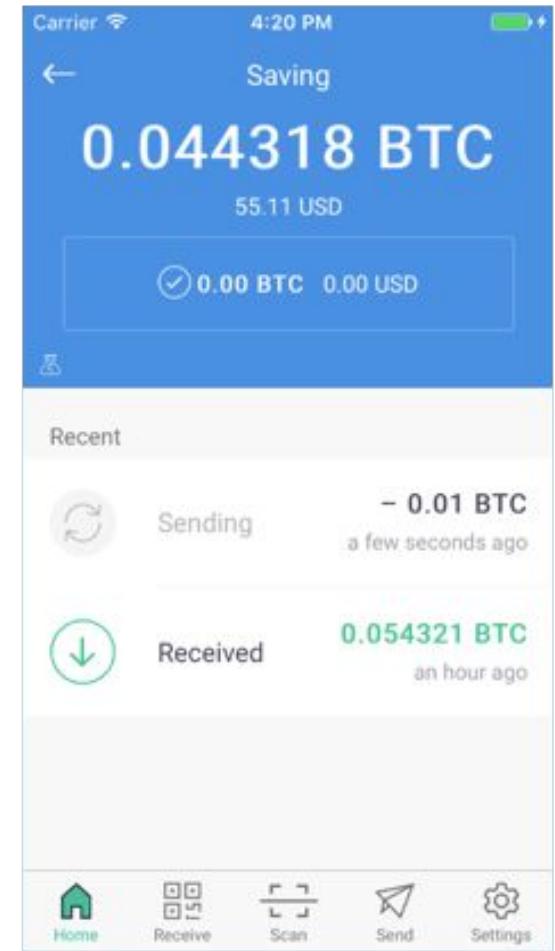
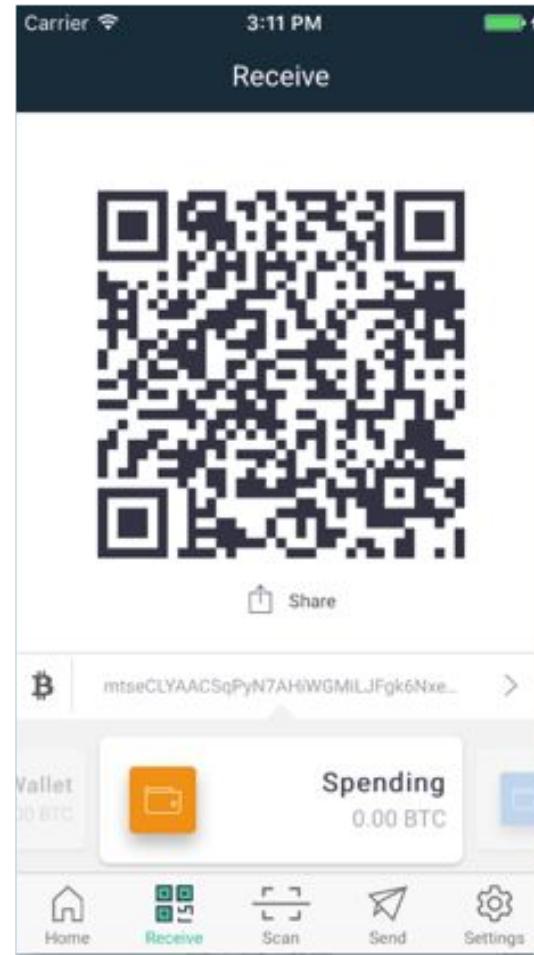
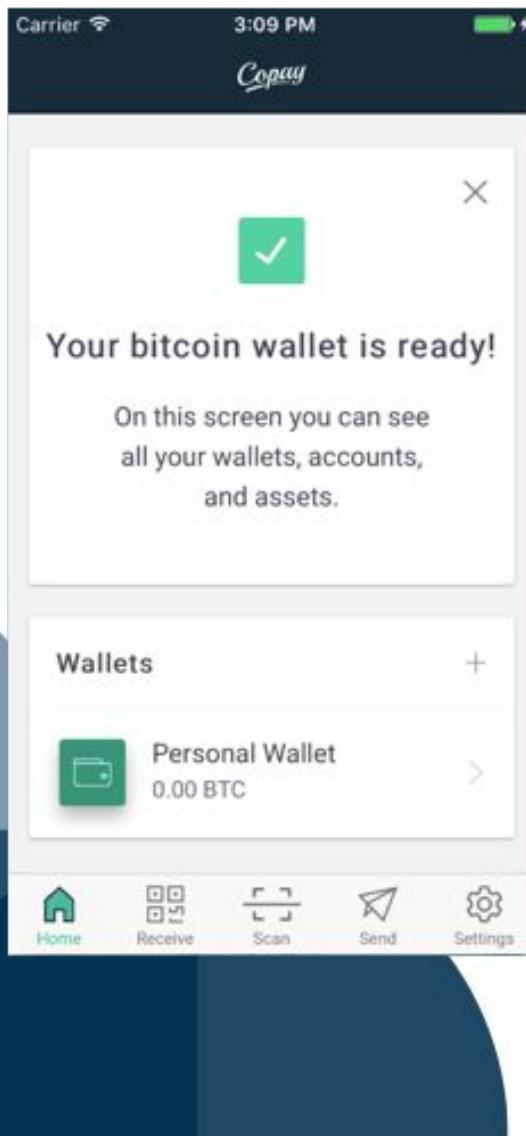
Funciones Hash



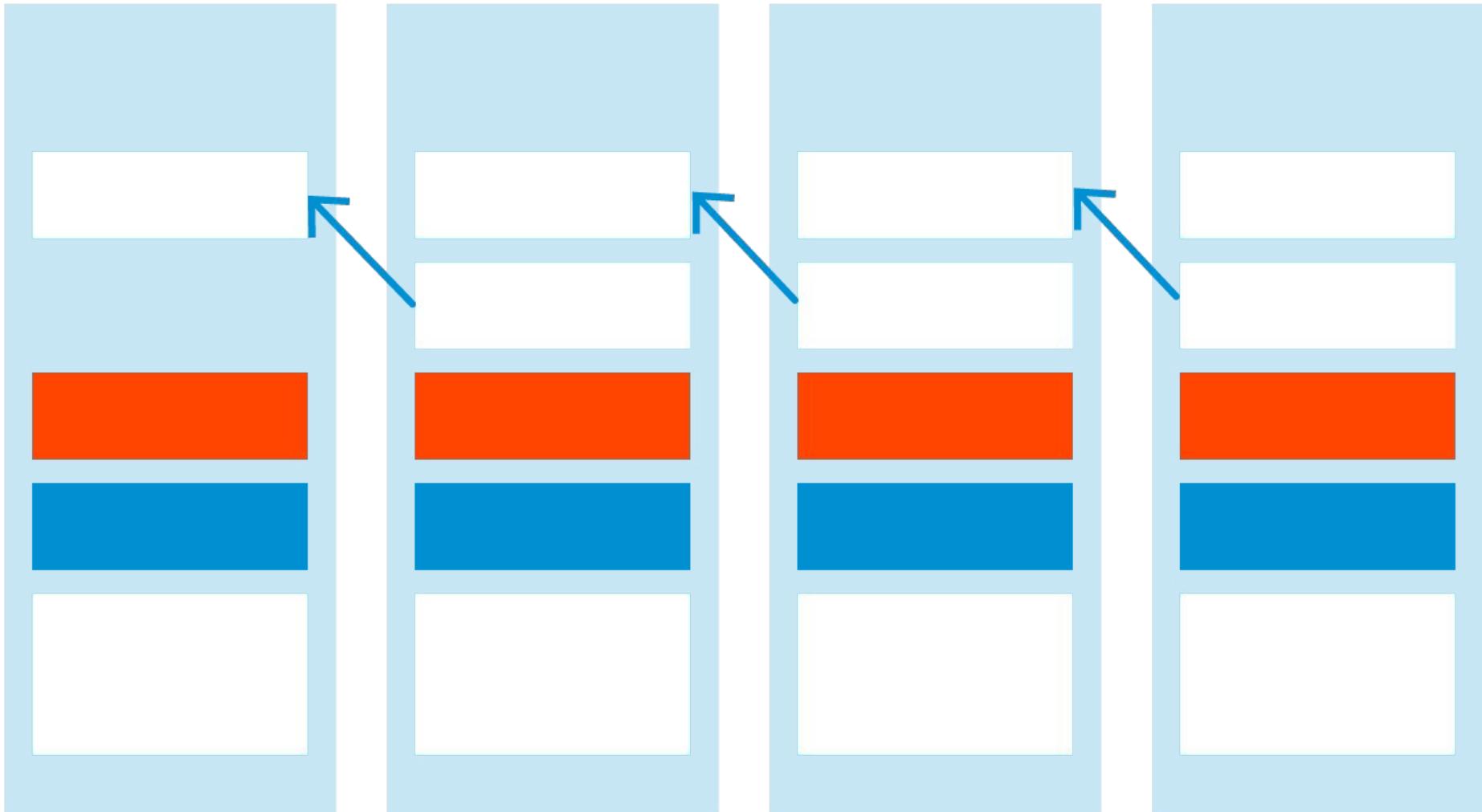
Reto 3

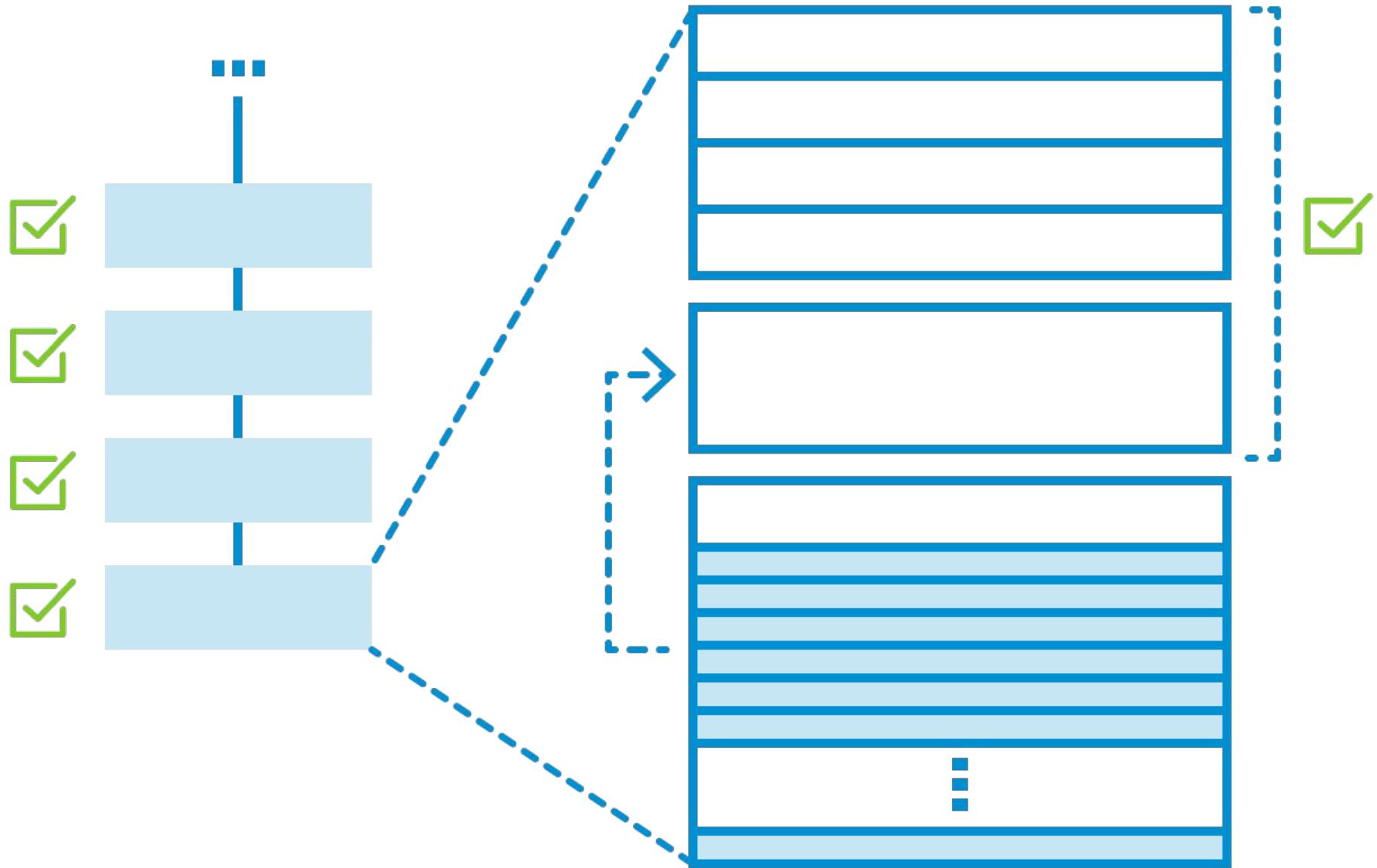
<https://anders.com/blockchain/hash.html>

Wallet/Billetera/Monedero

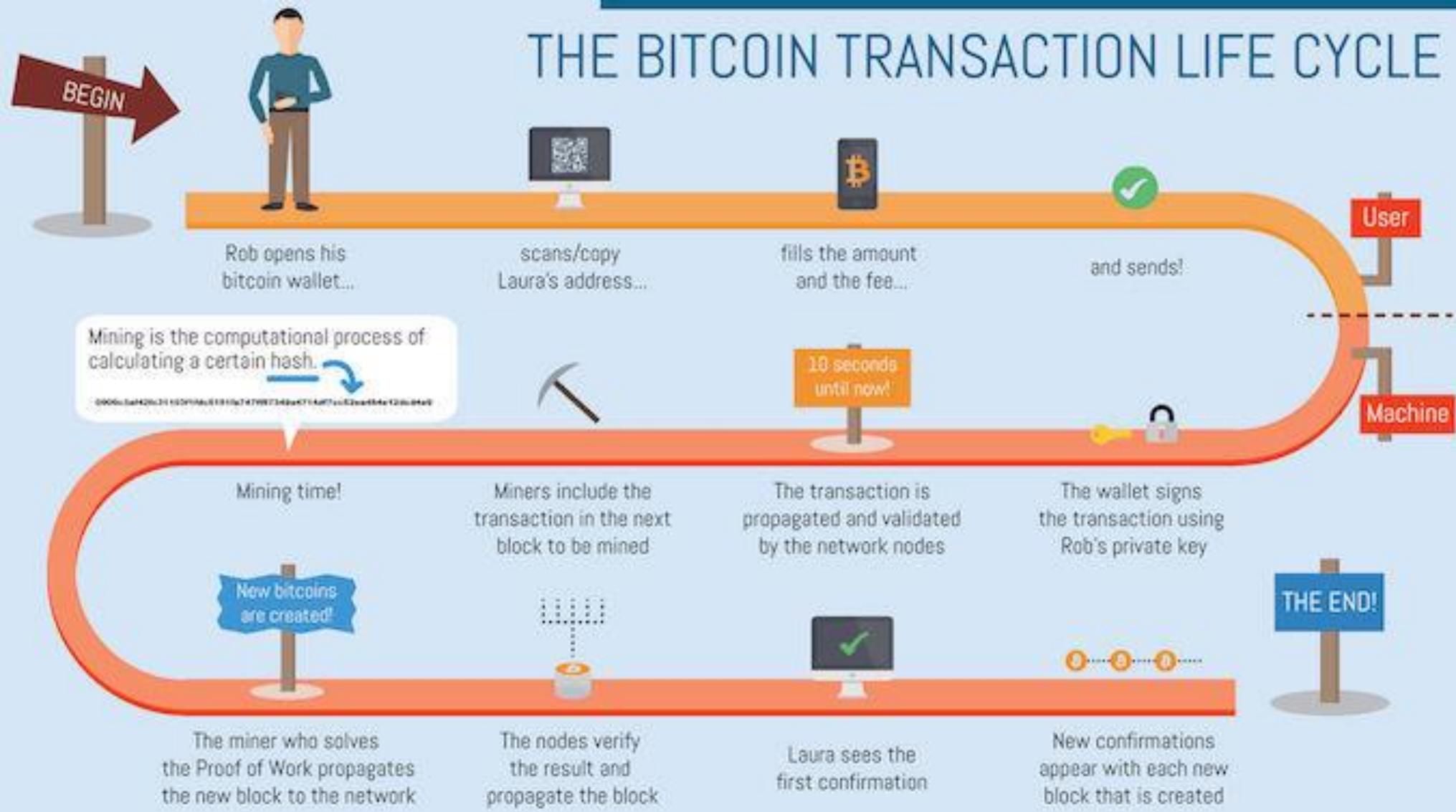


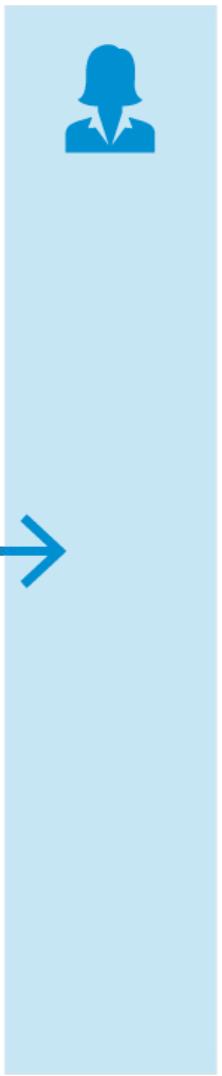
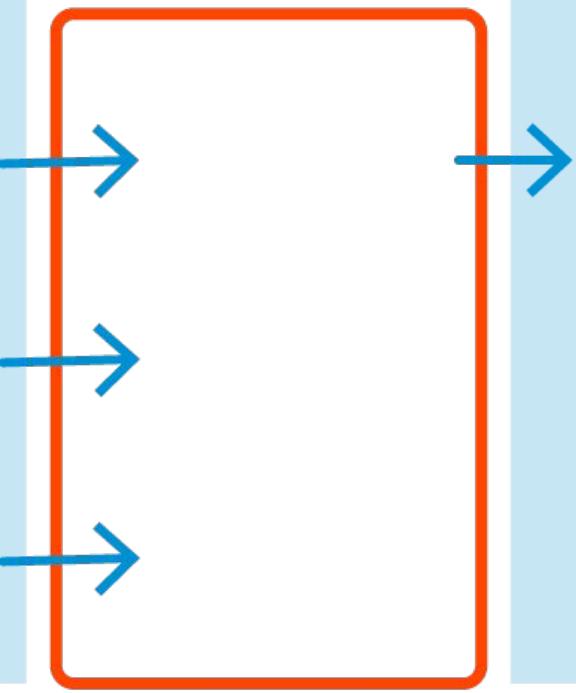
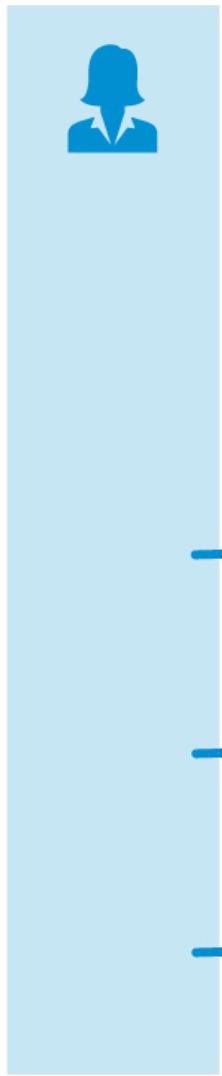
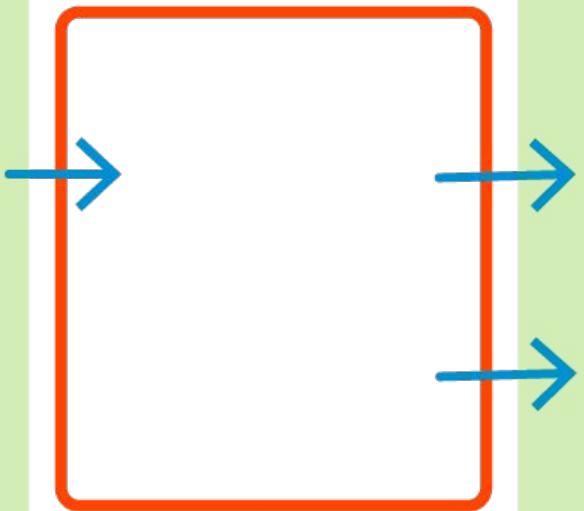
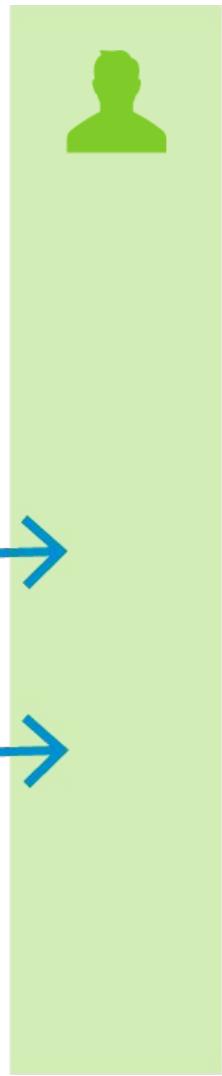
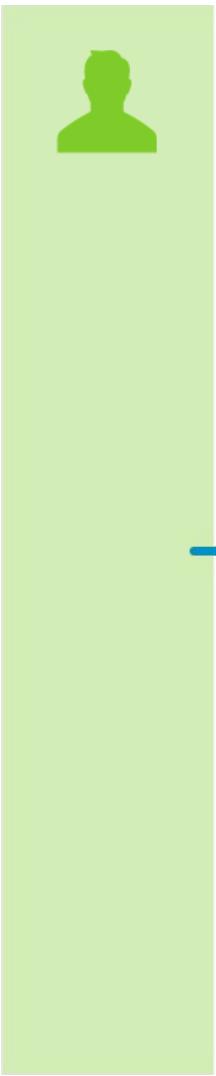
La cadena de bloques





THE BITCOIN TRANSACTION LIFE CYCLE





Criptomoneda vs Token

The diagram consists of two large circles and a central orange rectangle. The circle on the left is light green and contains the text 'CRIPTOMONEDA'. The circle on the right is light blue and contains the text 'TOKEN'. A central orange rectangle is positioned between the two circles.

CRIPTOMONEDA

TOKEN

Criptomoneda

- Tiene su propia blockchain
- Tiene su propio sistema de consenso (Minería)
- Tiene una función específica

Token

- Cualquier activo digitalizado
- Es un Smart Contract
- Funciona sobre una Blockchain

Sistemas de consenso

¿Qué es Minería?





Minería

- Se encarga de mantener la red segura
- Validar todas las transacciones
- Mineros=Notarios, validadores
- Red de nodos y mineros
- Nodo completo vs Minero
- Todos los nodos validan el bloque, pero solo uno gana el "coinbase"



Minería

Proof of Work (PoW)

Prueba de Trabajo

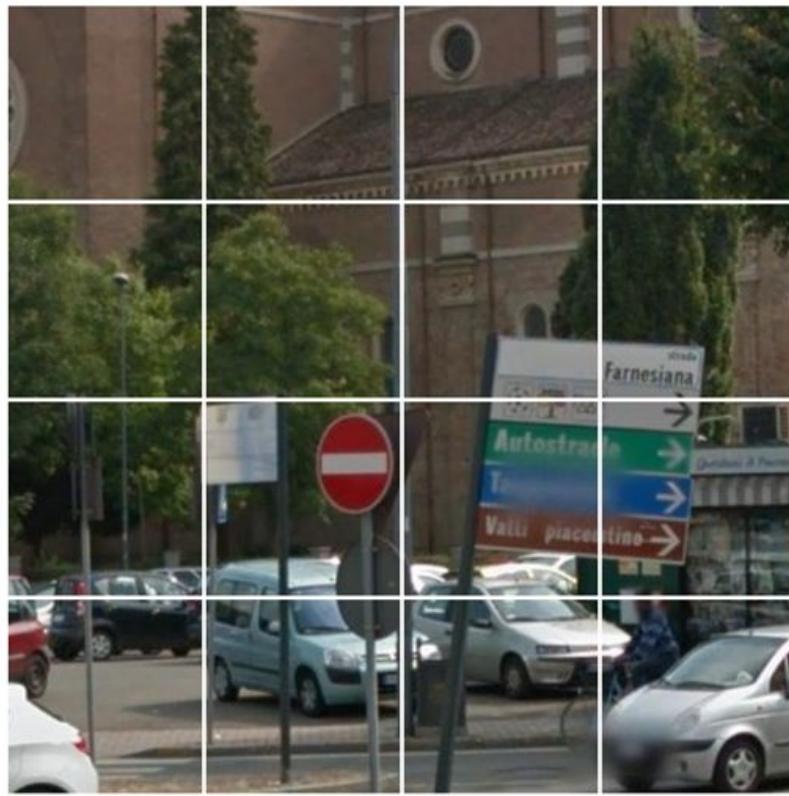
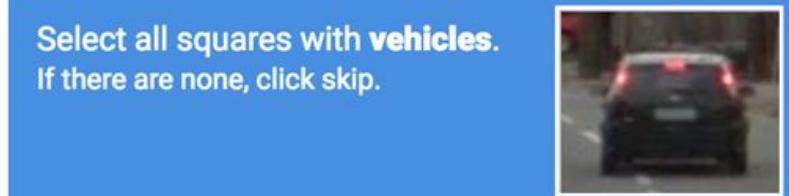
~~KILL CAPTCHA~~

Type the two words:

↻ CAPTCHA ?



Select all squares with vehicles.
If there are none, click skip.



◀ ▶ ⓘ

SKIP

Dificultad

$$\sqrt{25}$$

5

$$\sqrt{81}$$

9

$$\sqrt{900.342.892}$$

?

<https://anders.com/blockchain/hash.html>

<https://insight.bitpay.com/>

Algoritmos

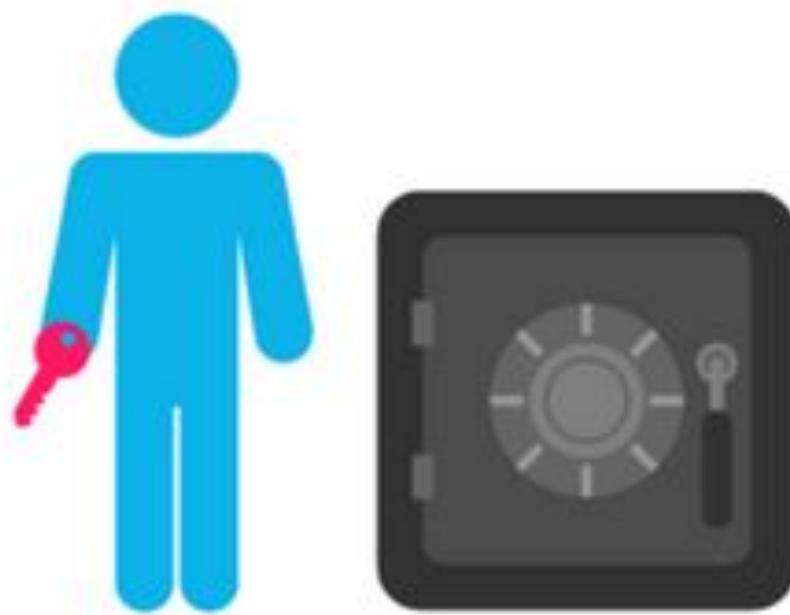
- **SHA256:** Bitcoin, BCash, Digibyte
- **Scrypt:** Litecoin, Verge, Digibyte
- **EThash:** Ethereum, E Classic
- **Equihash:** Zcash, Zencash, Bgold

Minería

Proof of Stake (PoS)

Prueba de Participación

Proof of Stake

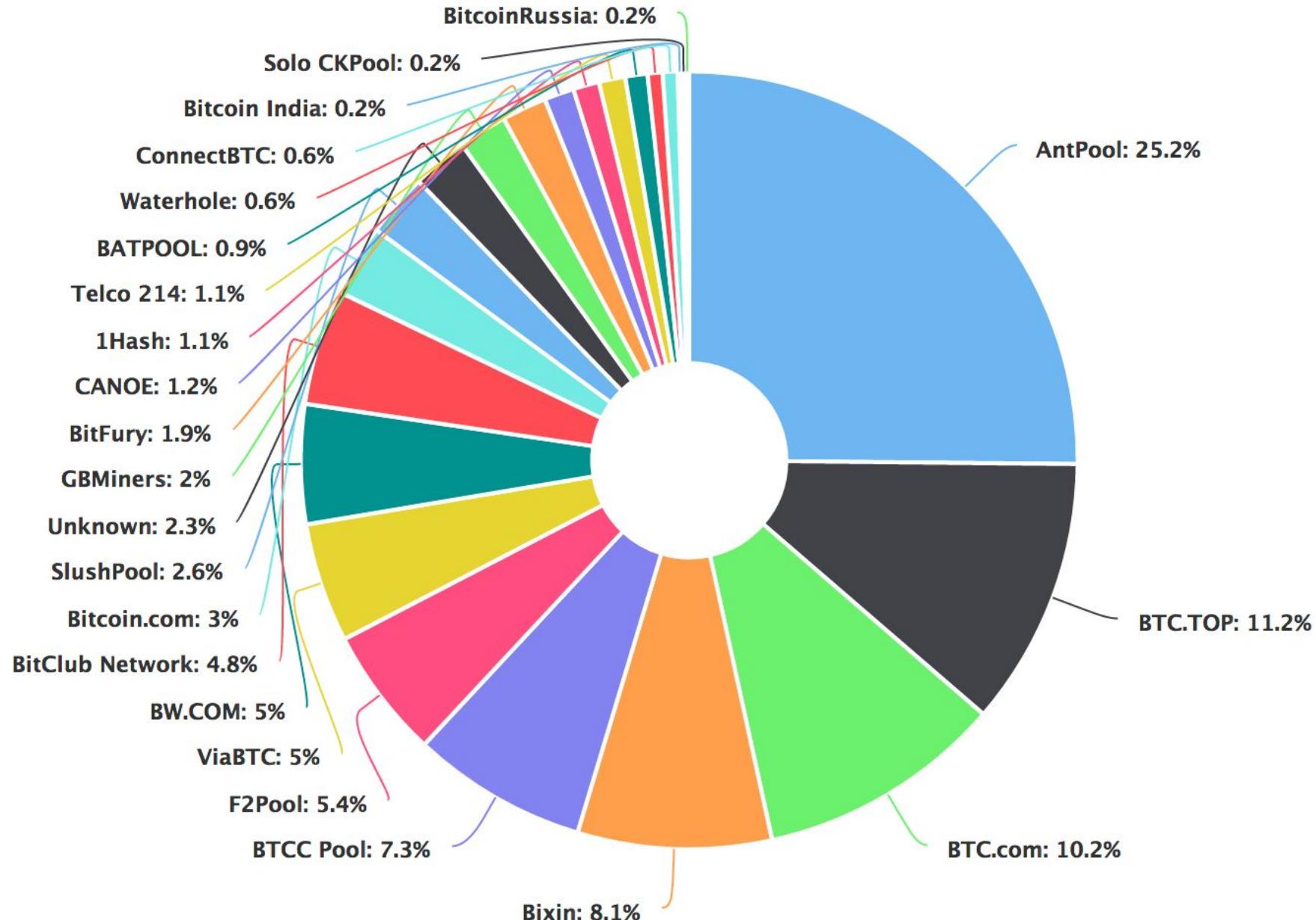


Tipos de Proof of Stake

- PoS: NEO, NXT, PIVX
- DPoS: EOS, ARK, LISK
- PoI: NEM
- Casper: Ethereum
Híbrido PoW/PoS
y más...

Minería

Pools de Minería



Ataque del 51%

Minería

Masternodos

<https://masternodes.pro/statistics>

<https://masternodes.online/>

Desarrollos sobre Blockchain

Desarrollos sobre Blockchain

Qué es una DApp

Decentralized Application

Características de una Dapp

- Descentralizada.
Basada en Blockchain
- Conjunto de smart contracts
- Inmutable
- Código abierto

<https://www.cryptokitties.co/>

<https://fishbank.io/n/?r=1>

<https://www.civic.com/>

<https://status.im/>

<https://golem.network/>

<https://www.civic.com/>

<https://status.im/>

<https://golem.network/>

Desarrollos sobre Blockchain

ICO/DAICO/ITO



ICO

DAICO

ITO

<https://www.launchmyico.com/>

<https://icobox.io/>

<https://www.kickico.com/es/>

Inversiones

Portafolios de Inversión

Javier Trujillo



@javierblockpro



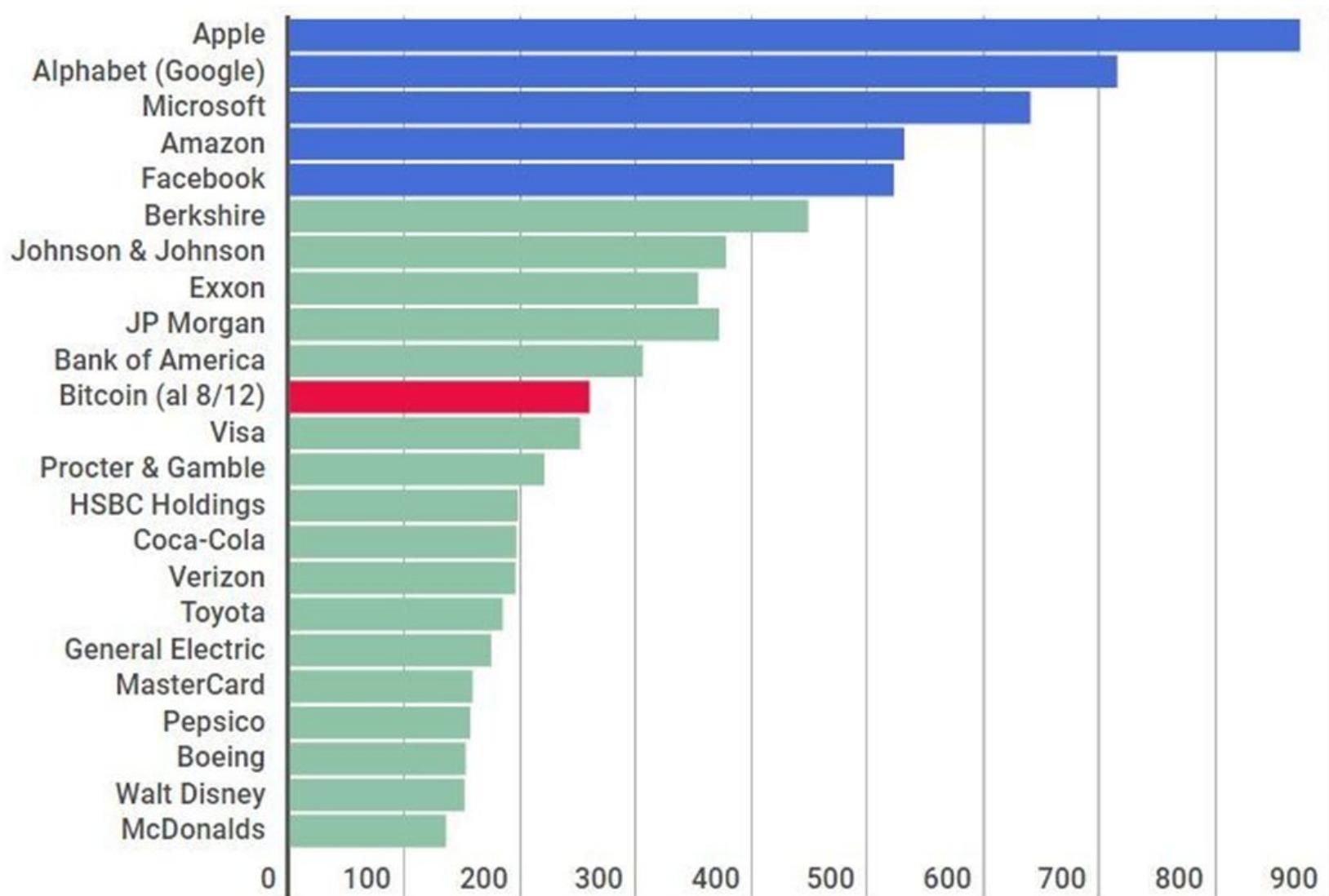
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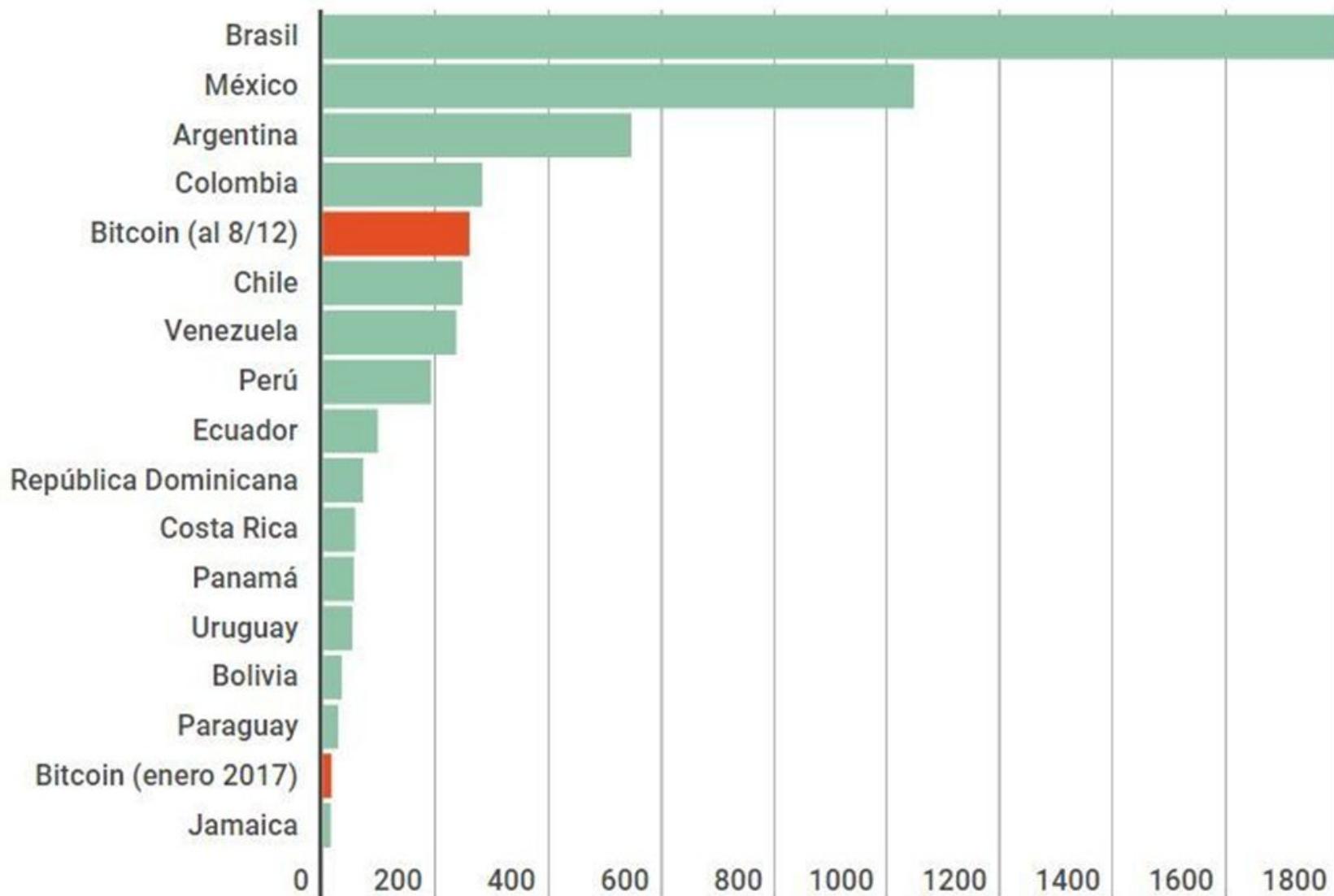
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Oct. 18, 2017, 4:45 AM [🔥 8,049](#)

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CoinmarketCap

<https://www.icoalert.com/>

<https://www.tokendata.io/>

<https://icorating.com/>

Inversiones

HardFork

<https://forks.net/list>

Inversiones

Estafas, pirámides y esquemas Ponzi



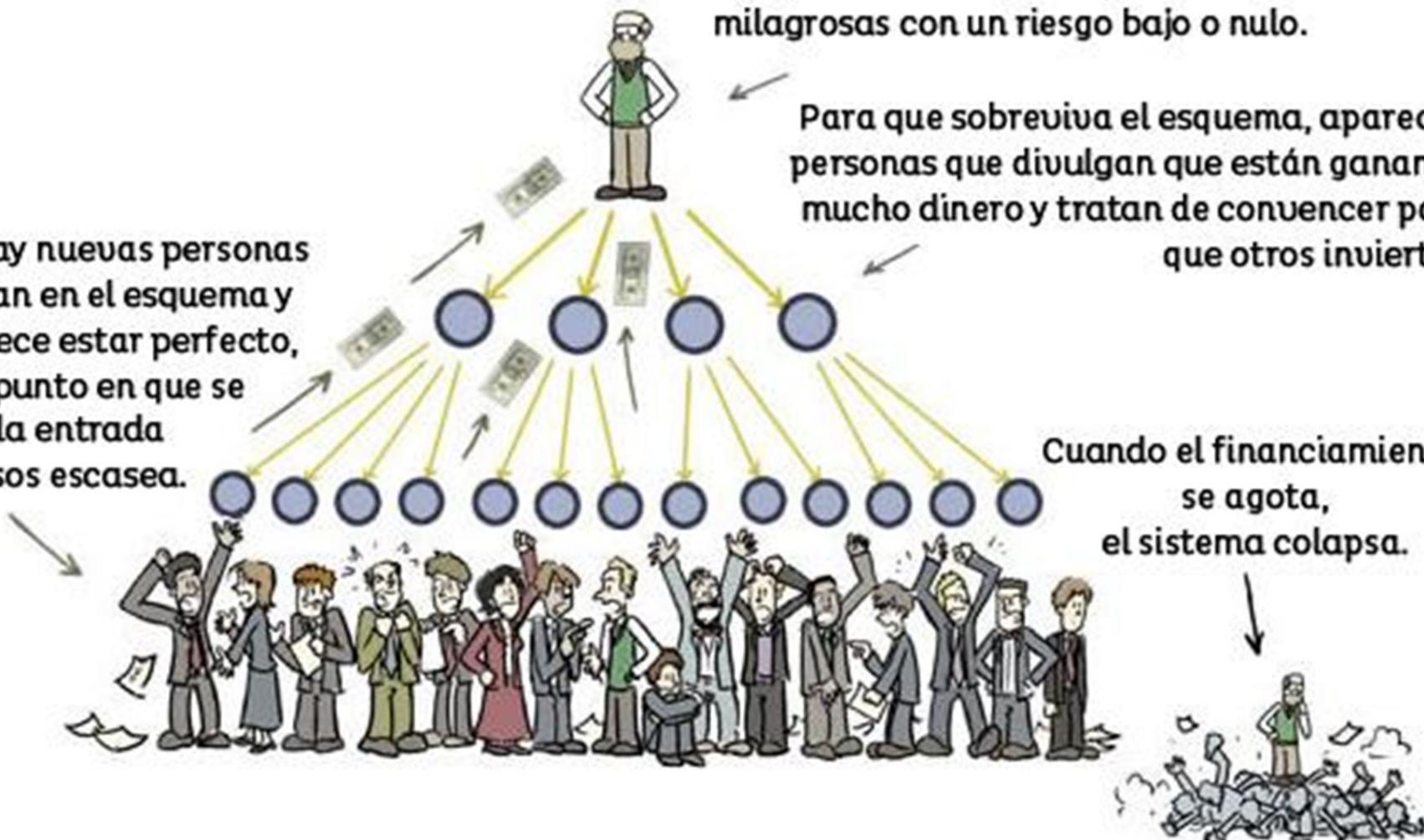
Esquema Ponzi

Si bien hay nuevas personas que entran en el esquema y todo parece estar perfecto, llega un punto en que se satura y la entrada de recursos escasea.

Una persona o empresa promete ganancias milagrosas con un riesgo bajo o nulo.

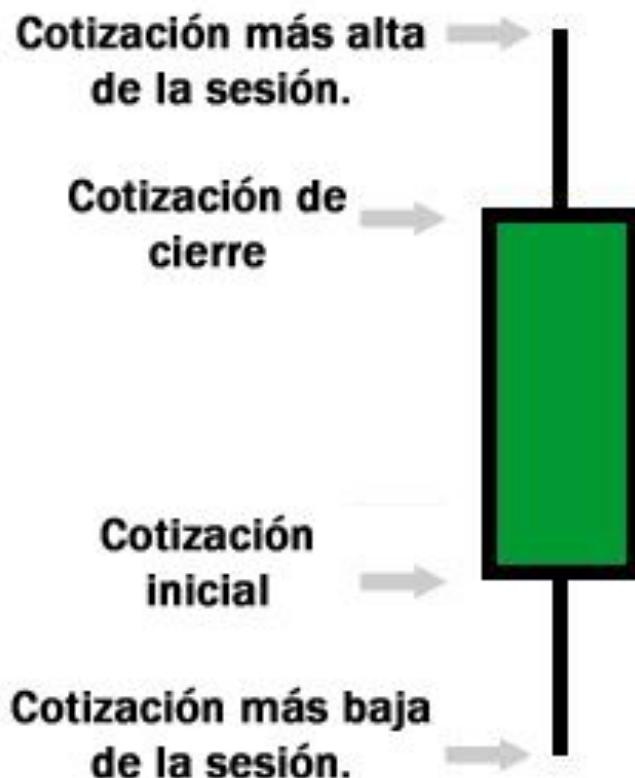
Para que sobreviva el esquema, aparecen personas que divultan que están ganando mucho dinero y tratan de convencer para que otros inviertan.

Cuando el financiamiento se agota, el sistema colapsa.



Reto 6

¿Qué es Trading?



Tipos de Trading

Pump and Dump