Bitcoin

the digital currency

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Would Rothbard call it money?

content

Introduction

Example

Features

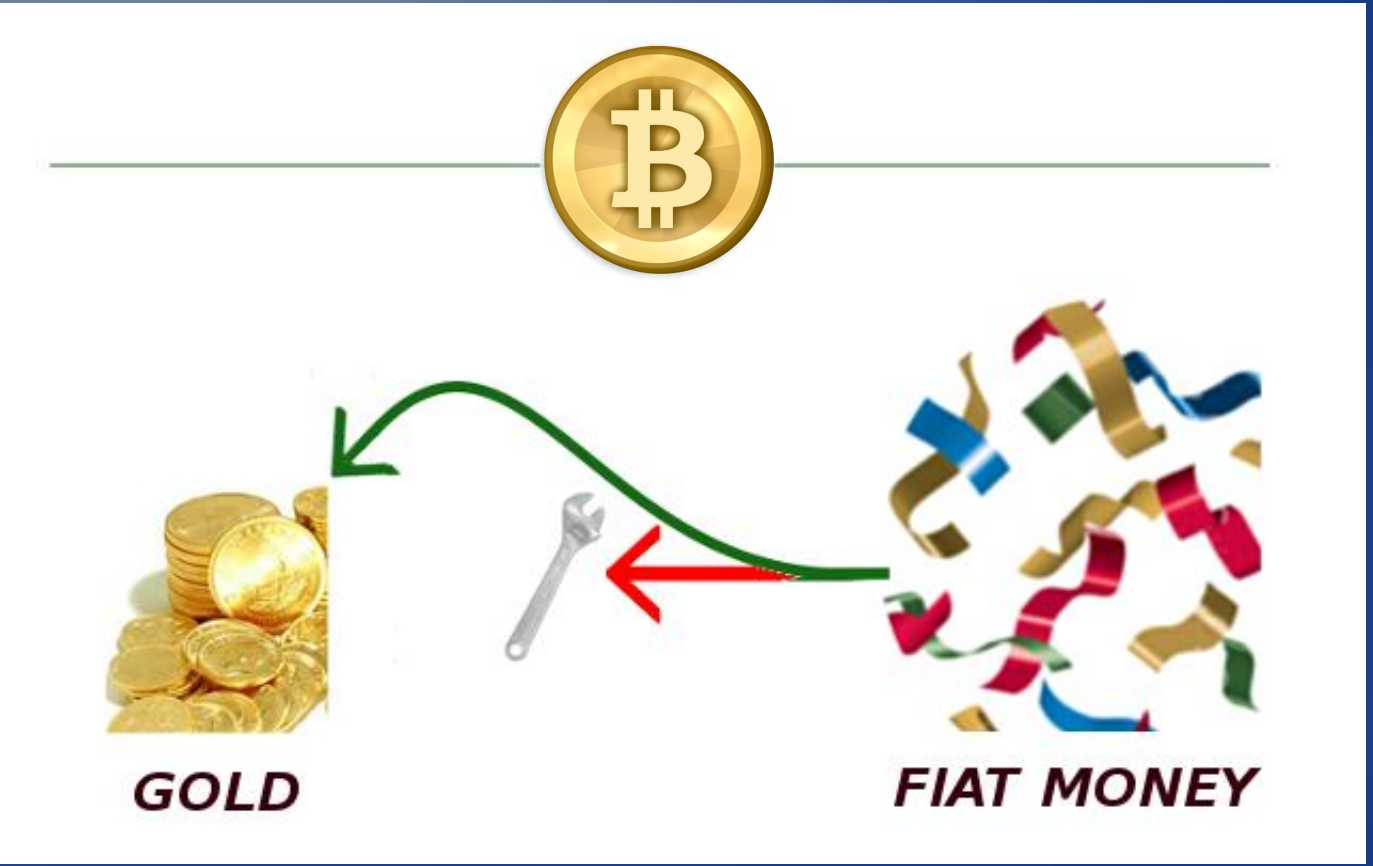
Bitcoin vs. Fiat money

Bitcoin vs. Gold

Viability as Money

What is Bitcoin anyway?

a strange beast somewhere between gold and fiat

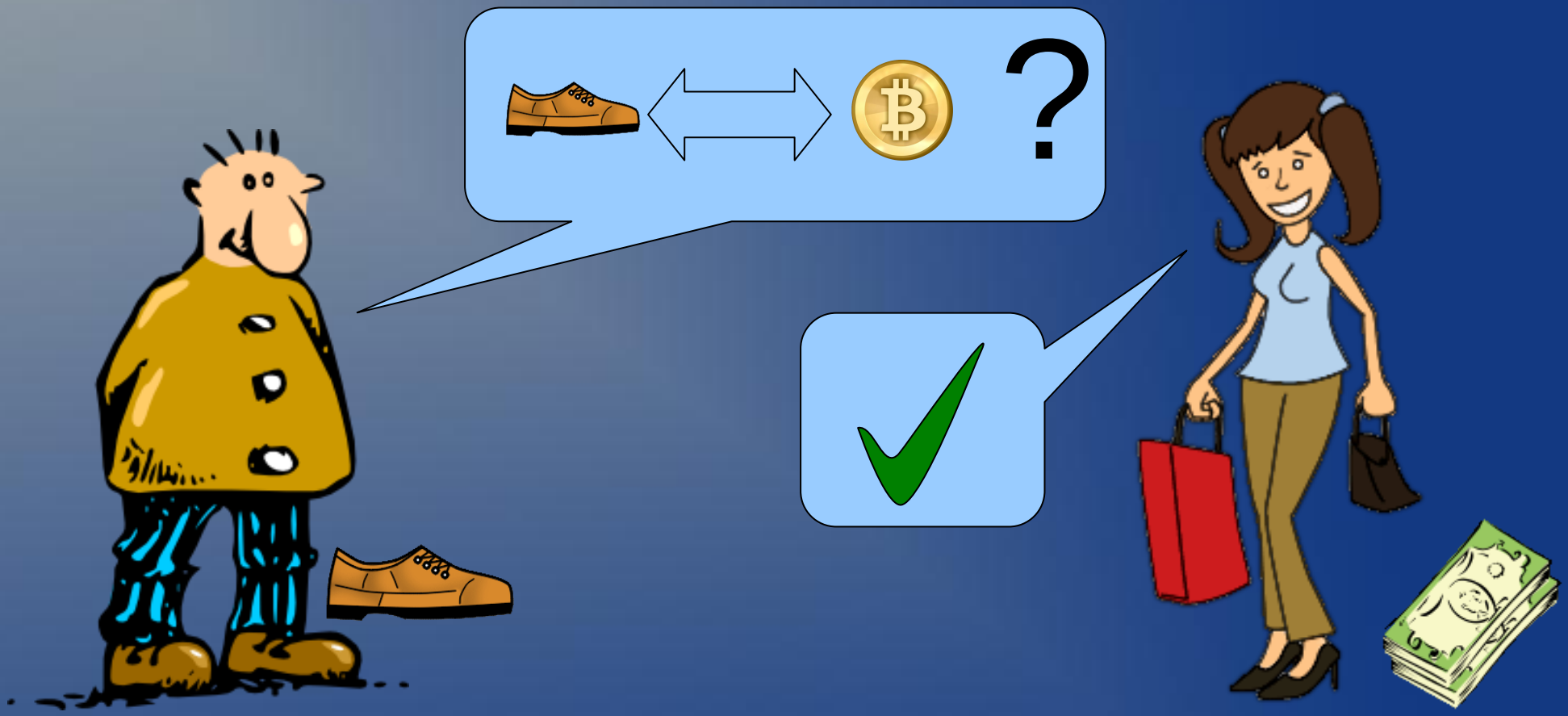


What is Bitcoin anyway?

a strange beast somewhere between gold and fiat

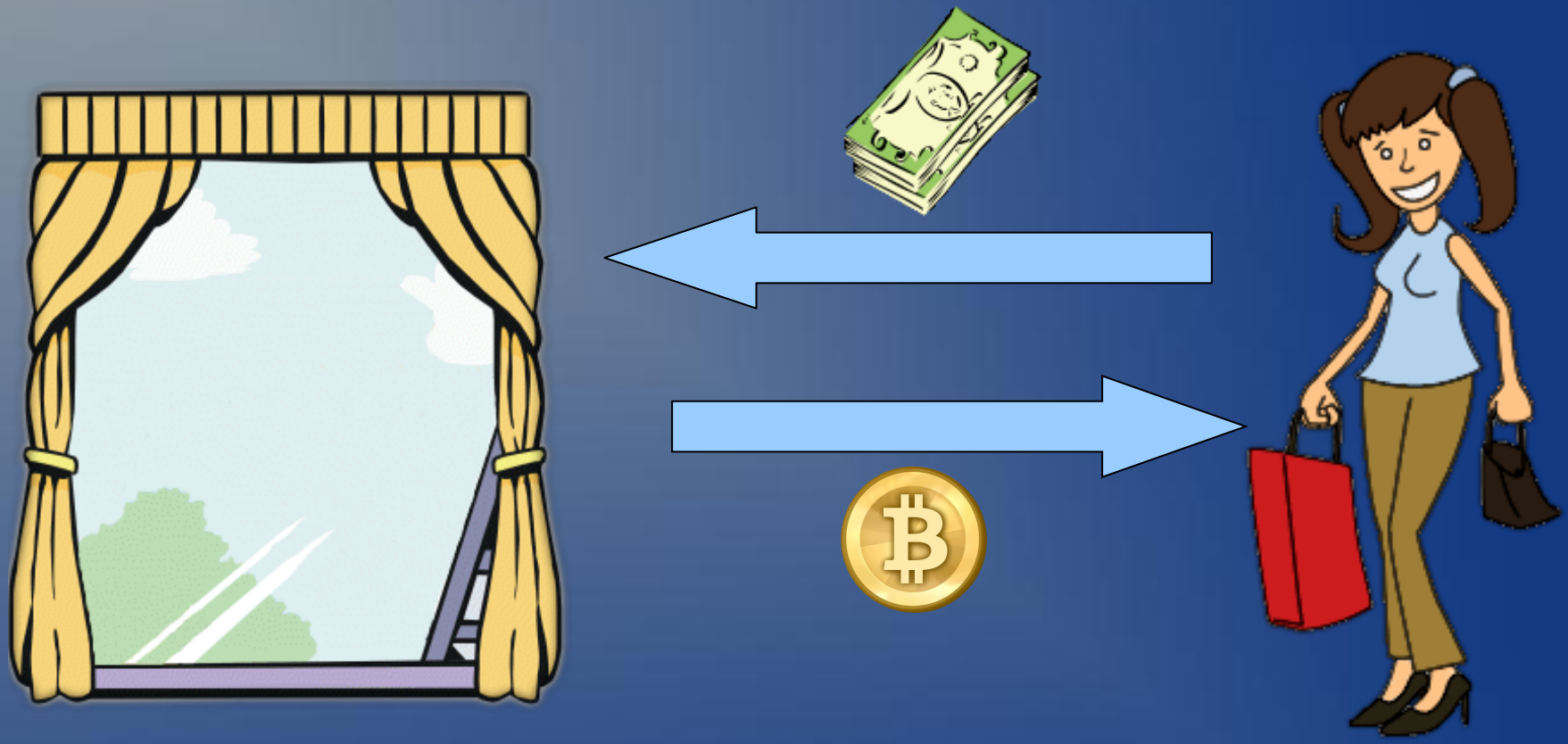
- **Free market**
- **Internet currency**
- **Decentralized**
- **Pseudonymous**
- **Fixed Inflation**

Bitcoin in action



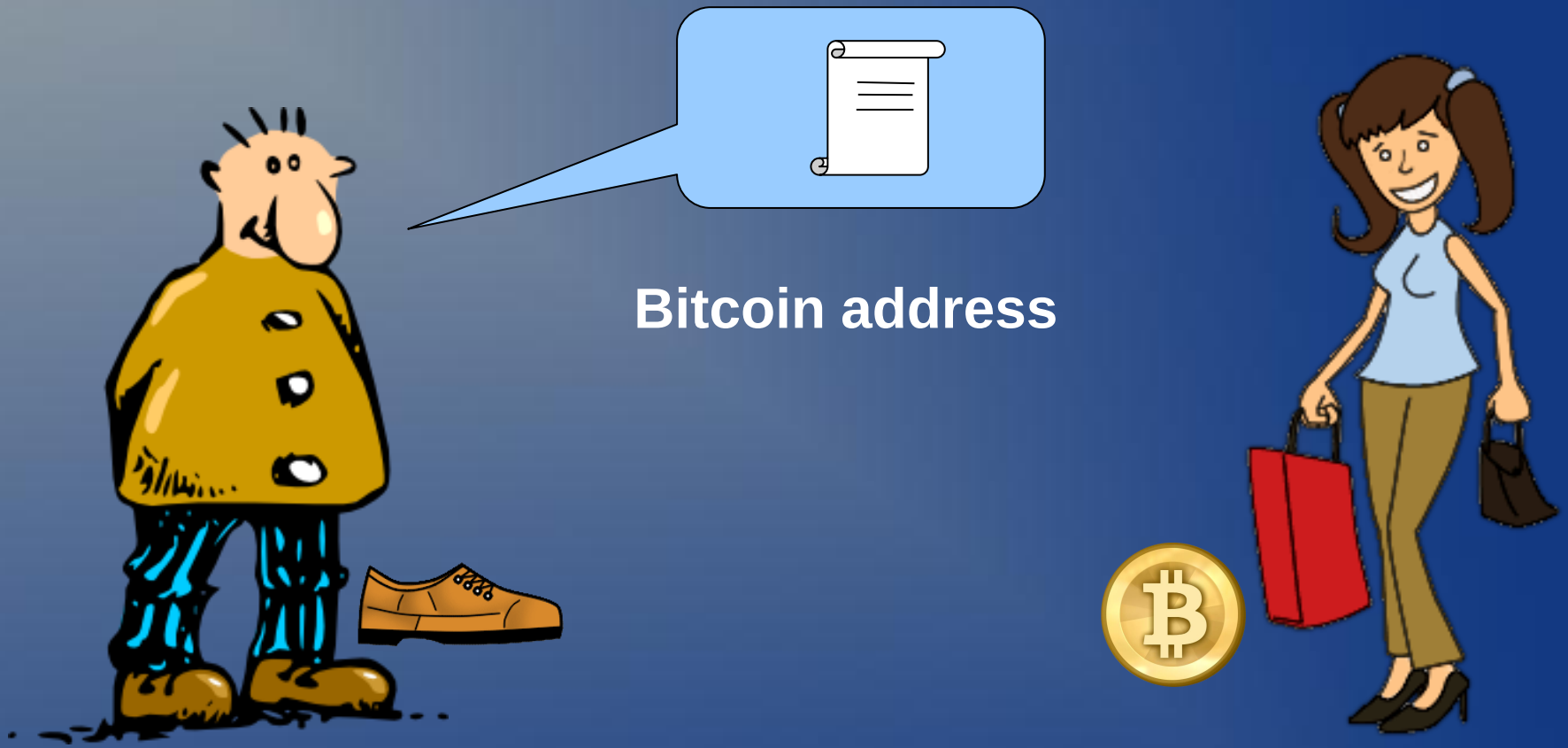
Alice and Bob agree on an exchange

Bitcoin in action



Alice buys Bitcoins through a Bitcoin exchange service

Bitcoin in action



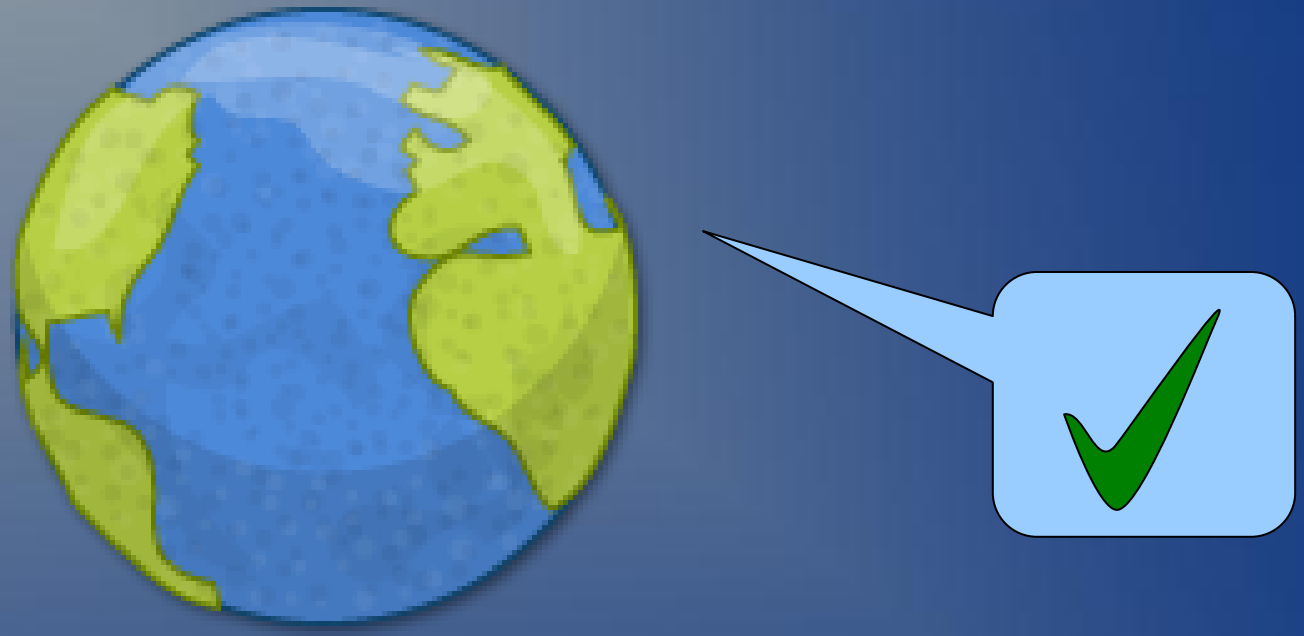
Bitcoin address

Bitcoin in action

Alice broadcasts transaction:

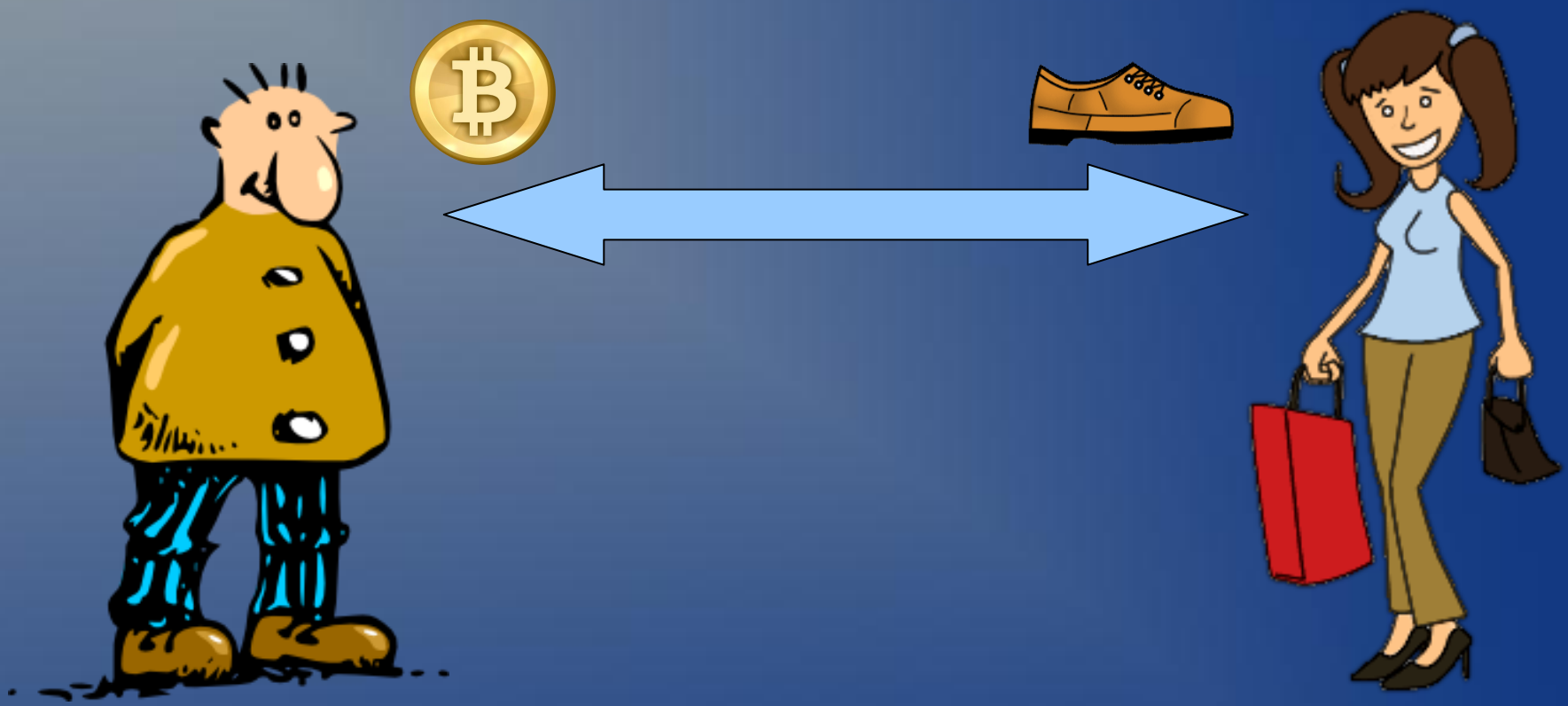
- **Buyer**
- **Seller**
- **Price**
- **Transaction fee**

Bitcoin in action



Bitcoin community validates

Bitcoin in action



Bob receives Bitcoins

Alice gets shoe

More on Bitcoin

A Bitcoin **does not exist!**

Bitcoins (BTC) is the <u>unit</u>

a Bitcoin user community ⟷ **the Bitcoin**

Bitcoins are mined

A record of all history: the Block chain

Features

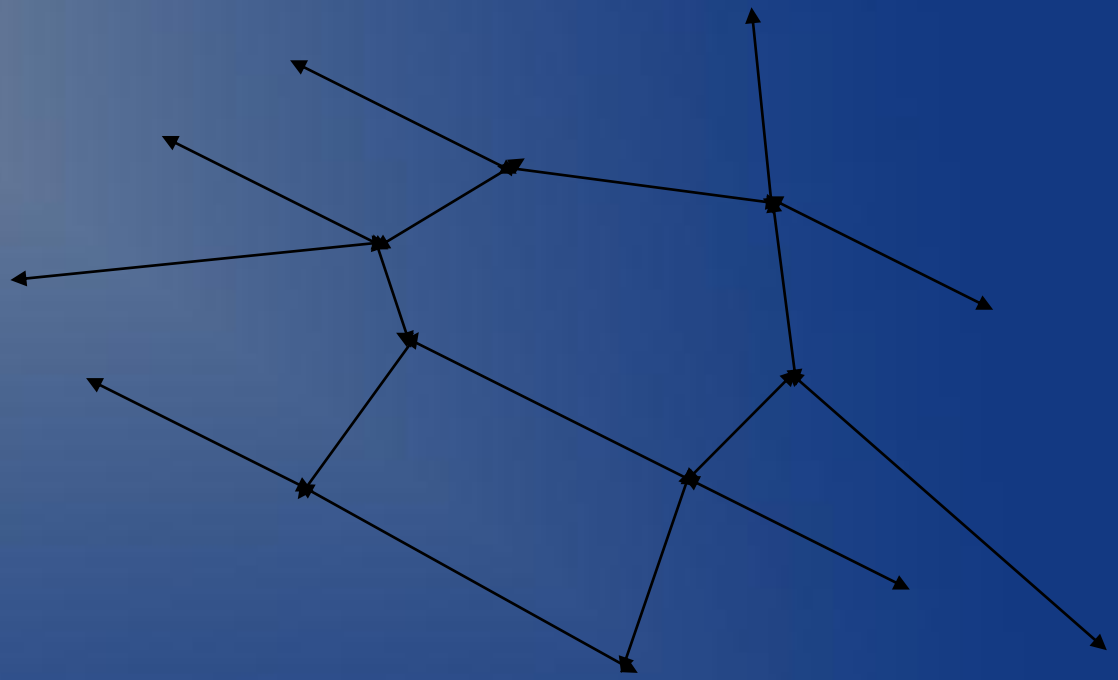
Digital currency

Access via computer program

Communication with Bitcoin community through the internet

Features

Decentralized



No central point of failure

Impossible to take down

Features

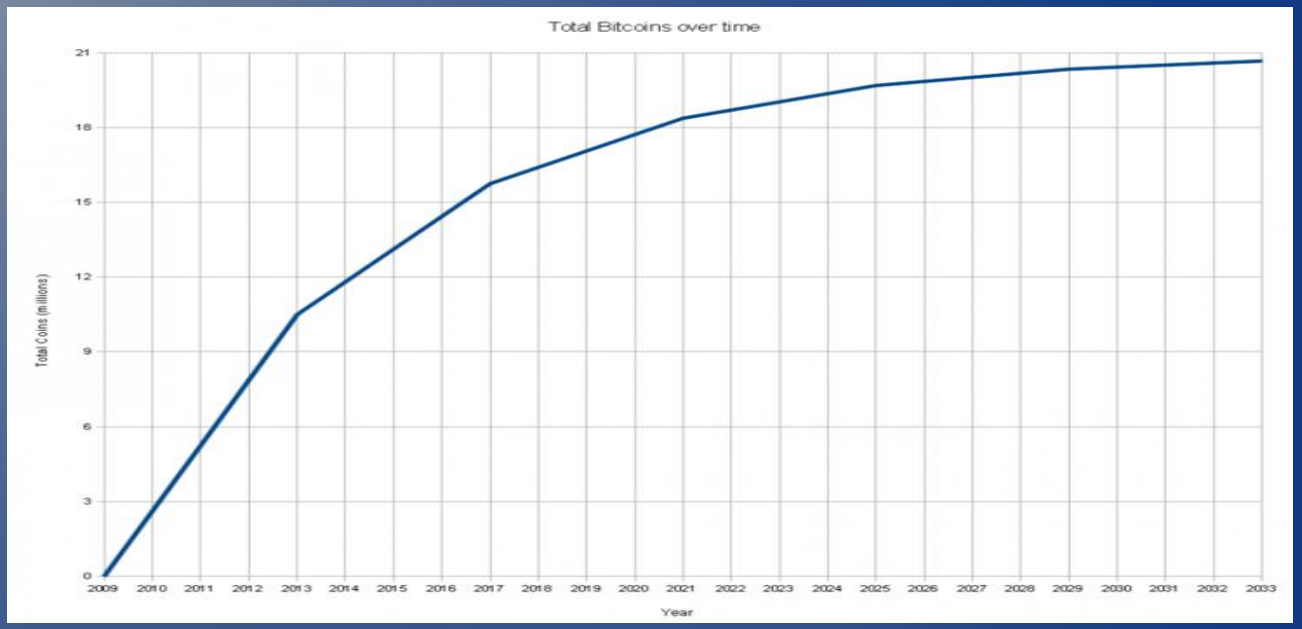
Pseudonymous

Bitcoin account does not identify its owner

Perfectly traceable

Features

Fixed inflation



NO fractional reserve lending

NO quantative easing

NO multiplier effect

Features

Mining?

Miners expand the Block chain

Block: haystack problem

- **Take apart straw by straw**
- **A needle is worth *x* BTC**

Is Bitcoin like *fiat money*?

Practical aspects

Bitcoin	Fiat (bank)	Fiat (cash)
Pseudo-nymous	No anonymity	Perfect anonymity
Almost final	6 month reversal period	Perfectly final
Dependent on community	Dependent on bank	Independent; isolated

Is Bitcoin like *fiat money*?

Financial aspects

Bitcoin	Fiat (bank)	Fiat (cash)
Controlled inflation	Backed by nothing	Backed by paper cost
Depends on: Cryptography, Design Principles	Depends on: Private banks, Central bank	Depends on: Central bank

Is Bitcoin like *fiat money*?

Where do they derive value from?

Bitcoin	Fiat (bank)	Fiat (cash)
Gadgety	Legal tender	Legal tender
Speculation	Momentum of economy	Momentum of economy
Taxes not due in Bitcoin	Taxes due	Taxes not due in cash

Is Bitcoin like gold?

Practical aspects:

Bitcoin	Gold (Physical)
Pseudonymous	Anonymous
Almost final	Perfectly final
Dependent on community	Independent; isolated

Is Bitcoin like gold?

Financial aspects

Bitcoin	Gold (Physical)
Controlled inflation	Fixed amount
Depends on: Cryptography, Design principles	Depends on nothing

Is Bitcoin like gold?

Where do they derive value from?

Bitcoin	Gold (Physical)
Gadgety	Momentum of economy
Speculation	Speculation
/	Insurance
/	Physical demand

Viability as *money*

Is there enough *confidence*? In the ...

- **medium**
- **provider**
- **users**
- **government**

Bitcoin: Summary

- Bitcoin in Action: Alice and Bob
- Features (digital – decentralized – pseudonymous – mined)
- Bitcoin vs. Fiat money
- Bitcoin vs. Physical Gold
- Viability of Bitcoin as Money

Dziękuję bardzo!

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Technology: a transaction

A sender publicises the details of the transaction

- **sender address**
- **receiver address**
- **amount to be transferred**
- **transaction fee**

Community validates the transaction

Technology: a block

A Block contains:

- reference to previous Block
- all recent transactions
- random padding

"Haystack" with *x* number of needles

- take apart straw by straw
- a needle is worth *y* amount of Bitcoins

Since every block references its predecessor, a chain of Blocks is formed

- The longest chain is the "real" one