



Sound Money Properties Series

#7: PEER-TO-PEER, PERMISSIONLESS &
FRICTIONLESS

with @SimplestBTCBook and @DJSATOSHI18

- Ⓝ PORTABLE, DURABLE, DIVISIBLE, FUNGIBLE
- Ⓝ TRULY SCARCE
- Ⓝ DISTRIBUTED & DECENTRALIZED
- Ⓝ CENSORSHIP RESISTANT & UNCONFISCATABLE
- Ⓝ IMMUTABLE & INCORRUPTIBLE
- Ⓝ EASILY VERIFIABLE & CAN'T BE COUNTERFEITED
- Ⓝ PEER-TO-PEER, PERMISSIONLESS & FRICTIONLESS
- Ⓝ NEUTRAL & VOLUNTARY
- Ⓝ TRANSPARENT, OPEN-SOURCE & AUDITABLE
- Ⓝ BORDERLESS
- Ⓝ PROVIDES SETTLEMENT FINALITY
- Ⓝ PSEUDONYMOUS & TRUSTLESS
- Ⓝ SECURE & SCALABLE
- Ⓝ DISINFLATIONARY/DEFLATIONARY

WHAT

does peer-to-peer, permissionless, frictionless mean?



WHY

are these important properties of truly sound money?



HOW

does bitcoin achieve these properties?



WHAT

does peer-to-peer, permissionless, frictionless mean?

PEER-TO-PEER

Definition

:

1: relating to, using, or being a network by which computers operated by individuals can share information and resources directly without relying on a dedicated central server

2: existing or done between peers

- merriamwebster.com

A PEER-TO-PEER NETWORK

A type of network architecture that has each node hold its own data, request data from its peers, and be able to provide data to peers.

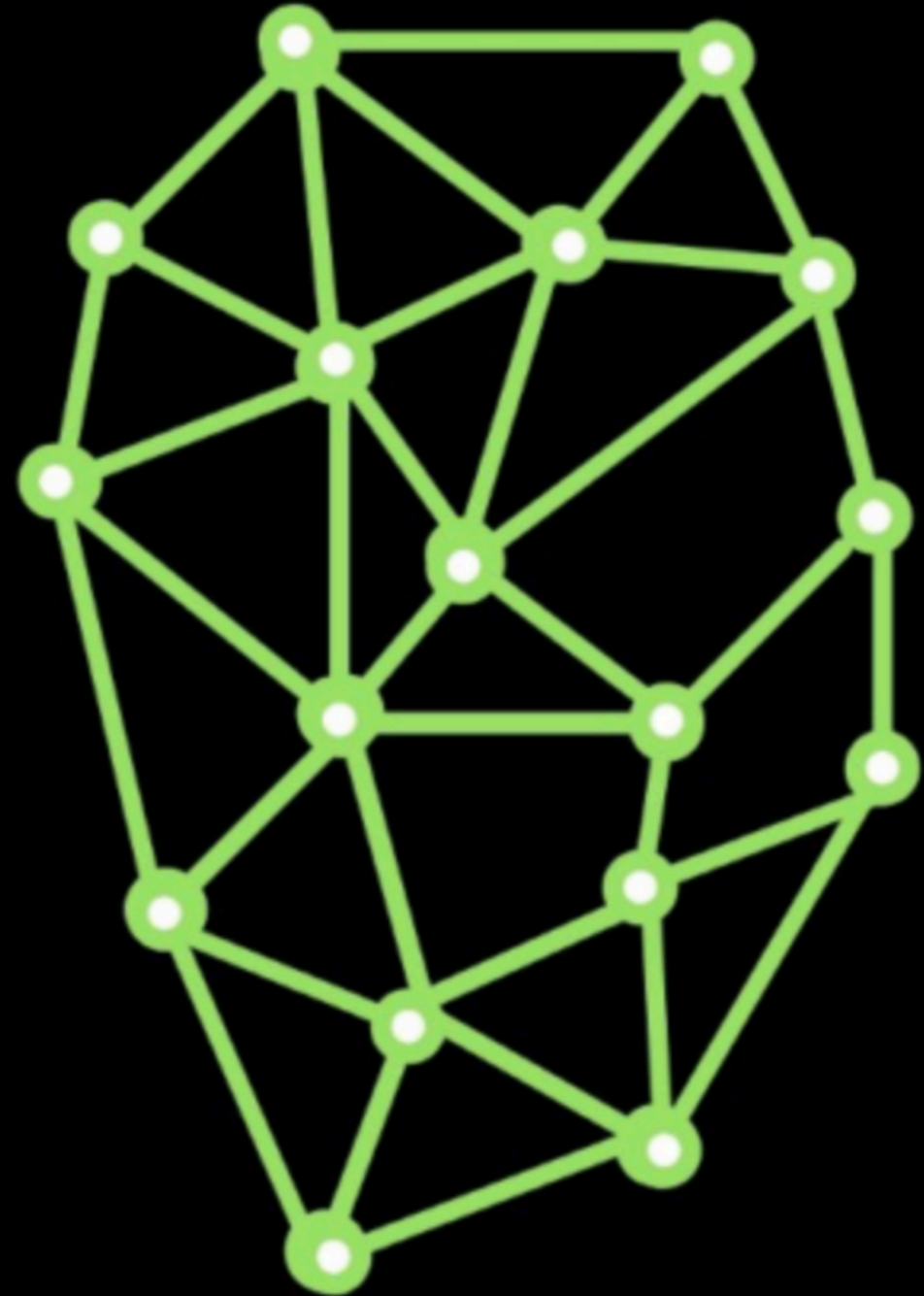
Peer-to-peer is typically contrasted with the client-server model, where the server holds the data, and the client requests the data only from the server.

In Bitcoin, it's the network of full nodes (peers) that make the system peer-to-peer.

~ From: Bitcoin Clarity by Kiara Bickers



Centralized



Distributed

(A) Peer-to-peer network is a network structure in which all members have equal privileges and obligations towards one another. There are no central coordinators who can change the rules of the network.

Node operators that disagree with how the network functions cannot impose their opinions on other members of the network or override their privileges.

Bitcoin utilizes a network similar to BitTorrent*, but whereas in BitTorrent the network members share the bits of data that constitute a movie, song or book, in Bitcoin the network members share the ledger of all bitcoin transactions.

~ From: The Bitcoin Standard by Saifedean Ammous

* (decentralized file sharing)

PERMIT

Definition

:

1 : to give leave, to make possible

- [merriamwebster.com](https://www.merriamwebster.com)

PERMISSION

Definition

:

1 : the act of permitting

- [merriamwebster.com](https://www.merriamwebster.com)

PERMISSIONLESS

=

WITHOUT PERMISSION

PERSMISSIONLESS

The property of a system that **cannot gate users from joining or dropping off** the network.

~ From: Bitcoin Clarity by Kiara Bickers



The internet allows two individuals to transfer data **without permission** from any central authority.

Bitcoin does the same for value.

~ Naval Ravikant: Tweet Feb 21, 2014

PERSMISSIONLESS & PEER-TO-PEER

Bitcoin is permission-less. You can transact on the bitcoin network without any 3rd party constraints because it is peer-to-peer. As a participant in the Bitcoin network, you are completely sovereign.

~ From: The Seventh Property: Bitcoin and the Monetary Revolution
by Eric Yakes



The Bitcoin network has no barrier to entry. It is simply a tool that timestamps containers of information, linking them together at regular intervals. Anyone wishing to use this utility, and abide by the rules of the network is free to do so.

~ From: Few Understand This: A Visual Guide to Bitcoin's Rise by
@anilsaidso

PERMISSIONLESS AT THE NETWORK LEVEL

... it is **permissionless at the network level**. When bitcoins are transmitted on the Bitcoin network, there is **no human intervention deciding whether the transaction should be allowed**.

As a **distributed, peer-to-peer network**, Bitcoin is, by its very nature, designed to be censorship-resistant.

This is **in stark contrast to the fiat banking system**, where states regulate banks and the other gatekeepers of money transmission...

~ From: The Bullish Case for Bitcoin by Vijay Boyapati

FRICTION

Definition

:

1 : the clashing between two persons or parties
of opposed views

2 : the force that resists relative motion between
two bodies

- [merriamwebster.com](https://www.merriam-webster.com)

FRICITIONLESS

=

WITHOUT FRICTION

FRICTIONLESS

Bitcoin's permissionless design **reduces the friction associated with moving value by removing gatekeepers and censorship**. This affords more people the opportunity to engage in freer investment and trade, enabling new, previously uneconomical business models and forms of expression.

~ From: Few Understand This: A Visual Guide to Bitcoin's Rise by
@anilsaidso



WHY

are these important properties of truly sound money?

- Being a peer-to-peer, permissionless and frictionless network, bitcoin allows **anyone, anywhere to transact freely at any time.**
- It is essential for **sovereign beings to retain sovereign use of and control over our money**, which is **a store of our time and energy**, and thus **only we** should choose how to spend it.
- With bitcoin as freedom money, **we get to choose how, when, where and with whom to transact.**

- 🔸 We also get to choose how much to send and receive.
- 🔸 Since bitcoin is made frictionless by being digitally native, we can send or receive as little as one satoshi, which is 1/100,000,000th of a bitcoin.
- 🔸 This opens up a whole world of possibilities, including the option to pay content creators directly for their work, even for something as small as a post on nostr, which is called a zap!



HOW

does bitcoin achieve these properties?

- Ⓝ Bitcoin is able to be peer-to-peer, permissionless and frictionless **because it is digitally native**.
- Ⓝ This means that, unlike the fiat in a bank account, **it is code**.
- Ⓝ By utilizing a globally distributed network run by ad hoc volunteers worldwide, **it is decentralized and this prevents any central controllers from censoring** or otherwise preventing transactions from being processed.
- Ⓝ Anyone with an internet connection and a few GB of hard drive space can run a node (6GB for a pruned full node and just over 500GB for an archival full node) **without requiring permission** from anyone else.

(Bitcoin) as a digitally native money (is) designed to utilize, and work seamlessly with, the plumbing of the internet.

~ @anilsaidso

Thanks for listening!

Feedback always welcome!

Next week we will discuss bitcoin's properties of being

NEUTRAL & VOLUNTARY.

