

# The Bitcoin Controversy

Thoughts on the  
consequences of the  
philosophical differences  
in the Bitcoin community

Vincent Oislagers - 31 Aug 2017





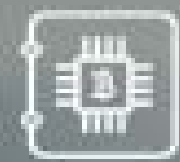








# mikro-bank.no



Mikrobank

[About Mikrobank](#)

[How it works](#)

[Location](#)



## The easiest way to buy Bitcoin in Oslo

Mikrobank makes it easy to buy bitcoin via a vending machine at the Kasbah Hub,

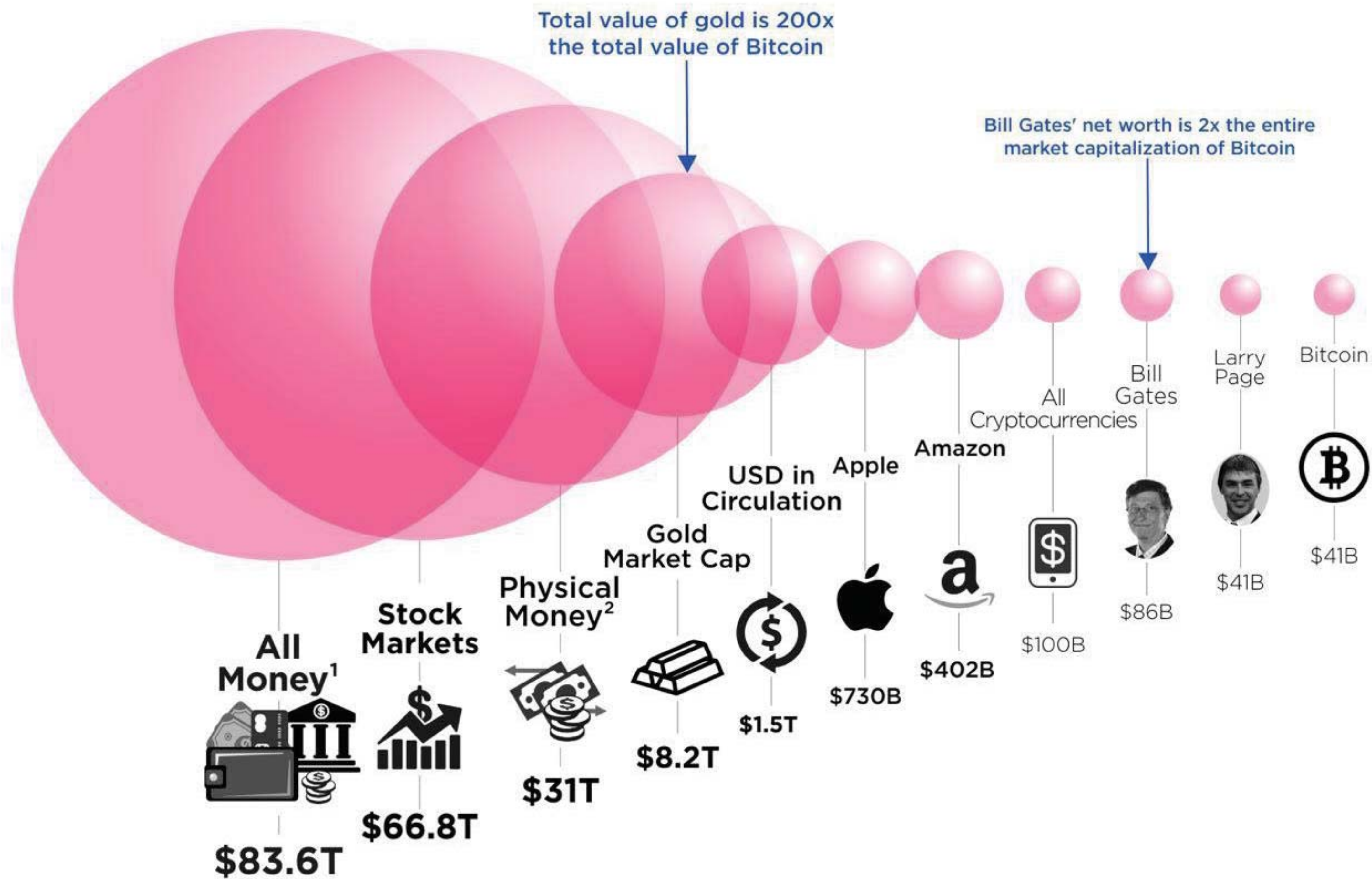


We'll let you know when you can buy bitcoin in your area!

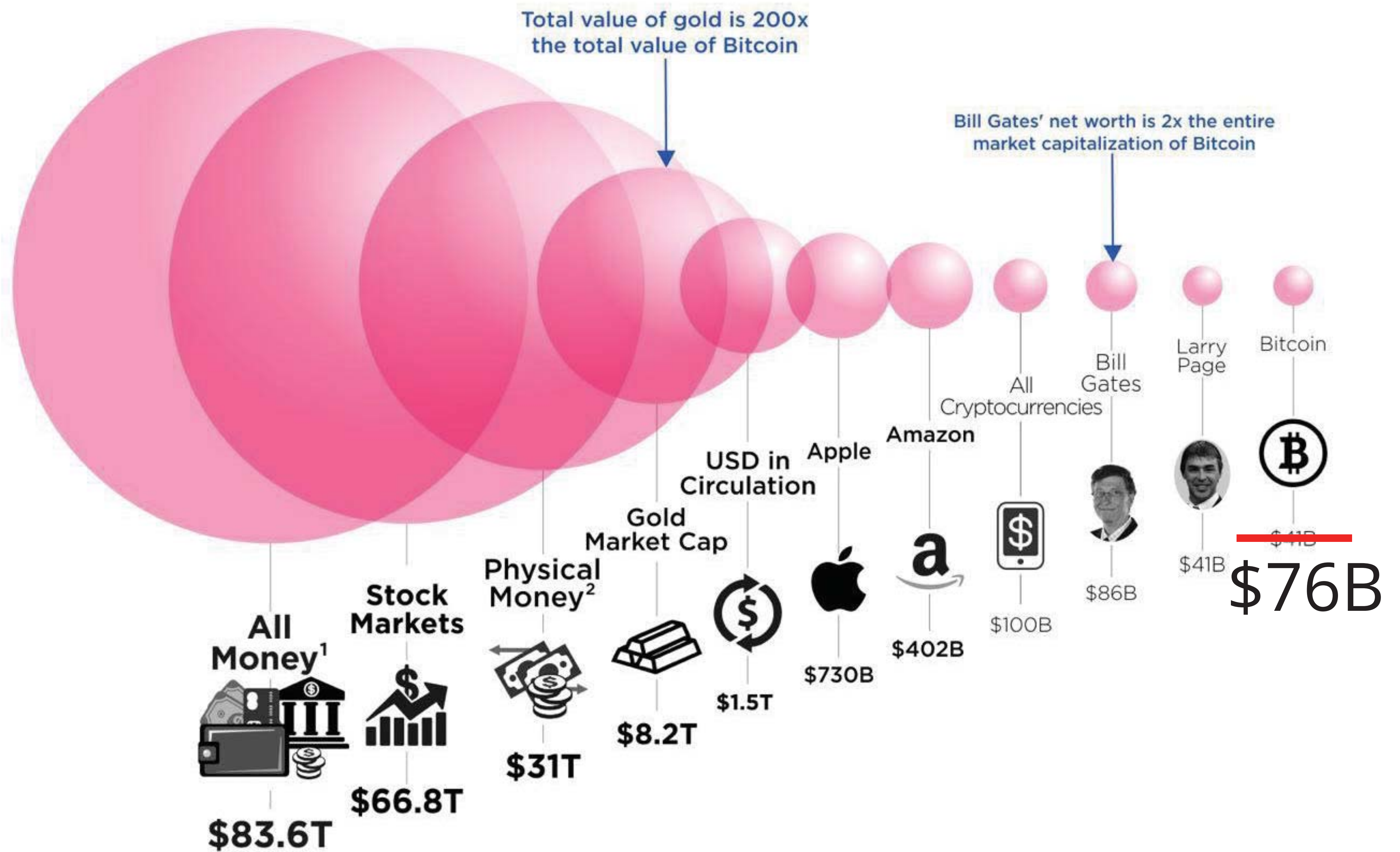
# Agenda

- Current state of affairs
- Reasons people care about Bitcoin
- Bitcoin vs Bitcoin Cash
- Notable past controversial events.
- Questions
- Discussion






Current state of affairs









▲ #	Name	Market Cap	Price	Circulating Supply	Volume (24h)
1	 Bitcoin	\$73,062,861,255	\$4421.40	16,524,825 BTC	\$1,897,910,000
2	 Ethereum	\$31,564,609,802	\$334.94	94,239,595 ETH	\$781,368,000
3	 Bitcoin Cash	\$10,514,136,536	\$635.80	16,536,888 BCH	\$407,500,000
4	 Ripple	\$8,325,598,388	\$0.217130	38,343,841,883 XRP *	\$716,463,000
5	 Litecoin	\$2,720,922,972	\$51.71	52,619,707 LTC	\$201,636,000



**USD** EUR CNY GBP CAD

RUB AUD SEK BRL NZD SGD  
ZAR NOK ILS CHF RON MXN

### USD average price history





[BUY BITCOIN](#)[BUYING GUIDES](#) ▾[MINING GUIDES](#) ▾[WALLET REVIEWS](#) ▾[TOOLS](#) ▾[NEED HELP?](#) ▾

YOU ARE AT: [Home](#) » [Bitcoin Obituaries: Following Bitcoin While it Dies and Goes Up in Price](#)

# Bitcoin Obituaries

Bitcoin has died 154 times

[Obituary Stats](#) | [Submit Obituary](#) | [Obituary Generator](#)

2017



AUGUST 25, 2017

"Here's How Bitcoin Will Collapse" – TheStreet | \$4,205.85

Bitcoin is a gigantic bubble ready to explode, according to Euro Pacific Capital CEO Peter Schiff. While Schiff explained to...

[READ MORE](#)



But what is Bitcoin about?



Bitcoin is a way to send

Trustless & censorship  
resistant transactions



Bitcoin is a way to

own and spend value without having  
to rely on a trusted third party



Why are people putting money  
into this thing called Bitcoin?



# Speculation

# Speculation



**Monday**

*Buy a  
pile  
of gold*



**Wednesday**

*Sell the gold  
and make a  
pile of money*



# Hedging risk in a portfolio of other high risk asset classes

**TABLE 4**  
Correlation Table

	S&P 500	US Bonds	Bitcoin	Gold	US Real Estate	Oil	Emerging Market Currencies
S&P 500		-0.69	0.36	0.48	0.87	0.73	0.83
US Bonds	-0.69		-0.37	0.47	0.57	-0.53	0.52
Bitcoin	0.36	-0.37		-0.33	-0.36	-0.36	0.29
Gold	0.48	0.47	-0.33		0.45	0.52	0.62
US Real Estate	0.87	0.57	-0.36	0.45		0.63	0.74
Oil	0.73	-0.53	-0.36	0.52	0.63		0.63
Emerging Market Currencies	0.83	0.52	0.29	0.62	0.74	0.63	

Low correlation (-0.4 to 0.4) in green, Mid correlation (absolute value 0.4 to 0.666) in white, High correlation (absolute value > 0.666) in red

Numbers in the table were chosen based on the maximum "absolute value" one-year rolling correlation that paired assets displayed since 2011

Source: ARK Investment Management LLC & Coinbase, data sourced from Bloomberg & TradeBlock

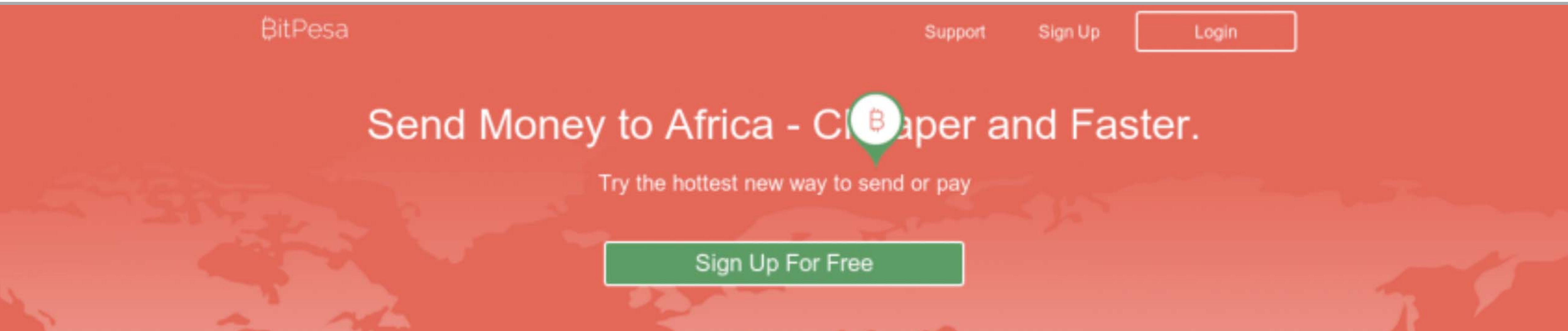


# Economic instability





# Competitive advantages to alternative options



Here's how it works.

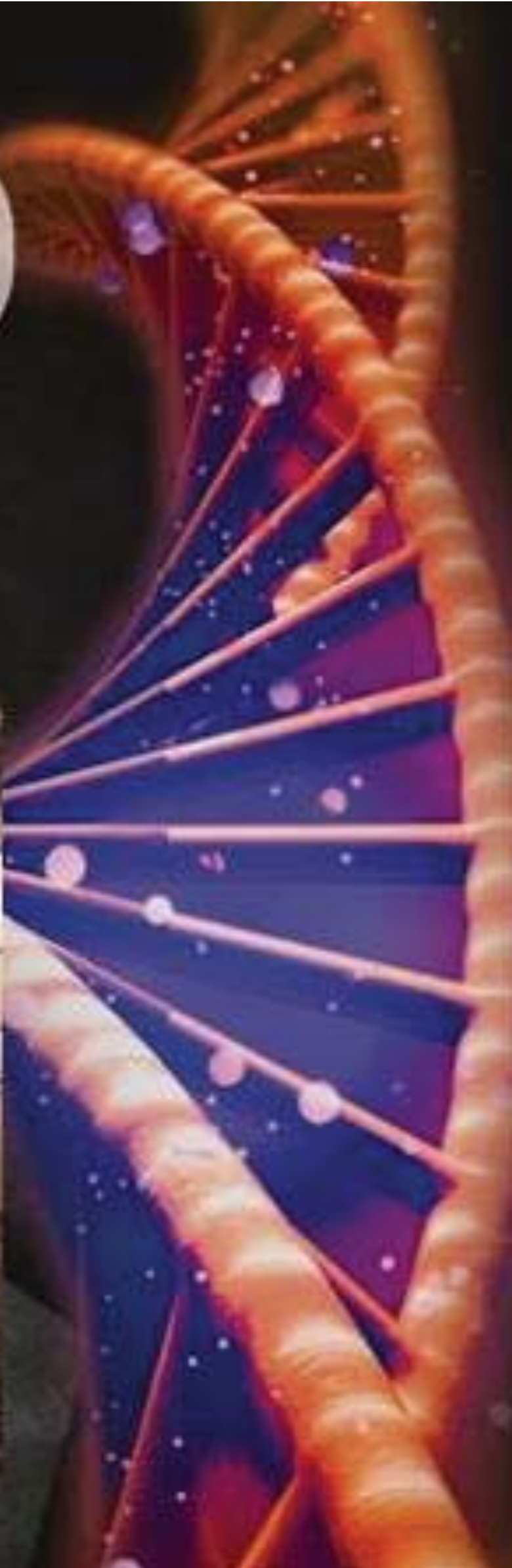




# Political instability



## **DIVISIÓN CONTRA LOS DELITOS INFORMÁTICOS**





# Bitcoin is..

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1. A specific type of distributed network of computers.
2. The software running on these computers.
3. The ecosystem of trade that is enabled by this software.
4. The digital currency that is used for transactions in this ecosystem
5. The consensus mechanism used in the ledger of this software.
6. One unit of account of this digital currency (1 BTC = \$4600)



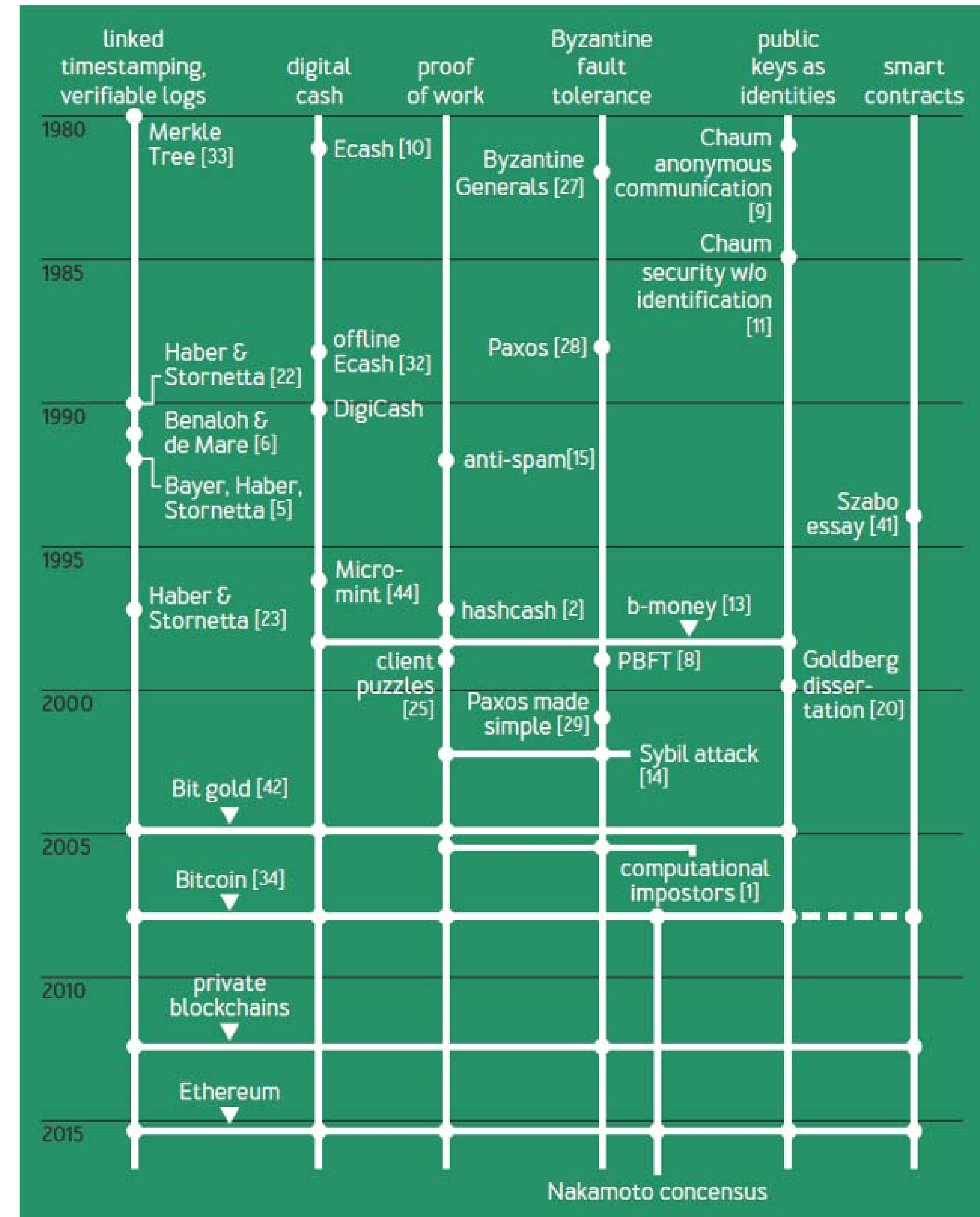
The ideas behind Bitcoin are not new.

Bitcoin combines many  
technical innovations

# Most notable innovations:

- Digital ledger
- Public/private key cryptography
- Linked time-stamping & Merkle trees
- Nakamoto consensus

FIGURE 1: CHRONOLOGY OF KEY IDEAS FOUND IN BITCOIN





Which parties are  
involved in Bitcoin?

# External actors





# External actors



Nerds



Interest groups



Pragmatists



# What do these groups want?





# External actors



**Nerds**

Blockchain businesses

Security researchers & economists

Hackers

Academia

# External actors



## Interest groups

Independent media

Privacy minded individuals

Net neutrality supporters

Activists



# External actors



## Pragmatists

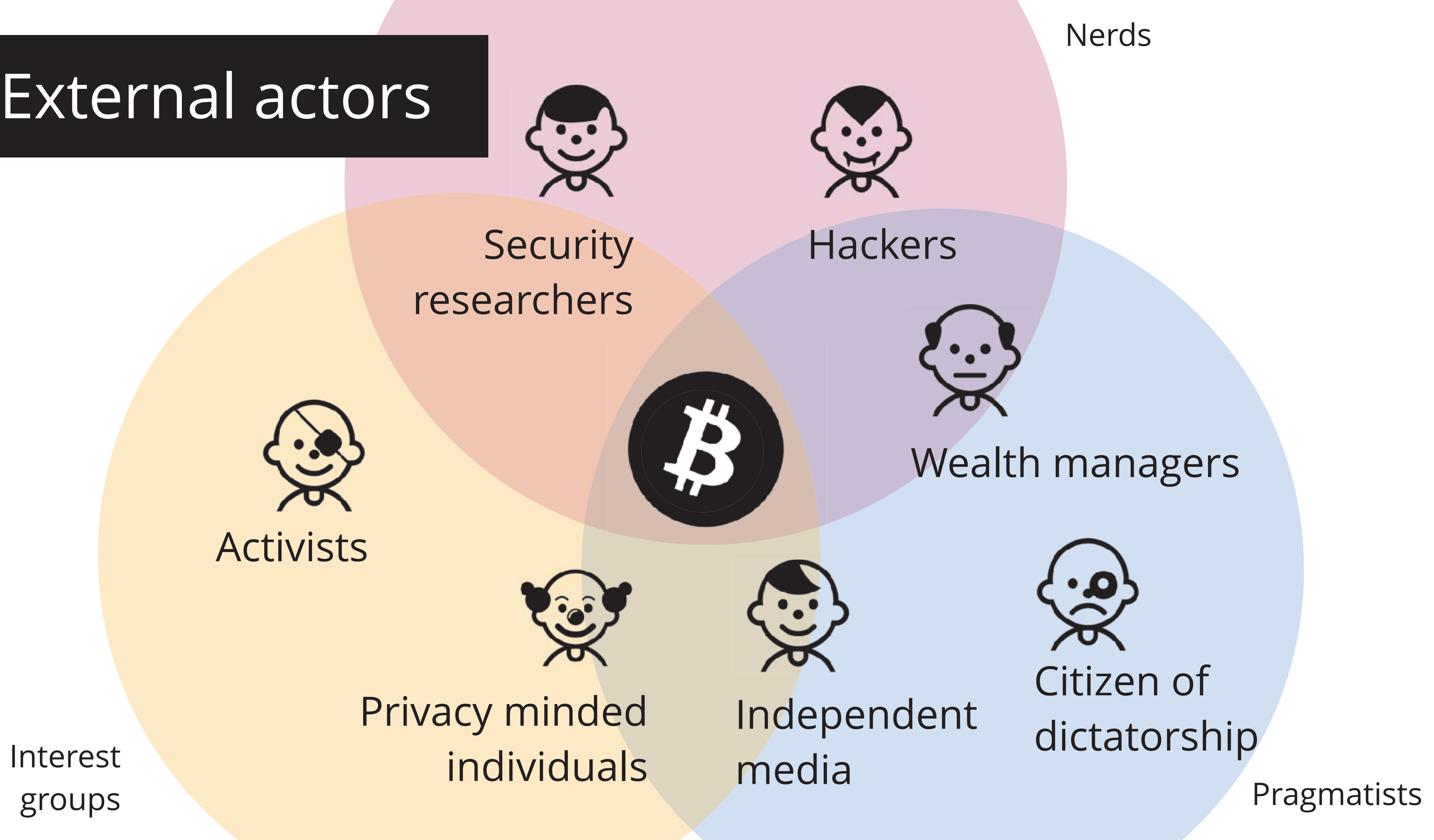
Governments & their citizens

Economic migrants

Wealth managers

Charities

# External actors





# Internal actors



# Internal actors



Bitcoin holders



Miners



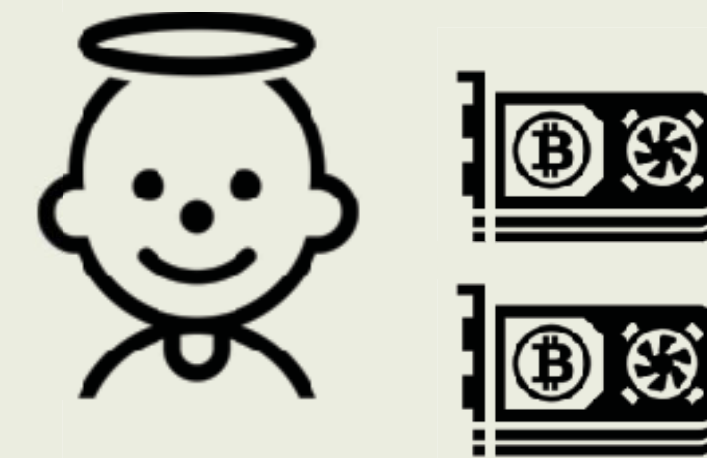
Nodes



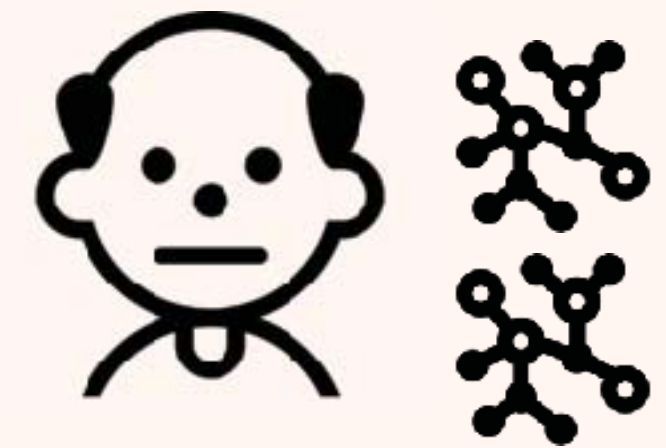
# Internal actors



Bitcoin &  
Bitcoin Cash holders

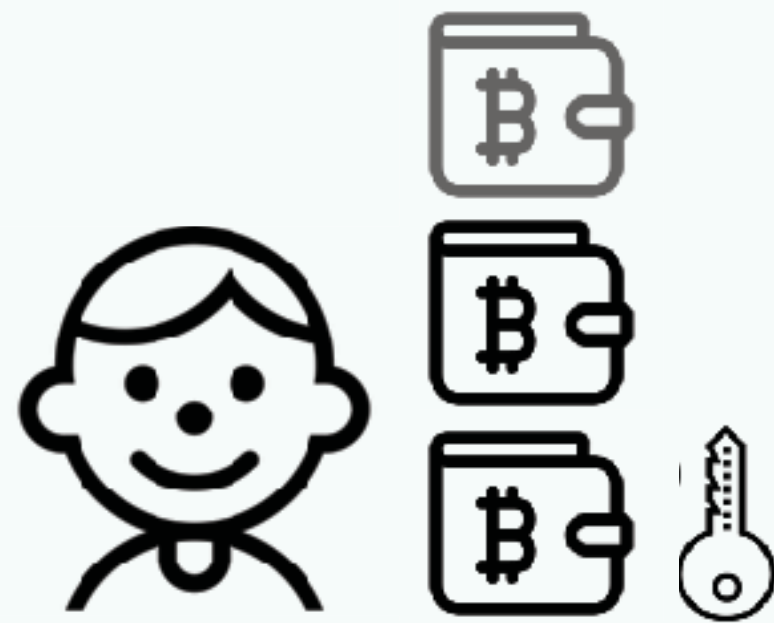


Miners

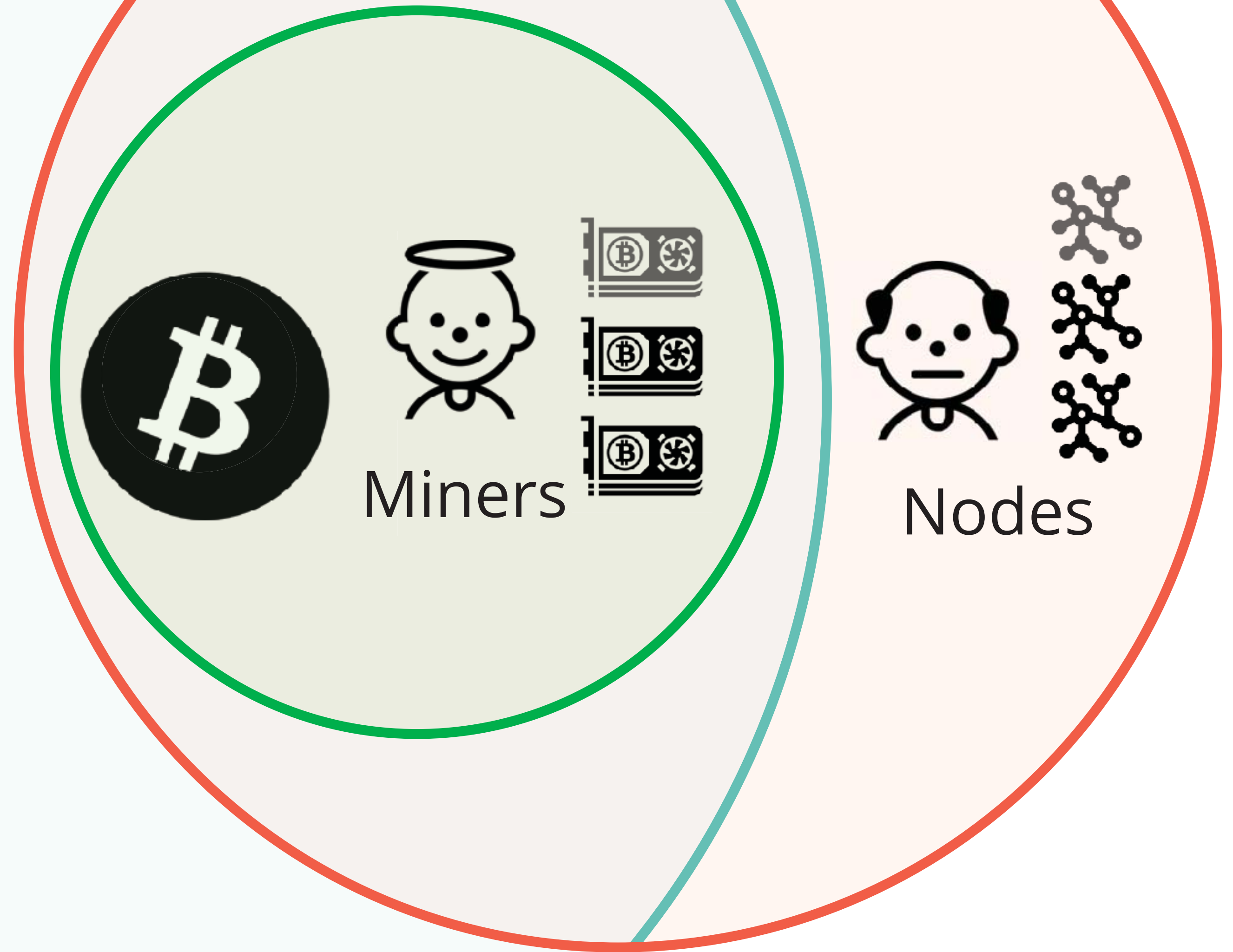


Nodes

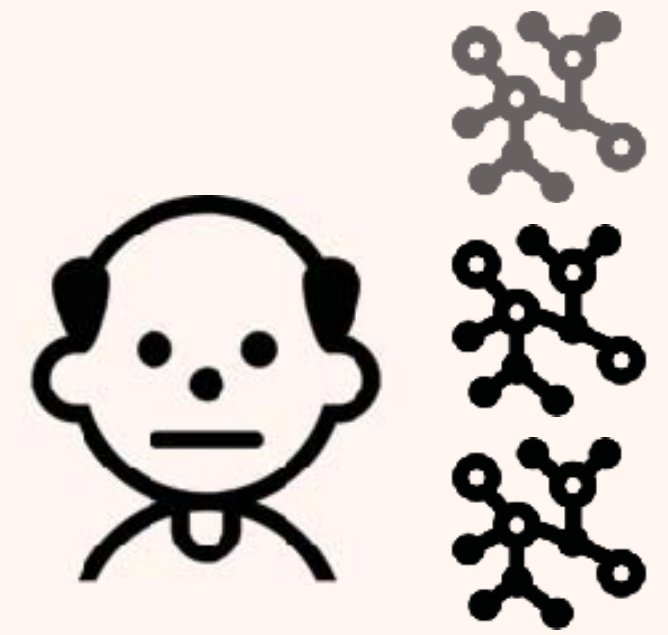
# Internal actors



Bitcoin &  
Bitcoin Cash &  
Bitcoin Segwit2X holders?



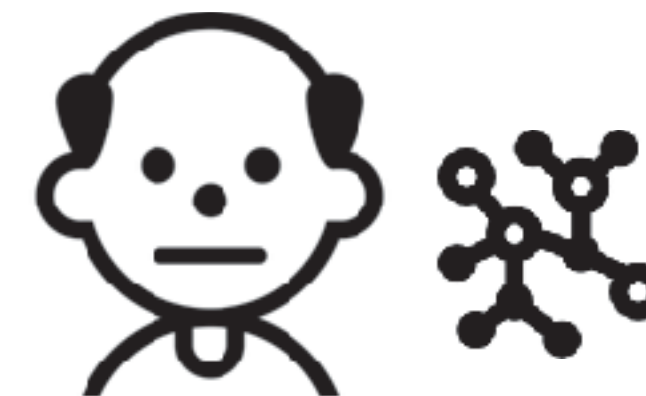
Miners



Nodes



# What do these groups want?



# Internal actors



## Bitcoin holders

Protecting & increasing the value of their bitcoins

Not having to rely on an trusted third party to manage their money

Making bitcoin more useful as a currency

(So they can more easily spend it and it becomes worth more because of the network effect)



# Internal actors



## Miners

Using their hardware to make as much profit as possible

Making sure they make a return on their investment

(Hardware, electricity contracts, other infrastructure)

Securing the network

(to make sure they can keep selling bitcoin at the highest price possible)

# Internal actors



## Nodes

Checking if a transaction is valid without having to wait for miners to confirm it and write it to the blockchain.

(For example to know if a customer paid you or not)

Run by exchanges, service providers, retail businesses

Allows owners to not have to trust the rest of the network.





***bitcoin  
cash***



***bitcoin***

What about the  
*other* Bitcoin?

The hardfork is result of an attempt to solve a problem:

Bitcoin has become slower  
and move expensive to use.



May 2017      **New York agreement (Segwit2X)**





Aug 1st

# Bitcoin Cash Hardfork





Bitcoin & Bitcoin Cash want to achieve the same things.

A fast network that can  
handle many transactions.

But in a different way..

---

## Bitcoin (Core)

Create secondary off-chain settlement layer (called the lightning network), which requires fewer on chain transactions when transaction throughput slows down .

This will reduce network congestion.

## Bitcoin Cash

Increase blocksize (amount of transactions that can be mined per block), when transaction throughput slows down.

This will reduce network congestion.



# Technical differences

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## Bitcoin (Core)

'Small blocks'

Off chain scaling

Slow & expensive

Currently has market support

1 BTC = \$4600 on Aug 31st '17

## Bitcoin Cash

'Big blocks'

On chain scaling

Fast & inexpensive

Currently does not have  
market support

1 BCH = \$577.5 on Aug 31st '17

# Advantages of each approach

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## Bitcoin (Core)

Segwit (Segregated witness), the technology required to run the lightning network is already implemented and running on Litecoin, Viacoin & Syscoin.

Segwit prevents third-party and scriptSig malleability by allowing Bitcoin users to move the malleable parts of the transaction into the *transaction witness*.

## Bitcoin Cash

Increasing the blocksize did immediately lower transaction fees to a few \$ cents per transaction.

Blocksize can be easily increased again in the future if needed.



# Challenges with each approach

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## Bitcoin (Core)

The lightning network is far from being ready to launch while scaling is needed now.

Economic incentives of the lightning network layer are not yet tested to be secure from a game theoretic perspective.

## Bitcoin Cash

Larger blocks will lead to larger blockchain file size and more computing power required to validate blocks (for Nodes)

This will lead to mining and node centralization.

Which Bitcoin will survive?



The chain which succeeds best at:

Increasing transaction speed

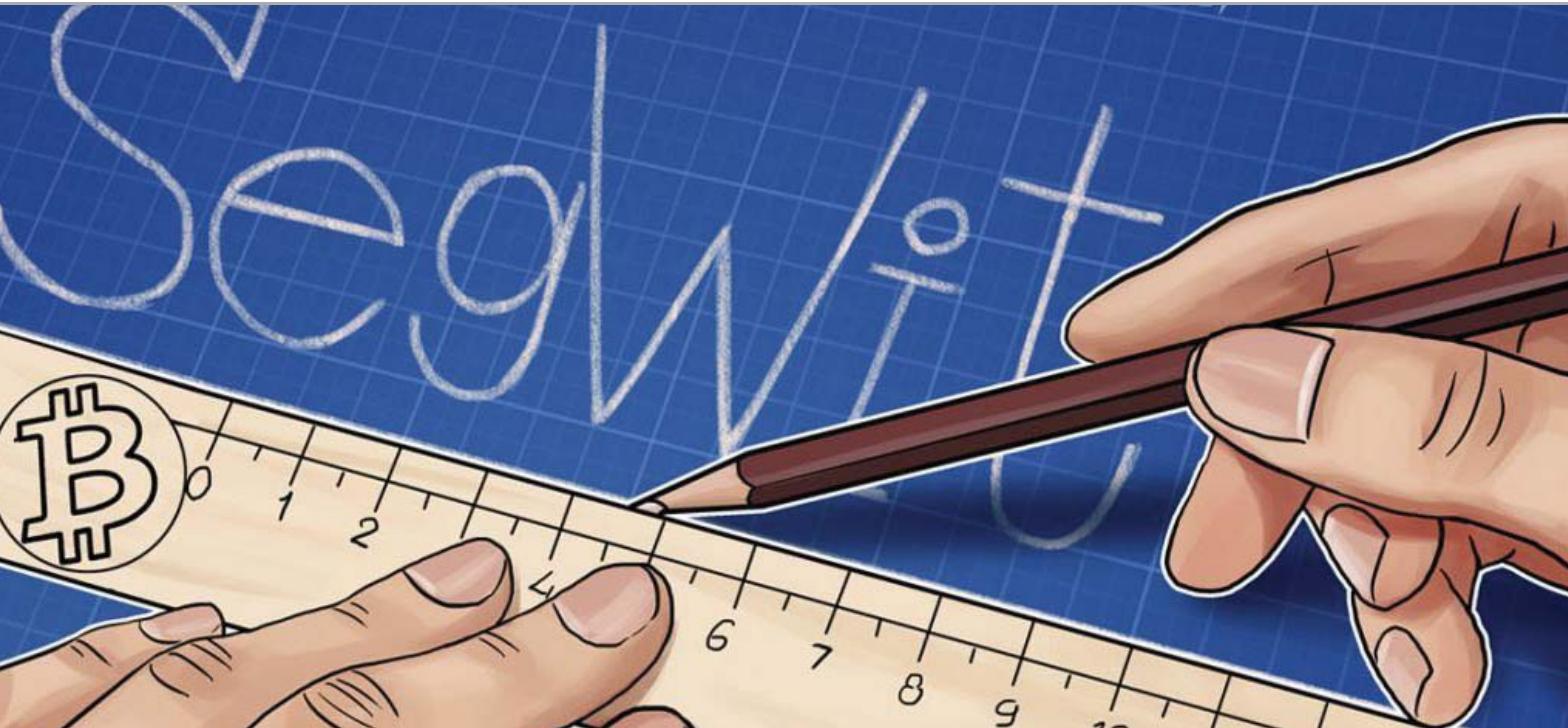
Increasing adoption

Increasing investor confidence

Reducing transaction costs



Aug 23rd **BIP 91: SegWit activation**





Nov 1st

# Segwit2x Hardfork





But the Bitcoin ecosystem is not a democracy.

It's a meritocracy in which  
the market decides value



- Coinholders vote by keeping or selling their Bitcoin (BTC) or Bitcoin Cash (BCH)
- Miners vote by mining BTC or BCH.
- Node operators vote by running BTC or BCH node software.
- Businesses vote by accepting BTC or BCH.

# Notable events in the history of bitcoin



Oct 1, 2008     **Bitcoin Whitepaper is published**

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## Bitcoin: A Peer-to-Peer Electronic Cash System

**Satoshi Nakamoto**

**Abstract.** A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution. Digital signatures provide part of the solution, but the main benefits are lost if a trusted third party is still required to prevent double-spending. We propose a solution to the double-spending problem using a peer-to-peer network.

Feb 12, 2009



# First transaction



A screenshot of the Bitcoin Market website. The top left features the Bitcoin Market logo. The top right has a table header with columns: Pair, Last, Change\*, and Volume\*. Below this is a navigation bar with links: Home, Membership, and Top Orders. The main content area shows a tabbed interface with the first tab selected, displaying 'Last 50 Trades'. A large white text box with the words 'First exchange' is overlaid on the center of the page. Below the text box, the 'Last 50 Trades' table is visible, showing columns for Buyer ID, Seller ID, Trade ID, Price, and Amount. The table contains several rows of trade data.

A screenshot of the Bitcoin Market website. The top left features the Bitcoin logo and the text "BITCOIN MARKET". The top right has a table header with columns: "Pair", "Last", "Change\*", and "Volume\*", with a footnote "\*Based on the last 24 hours". Below the header is a navigation bar with "Home", "Membership", and "Top Orders" buttons. A large white text box with the text "First exchange" is centered over the page. Below the navigation bar, there are tabs for different trading pairs: "BMBTC/BMUSD", "BMBTC/B...", "BMBTC/B...", "BMBTC/B...", "BMBTC/B...", "BMBTC/B...", and "BMBTC/PXGAU". The "BMBTC/BMUSD" tab is selected. Below the tabs, the section "Last 50 Trades" is visible, showing a table with columns: "Buyer ID", "Seller ID", "Trade ID", "Price", and "Amount". The table contains five rows of trade data.

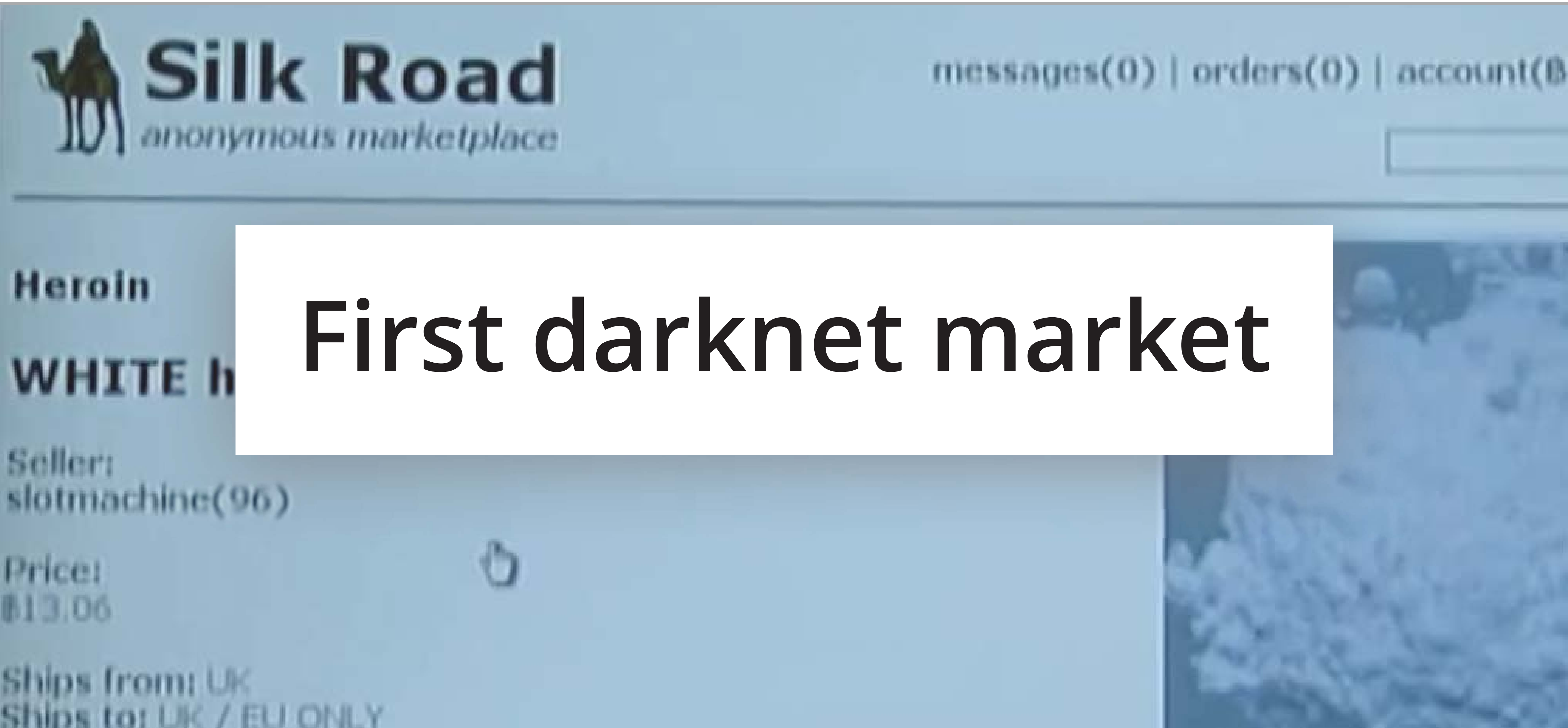
May 22, 2010

A photograph of two pizzas in a white cardboard box. The pizzas are topped with melted cheese, sliced pepperoni, black olives, and green bell peppers. The text "First purchase using Bitcoin" is overlaid in a white box in the center of the image.

**First purchase using Bitcoin**



Early 2011



First darknet market

May 2011



**First merchant service  
provider opens**



May 22, 2010



# First purchase using Bitcoin

Late 2013

# First Bitcoin hype





Oct 2, 2013

The screenshot shows the Silk Road anonymous market website. At the top left is the Silk Road logo with a camel and rider, and the text "Silk Road anonymous market". To the right of the logo are links for "messages 0", "orders 0", and "account \$0.00". Further right is a search bar with a "Go" button. On the far right, there is a greeting "Hi, [redacted]" with a "logout" link and a shopping cart icon showing "0" items.

Below the header, on the left, is a "Shop by Category" sidebar listing various items and their counts: Drugs (7,079), Opioids (512), Prescription (241), IV/IM, Heroin (1), Opium (2), Cannabis (1), Dissociative, Ecstasy (57), Other (422), Precursors, Prescription (1,768), Psychedelics (698), Stimulants (881), Apparel (191), Art (133), Books (1,283), Collectibles (5), Computer equipment (52), Custom Orders (74), Digital goods (458), and Drug paraphernalia (172).

Below the sidebar is a "sort by: newest" dropdown menu, a "Domestic only" checkbox, and an "update" button.

The main content area displays three product listings:

- Product 1:** A molecular structure image. Price: **\$17.36**. Button: "add to cart".
- Product 2:** A chemical structure image. Title: "European Codeine 20mg/20 pills". Seller: "FollowMe(100)". Ships from: "Spain". Price: **\$1.30**. Button: "add to cart".
- Product 3:** A photograph of a green pill. Title: "OXYCONTIN 80MG - OP 80 Purdue plus EXTRA GIFTS". Price: **\$3.25**. Button: "add to cart".

# First asset seizure



# Oct 2, 2013      SilkRoad 1 seizure

The screenshot shows the Silk Road anonymous market website. At the top left is the logo featuring a green camel and rider, with the text "Silk Road" and "anonymous market" below it. To the right of the logo, the navigation bar includes "messages 0", "orders 0", and "account \$0.00". Further right, it says "a few words from the Dread Pirate Roberts" with a small icon of a pirate. Below this, there is a "Hi, [redacted]" greeting, a "logout" link, and a shopping cart icon with "0" items. A search bar with a "Go" button is also present. On the left side, a "Shop by Category" menu lists various items: Drugs (7,079), Opioids (512), Prescription (241), IV/IM (14), Heroin (121), Opium (21), Cannabis (1,678), Dissociatives (128), Ecstasy (579), Other (422), Precursors (44), Prescription (1,768), Psychedelics (698), Stimulants (881), Apparel (191), Art (133), Books (1,283), Collectibles (5), Computer equipment (52), Custom Orders (74), Digital goods (458), and Drug paraphernalia (172). The main content area displays a list of products. A large white box is overlaid on the center of the page, containing the text "32000 BTC" in orange and "\$ 144 M" in black. The product list includes items like "x 40mg -" priced at "\$17.36", "ills" priced at "\$1.30", and "OXYCONTIN 80MG - OP 80 Purdue plus EXTRA GIFTS" priced at "\$3.25". Each product entry includes an image, a description, and an "add to cart" button.

**Silk Road**  
anonymous market

messages 0 | orders 0 | account \$0.00

a few words from the Dread Pirate Roberts

Hi, [redacted] [logout](#)

Search  [Go](#)

Shop by Category

- Drugs 7,079
  - Opioids 512
    - Prescription 241
      - IV/IM 14
      - Heroin 121
      - Opium 21
    - Cannabis 1,678
    - Dissociatives 128
    - Ecstasy 579
    - Other 422
    - Precursors 44
    - Prescription 1,768
    - Psychedelics 698
    - Stimulants 881
  - Apparel 191
  - Art 133
  - Books 1,283
  - Collectibles 5
  - Computer equipment 52
  - Custom Orders 74
  - Digital goods 458
  - Drug paraphernalia 172

sort by: [new](#)

**32000 BTC**

**\$ 144 M**


x 40mg -  
\$17.36  
add to cart

ills  
\$1.30  
add to cart

OXYCONTIN 80MG - OP 80 Purdue  
plus EXTRA GIFTS  
\$3.25  
add to cart



Dec 2013



Sheep

AccountOrdersMessagesGalleryForumHelpLogout

Welcome whywhywhyAccount: 0.00000000BOrders: 0Messages: 0

Drugs (344)

Services (30)

Data (99)

Weapons (3)

Weight loss (4)

Collectables (2)

Jewelry (11)

Metals, Stones (4)

Others (13)


Tobacco (5)

Counterfeits (9)

Alcohol (0)

eBooks (141)

Sport supplements (0)



Shipping!!!

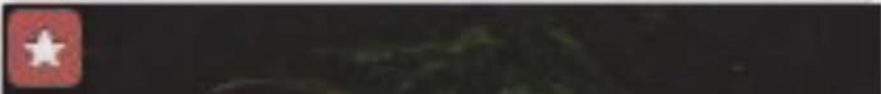
Seller: dicknack(100)

Ship from: United States of America

Ship to: United States of America

83.04 USD

Detail




Ship from: India

Ship to: Worldwide

18.68 USD

Detail



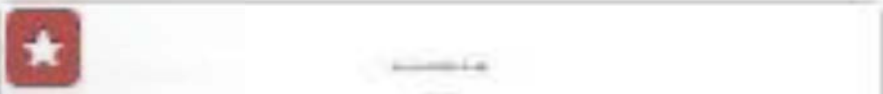
Seller: jeremymathieu(100)

Ship from: Worldwide

Ship to: Worldwide

20.28 USD

Detail



CAPTAIN DAVE's SURVIVAL GUIDE

Seller: dicknack(100)

Ship from: Worldwide


Ship to: Worldwide


1.04 USD


Detail


Rates

USD\$ 115.39










First mayor theft



# Dec 2013 Sheep Marketplace theft

Sheep

AccountOrdersMessagesGalleryForumHelp

Logout

Welcome whywhywhyAccount: 0.00000000 BOrders: 0Messages: 0

ItemSearch

Drugs (344)

Services (30)

Data (99)

Weapons (3)

Weight loss (4)

Collectables (2)

Jewelry (11)

Metals, Stones (4)

Others (13)


Tobacco (5)

Counterfeits (9)

Alcohol (0)

eBooks (141)

Sport supplements (0)




20 Liter - Formaldehyde  
CAS # 50-00-0-  
Shipping!!!

Seller: dicknack(100)  
Ship from: United States of America  
Ship to: United States of America

83.04 USDDetail

Ship to: Worldwide

18.68 USDDetail




Snorter

Seller: jeremymathieu(100)  
Ship from: Worldwide  
Ship to: Worldwide

20.28 USDDetail

Ship from: Worldwide  
Ship to: Worldwide

20.28 USDDetail



CAPTAIN DAVE's SURVIVAL GUIDE

Seller: dicknack(100)  
Ship from: Worldwide  
Ship to: Worldwide


1.04 USDDetail

Ship to: Worldwide


1.04 USDDetail

Rates


USD\$ 115.39




CONCERTA M  
36 mg



CONCERTA M  
36 mg







Feb 2014

# First mayor hack



# Feb 2014 Mt. Gox hack





Dec 11, 2014   **Microsoft starts accepting Bitcoin**

**First major company  
accepts bitcoin**




Aug 2, 2016

→ ↺

Secure | https://www.bitfinex.com

☆



BTC/USD  
4,548.6

ETH/USD  
377.90

BCH/USD  
569.08

BCH/ETH  
1.5138

OMG/USD  
10.645

OMG/ETH  
0.028343

IOTA/USD  
0.85750

IOTA/ETH  
0.0023095

LTC/USD  
62.849

XMR/USD  
126.58

XRP/USD  
0.23261

DASH/USD  
365.38

ETC/USD  
15.853

EOS/USD  
1.2791

EOS/ETH  
0.0033760

ZEC/USD  
271.45

SAN/USD  
0.47990

SAN/ETH  
0.0012899

BCC/USD  
3,999.0

BCU/USD  
557.00

\$444,9

24 HOUR

Second mayor hack

,913,855

VOLUME

BITFINEX PLATFORM FEATURES

Bitfinex is a full-featured spot trading platform for the major cryptocurrencies such as Bitcoin, Ethereum, Bcash, OmiseGO, Iota, Litecoin, Monero, Ripple, Dash, Ethereum Classic, EOS, Zcash, and Santiment. The platform offers leveraged margin trading through our peer-to-peer funding market.

Exchange

Margin Trading



# Aug 2, 2016      Bitfinex hack

→ ↺ 🔒 Secure | https://www.bitfinex.com ☆ 🌐 📧 📧 📧 📧 ⚡ ⓘ

BTC/USD  
4,548.6

ETH/USD  
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BCH/USD  
569.08

BCH/ETH  
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OMG/USD  
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271.45

SAN/USD  
0.47990

SAN/ETH  
0.0012899

BCC/USD  
3,999.0

BCU/USD  
557.00

\$444,973,524

24 HOUR VOLUME

119000 BTC

\$ 292.5 M

\$13,450,913,855

30 DAY VOLUME

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Exchange

Margin Trading



July 2017    **Bitcoin available in Norway via an ATM.**

A photograph of a person in a blue shirt interacting with a yellow Bitcoin ATM. The person is holding a 500 Norwegian Krone banknote. The ATM has a screen, a QR code scanner, and a coin slot. The word 'bitcoin' is printed on the machine, along with a Bitcoin logo. A white text box is overlaid on the image.

# First Bitcoin ATM in Norway



History Of Bitcoin

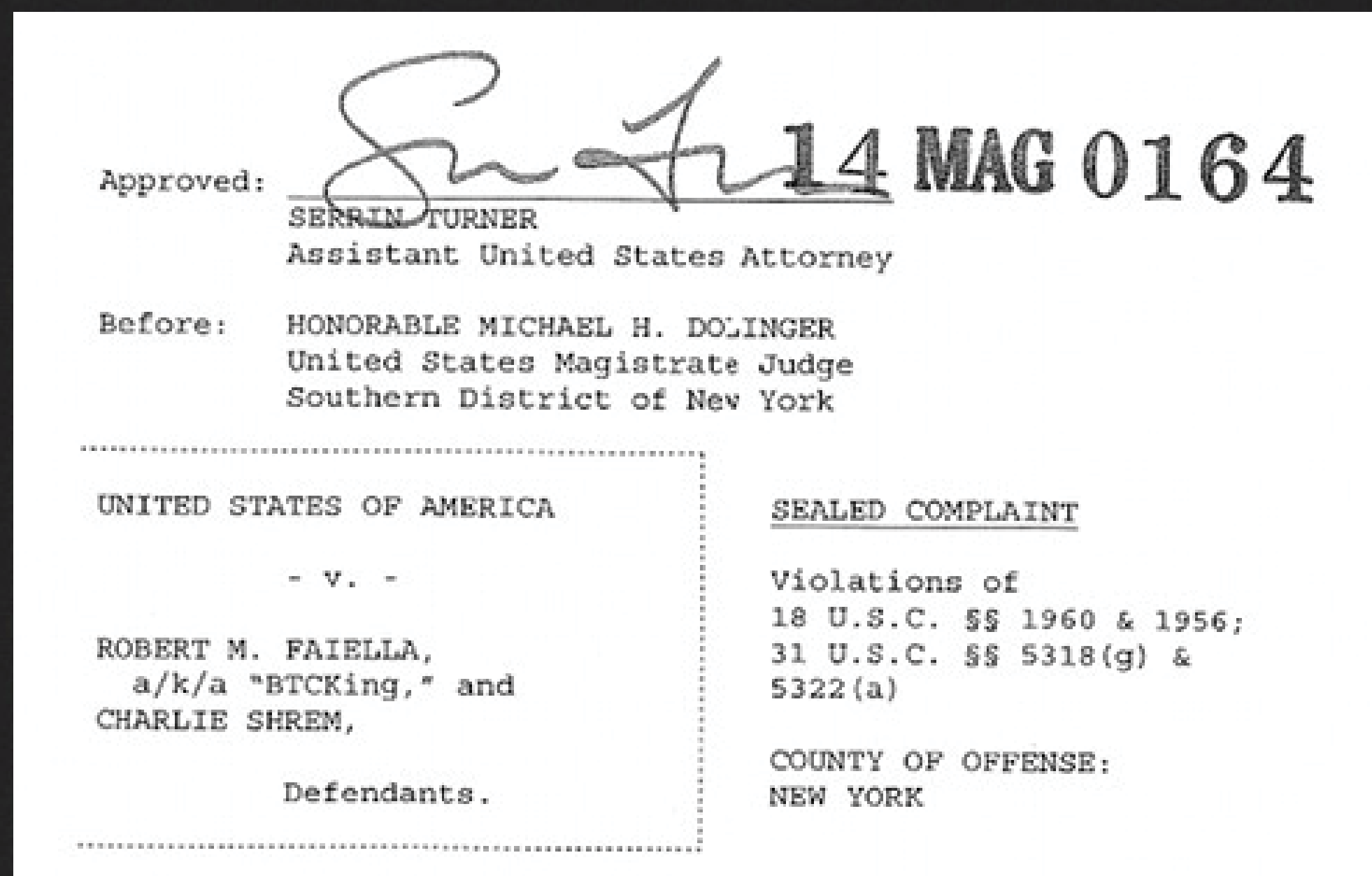
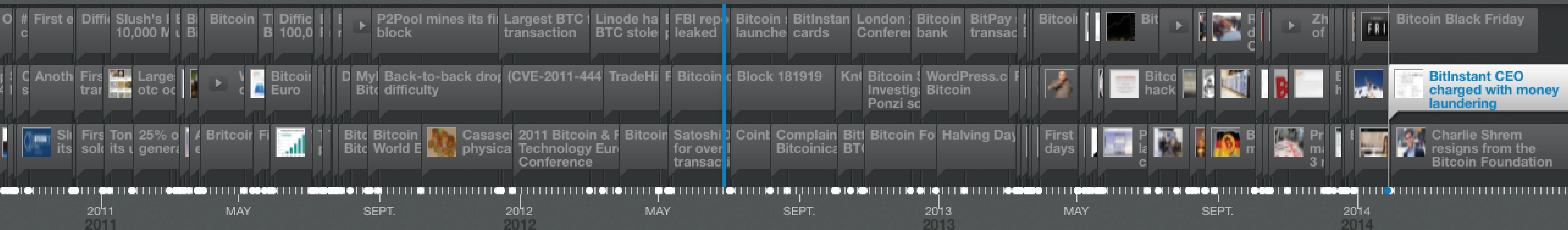
Embed this on your site

Get updates

January 26, 2014

## BitInstant CEO charged with money laundering

Charlie Shrem, CEO of BitInstant is arrested over allegations of money laundering in connection with Silk Road. He is arrested at JFK airport for charges filed in a Manhattan federal court.

[source](#)JANUARY  
28, 2014Charlie Shrem  
resigns from the  
Bitcoin  
Foundation

# Too much things to talk about!

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51% Attacks

Ransomware

Ethereum Hardfork

Dao Hack

Monetary policy

User Activated Softfork

Other darknet market hacks

Censorship

'ICO's

Anonymous currencies



# Mikrobank is looking for business partners

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## Contact

[firmapost@mikro-bank.no](mailto:firmapost@mikro-bank.no)

Or approach me after the talk.

Thanks for your interest!