Crypto Economy and International Law (I)

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Introduction to Technological and Economic Foundations

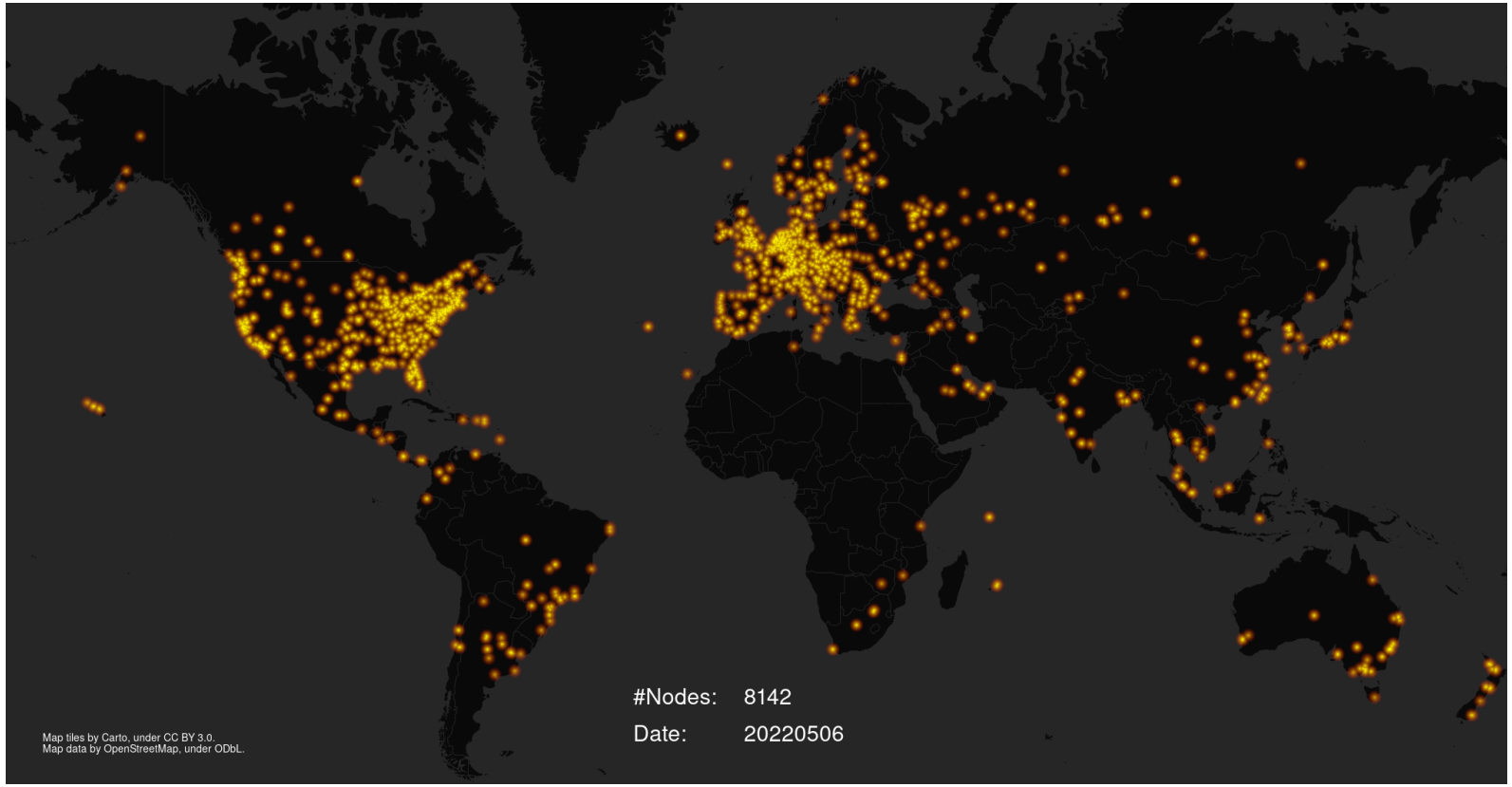
What Is the Blockchain?

1. a database
2. that is decentralised
3. allowing peer-to-peer transfers

- original: Bitcoin (2009)
- combination of different innovations

1. Decentralised Storage

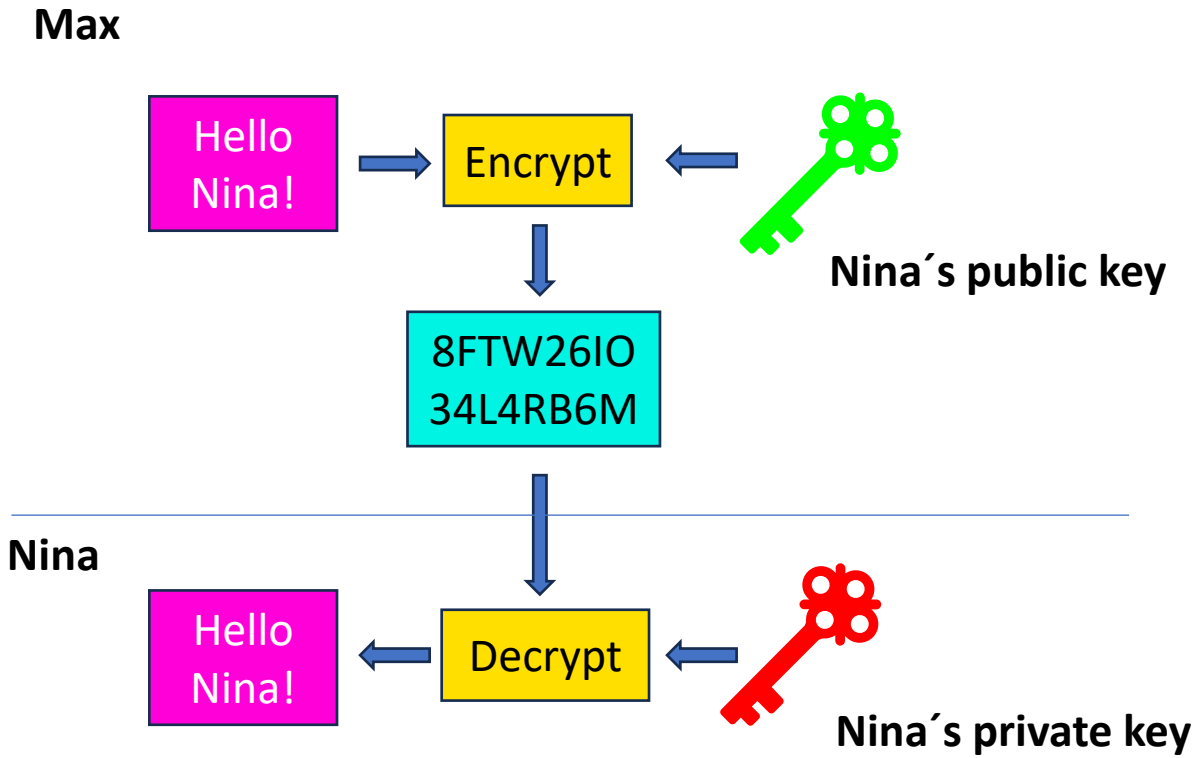
- distribution of Bitcoin nodes



source: DSN Bitcoin Monitoring, https://www.dsn.kastel.kit.edu/bitcoin/

2. Cryptographic Information

- cryptography using public and private keys



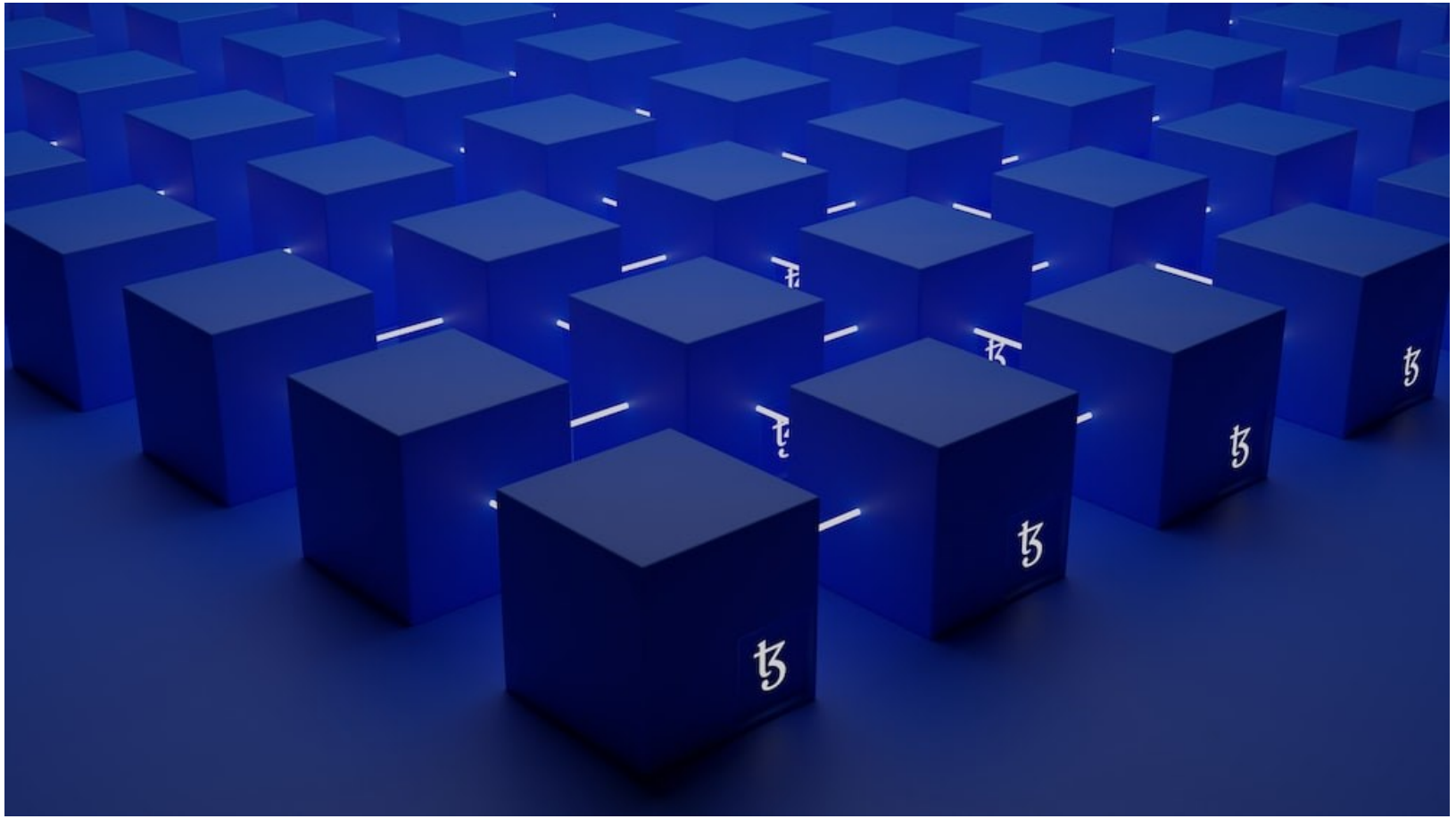
3. Distributed Consensus

source: https://www.coindesk.com/markets/2014/11/29/zennet-to-pay-for-distributed-computing-with-blockchain-tech

4. Proof of Work

source: https://de.bitcoinwiki.org/wiki/Proof-of-Work

5. Immutability



source: https://tanvirtalks.substack.com/p/web-3-challenges-part-2-blockchain

The Actors

the intermediaires

1. crypto exchanges
2. decentralised exchanges
3. wallet providers

Conclusion

- blockchain = first global mechanism for the storage and transfer of value
- not limited by national frontiers
- alternating waves of centralisation and decentralisation

Rule of Code or Rule of Law?

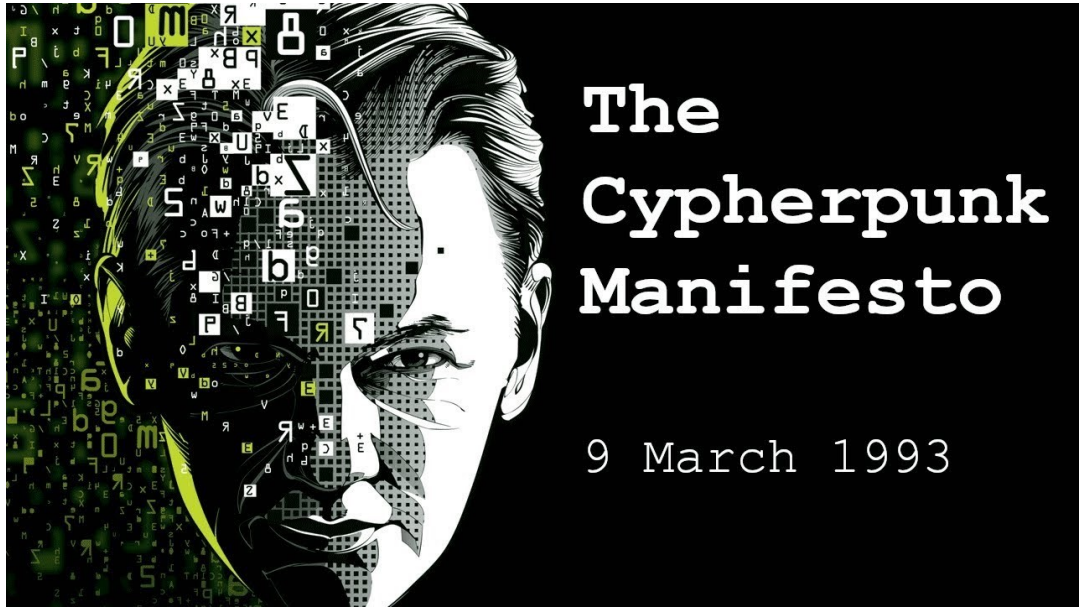
The Secret Origin of Bitcoin

- Who is Satoshi Nakamoto?

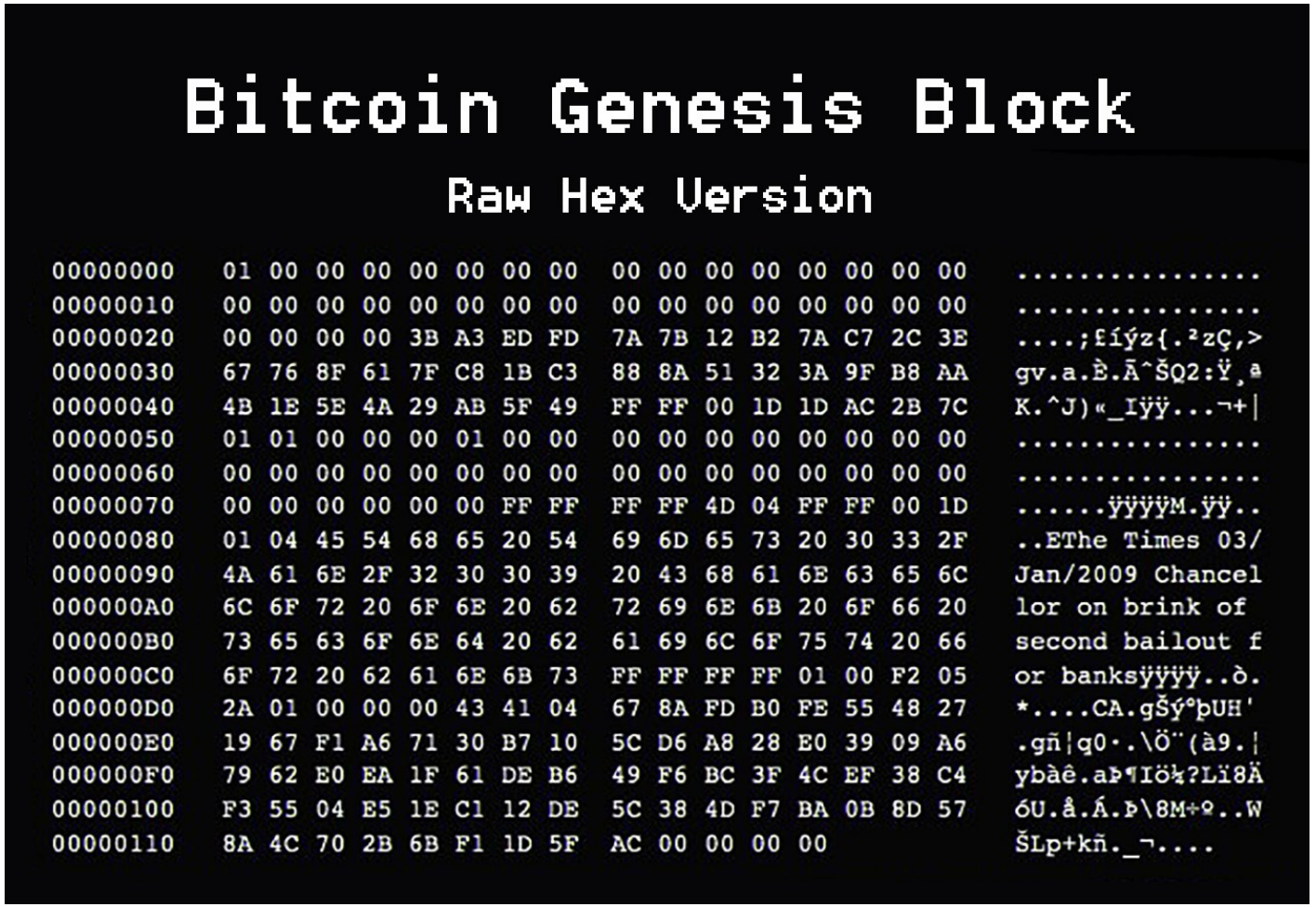
Statue constructed in 2021 in Budapest

Cypherpunks

- Eric Hughes and the "Cypherpunk Manifesto"
- fretting about the danger of the surveillance state
- goal: protection of privacy
- distrust in governments and capitalist institutions
- use of cryptography
- electronic money



- First Bitcoin block, 3 January 2009



source: Bitcoin Genesis Block, https://commons.wikimedia.org/wiki/File:Bitcoin-Genesis-block.jpg

The Dangers of the Blockchain

1. Dangers for public interests

a) a stomping ground for criminals

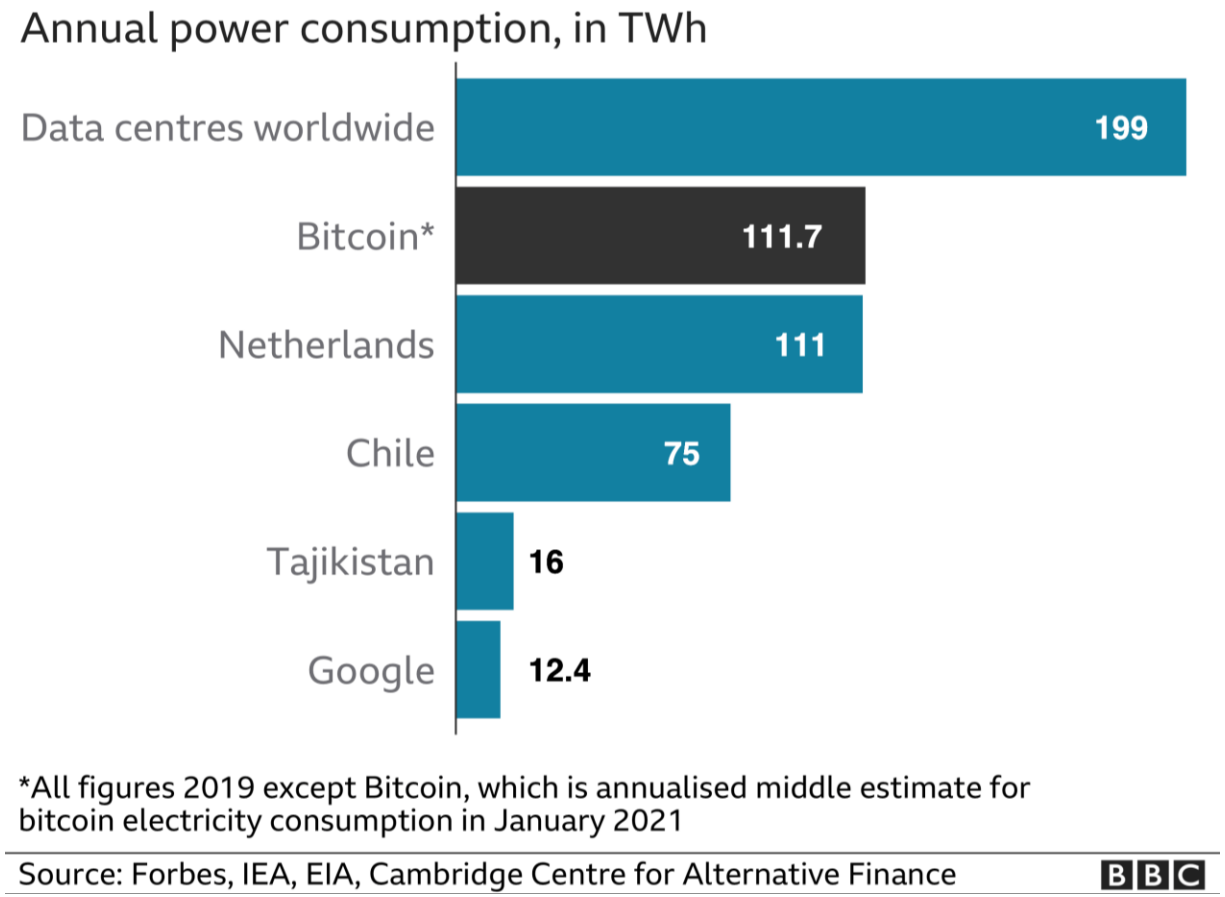
- money laundering
- terrorism finance
- drugs and arms dealing
- exploitation of children
- human traficking
- blackmailing
- tax evasion
- sanctions and embargo evasion

The Dangers of the Blockchain

1. Dangers for public interests

b) macroeconomic dangers

- source of financial instability
- undermining monetary policy
- environmental damage



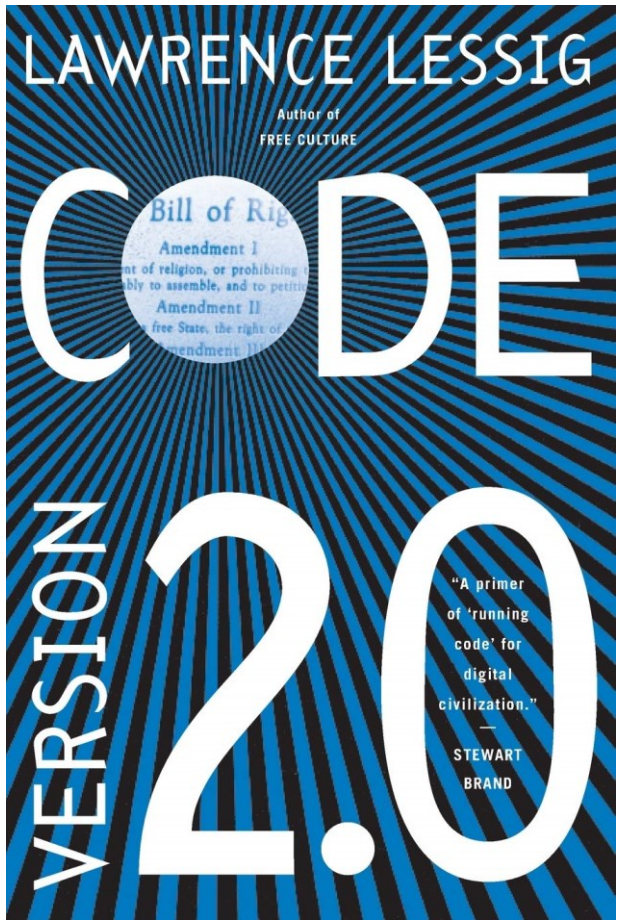
The Dangers of the Blockchain

2. Dangers for private interests

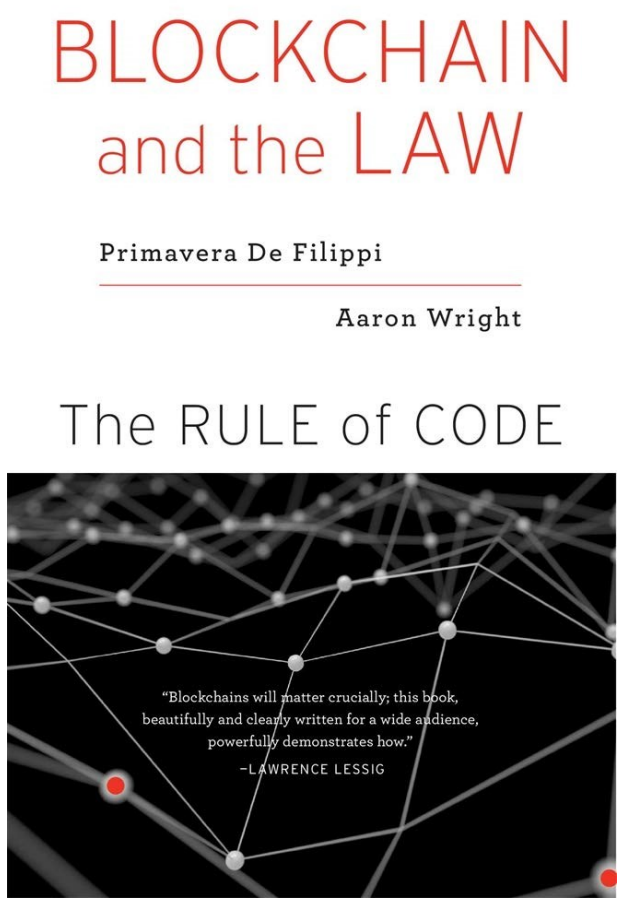
- asymmetric information
- Ponzi schemes
- fraud
- theft
- randsomware
- gambling
- technological defects
- bankruptcy

A-Legal Blockchain?

- Code as Law



- The *lex cryptographia*



Conclusion

- blockchain = independent of the state
- but creates a plethora of legal problems
- must be submitted to a law

– which one?

The International Regulation of the Blockchain

1. The Confusion About Policy

The divergent positions of states concerning the crypto economy

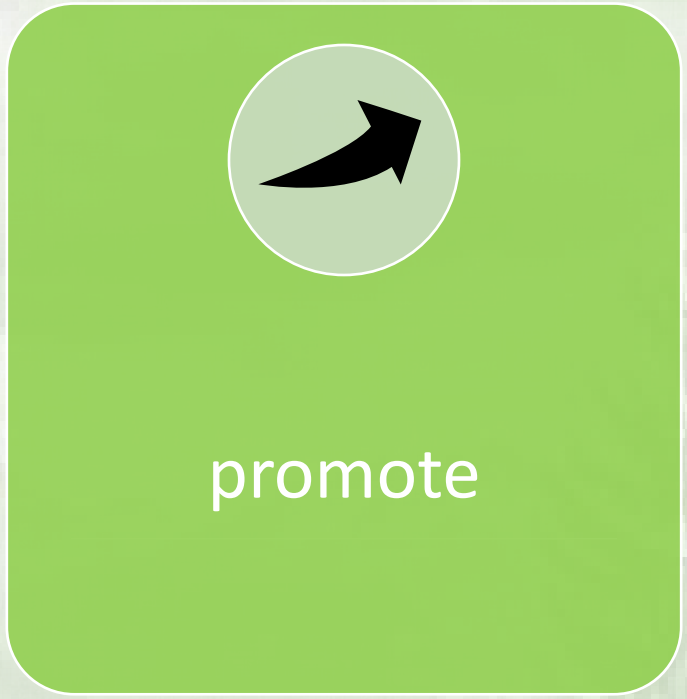
example: China

- 2013: prohibition for financial institutions to engage in crypto-activities
- 2017: prohibition of ICOs
- 2021: prohibition of mining and of offering crypto assets to Chinese residents

tolerate

example:
USA

- application of general rules (anti-money laundering, federal securities law, state money transmission laws)
- neither prohibition nor favour
- technological neutrality of the law



example: Switzerland

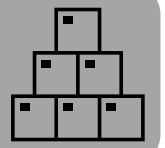
- regulatory "sandbox": deposits of up to CHF 1mn without banking licence
- "FinTech licence": deposits of up to CHF 100mn under a light regulatory regime
- aim: becoming the world's "crypto valley"

2. The Confusion About the Proper Legal Category

What is Bitcoin?

money 

security 

commodity 

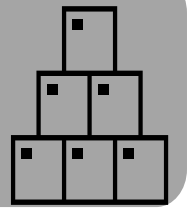
money

- cryptocurrency is not legal tender (exception: El Salvador)
- but may function as a means of payment
- applicability of rules on anti-money laundering (AML), e.g. know your customer (KYC)

security

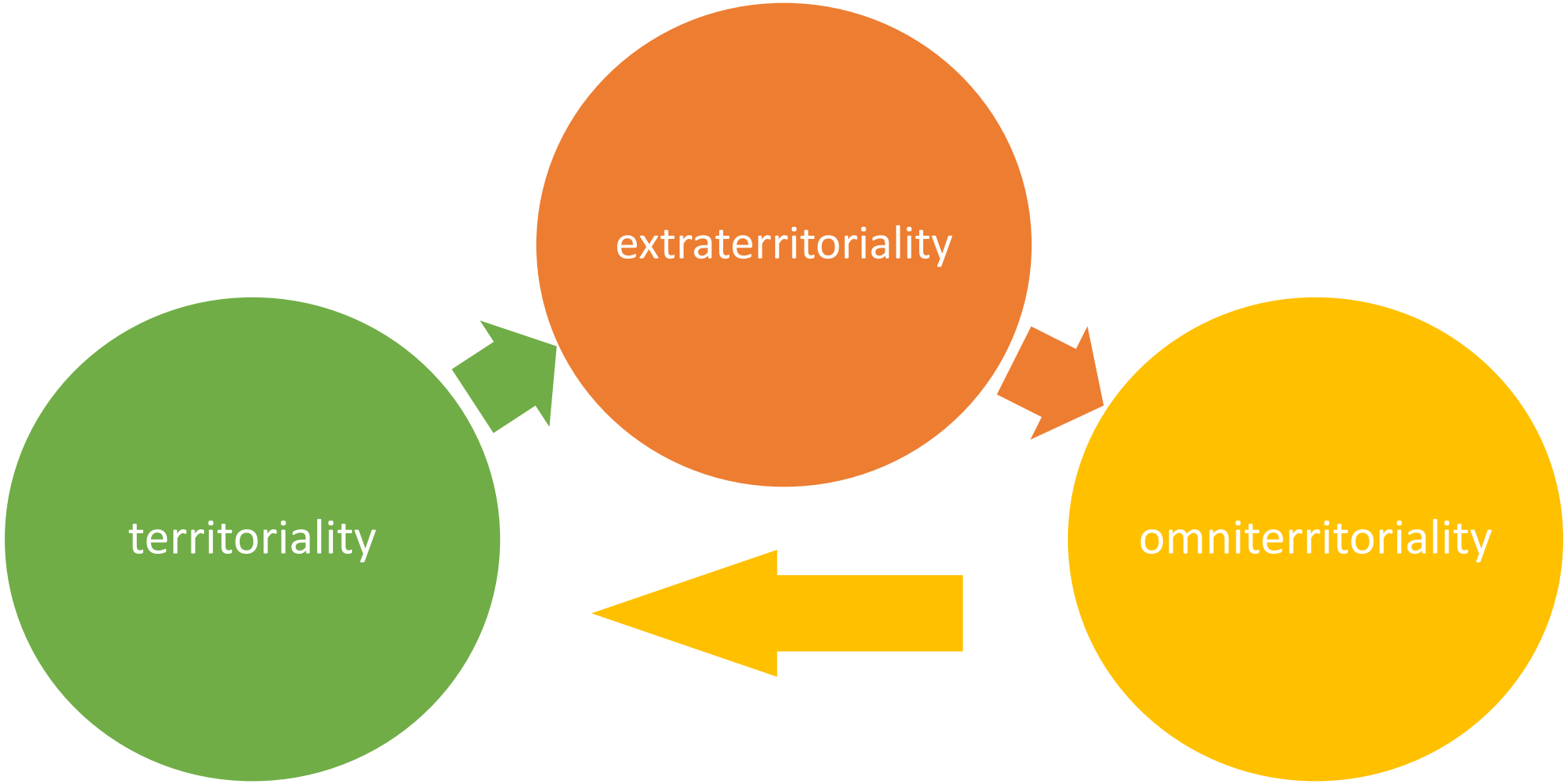
- many crypto assets are used for investment purposes
- traded on crypto exchanges
- subject to rules of financial law (e.g. duty of issuer to register, publication of prospectus, prohibition of market manipulation)

commodity



- some crypto assets lack an issuer and are recorded on a completely distributed blockchain, e.g. Bitcoin
- some authorities consider them to be commodities (e.g. U.S. CFTC)
- result: supervision of derivatives market applies

3. The Confusion About Jurisdiction



territoriality

- principle of sovereignty of states under public international law
- prohibition to use force outside of the state's territory
- limits "jurisdiction to enforce"

extraterritoriality

- ”prescriptive” and “adjudicative” jurisdiction are not territorially limited
- a state can apply its law to events outside of its territory
- condition: genuine link

omniterritoriality

- the nodes are distributed over the planet
- the blockchain is accessible from any point on the Earth
- result: each state can regulate the crypto economy

4. The Consequences

- each state
  1. follows its own policy
  2. characterises the products differently
  3. has jurisdiction to regulate the blockchain

➢ worldwide legal chaos

4. The Consequences

- this chaos hurts the actors and the functioning of the crypto economy
- but it also undermines the efforts of states aiming for a tighter regulation

➢ possibility of regulatory arbitrage

Conclusion

- all states have jurisdiction to regulate the blockchain
- but divergences of national laws create inefficiencies
- more coordination and cooperation between states are necessary

➢ a global phenomenon calls for worldwide regulation