

How to pay with ...

Bitcoin



WHAT IS BITCOIN?

Bitcoin is a consensus network that enables a new payment system and a completely digital money. It is the first decentralized peer-to-peer payment network that is powered by its users with no central authority or middlemen. From a user perspective, **Bitcoin is pretty much like cash for the Internet**. Bitcoin can also be seen as the most prominent *triple entry bookkeeping system*¹ in existence.



WHO CREATED BITCOIN?

The first Bitcoin specification and proof of concept was published in 2009 in a cryptography mailing list by **Satoshi Nakamoto**. Satoshi left the project in late 2010 without revealing much about himself. The community has since grown exponentially with *many developers*² working on Bitcoin.



HOW DOES BITCOIN WORK?

From a user perspective, Bitcoin is nothing more than a **mobile app or computer program** that provides a personal Bitcoin wallet and allows a user to send and receive bitcoins with them. This is how Bitcoin works for most users.

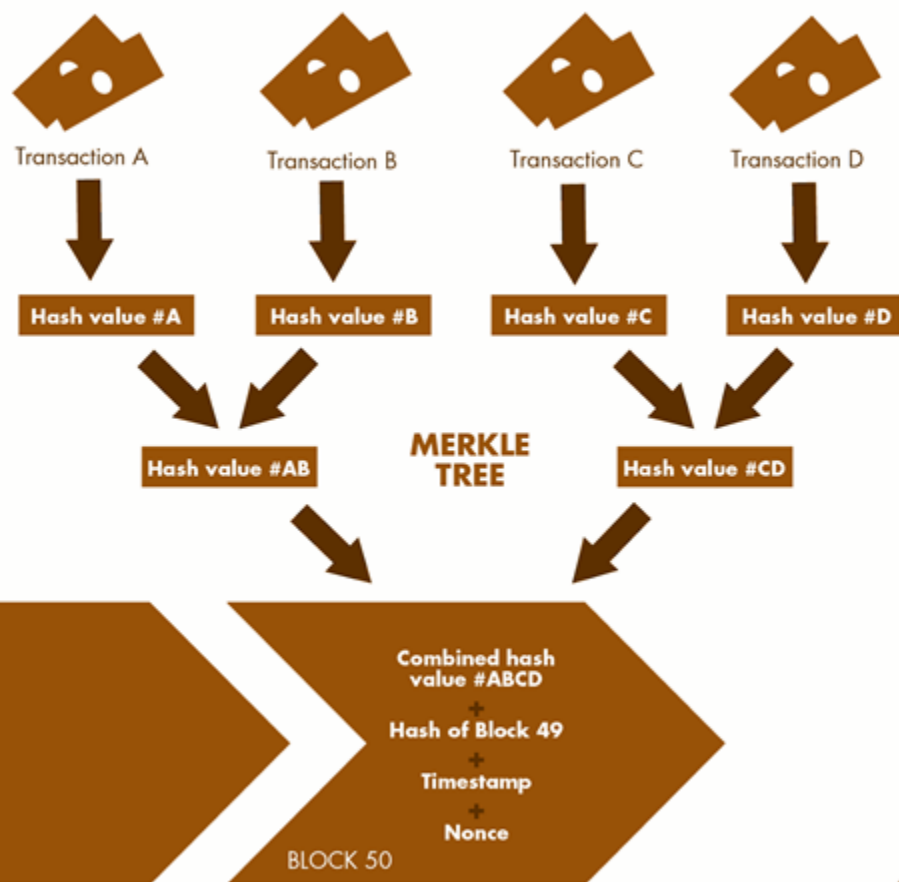
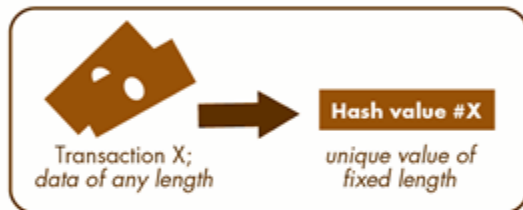


Behind the scenes ...

... the Bitcoin network is sharing a public ledger called the "blockchain". This ledger contains every transaction ever processed, allowing a user's computer to verify the validity of each transaction. The authenticity of each transaction is protected by digital signatures corresponding to the sending addresses, allowing all users to have full control over sending bitcoins from their own Bitcoin addresses. In addition, anyone can process transactions using the computing power of specialized hardware and earn a reward in bitcoins for this service. This is often called "mining". To learn more about Bitcoin, you can consult the dedicated page and the *original paper*³



HOW THE BLOCKCHAIN WORKS



Cryptocurrencies Transaction Speeds Compared to Visa & Paypal



LIGHTNING NETWORK

Scalable, Instant Bitcoin/Blockchain Transactions

Instant Payments. Lightning-fast blockchain payments without worrying about block confirmation times. Security is enforced by blockchain smart-contracts without creating a on-blockchain transaction for individual payments. Payment speed measured in milliseconds to seconds.

Scalability. Capable of millions to billions of transactions per second across the network. Capacity blows away legacy payment rails by many orders of magnitude. Attaching payment per action/click is now possible without custodians.

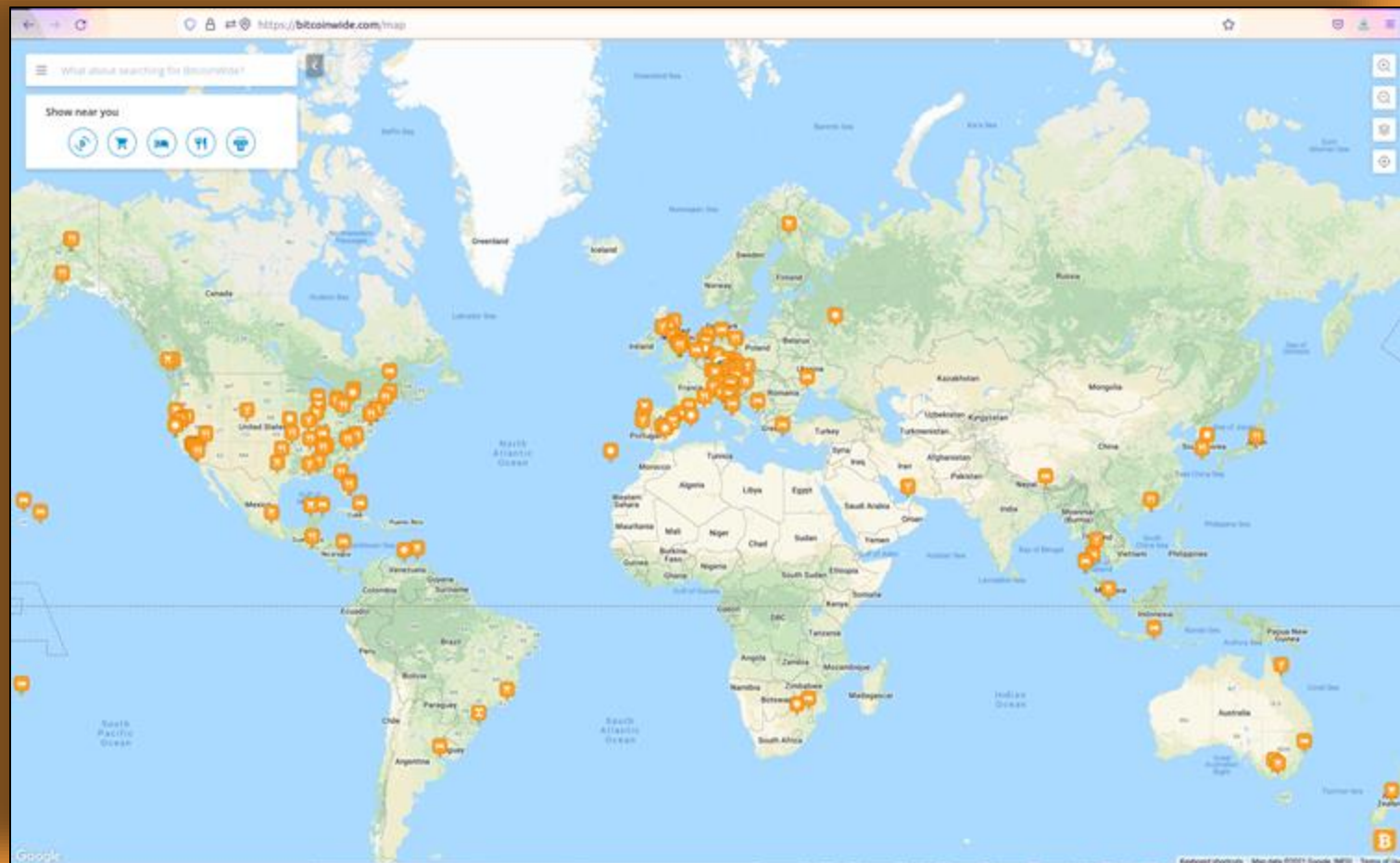
Low Cost. By transacting and settling off-blockchain, the Lightning Network allows for exceptionally low fees, which allows for emerging use cases such as instant micropayments.

Is Bitcoin really used by people?



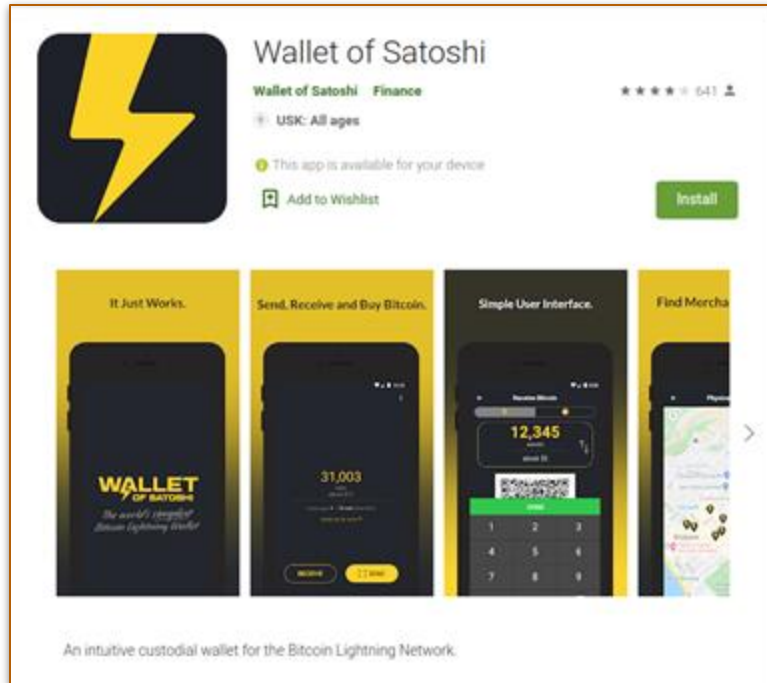
YES

There are a growing number of businesses and individuals using Bitcoin. This includes brick-and-mortar businesses like restaurants, apartments, and law firms, as well as popular online services such as Namecheap and Overstock.com. While Bitcoin remains a relatively new phenomenon, it is growing fast. As of May 2018, the total value of all existing bitcoins exceeded 100 billion US dollars, with millions of dollars worth of bitcoins exchanged daily.

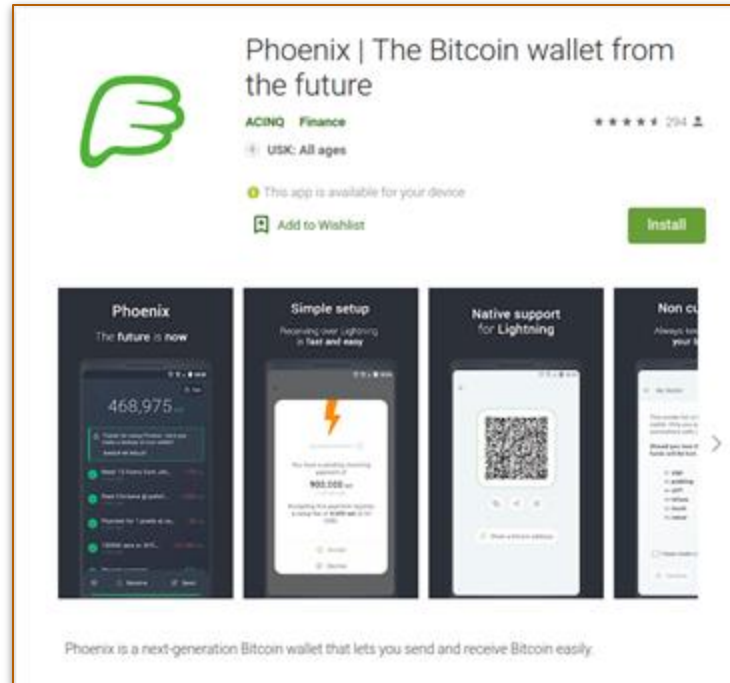


WALLETS

Wallet of Satoshi (custodial)



Phoenix (non-custodial)





While it may be possible to find individuals who wish to sell bitcoins in exchange for a credit card or PayPal payment, most exchanges do not allow funding via these payment methods. This is due to cases where someone buys bitcoins with PayPal, and then reverses their half of the transaction. This is commonly referred to as a chargeback.

How does one acquire bitcoins?

- 01 As payment for goods or services.
- 02 Purchase bitcoins at a [Bitcoin exchange](#).
- 03 Exchange bitcoins with [someone near you](#).
- 04 Earn bitcoins through competitive mining.

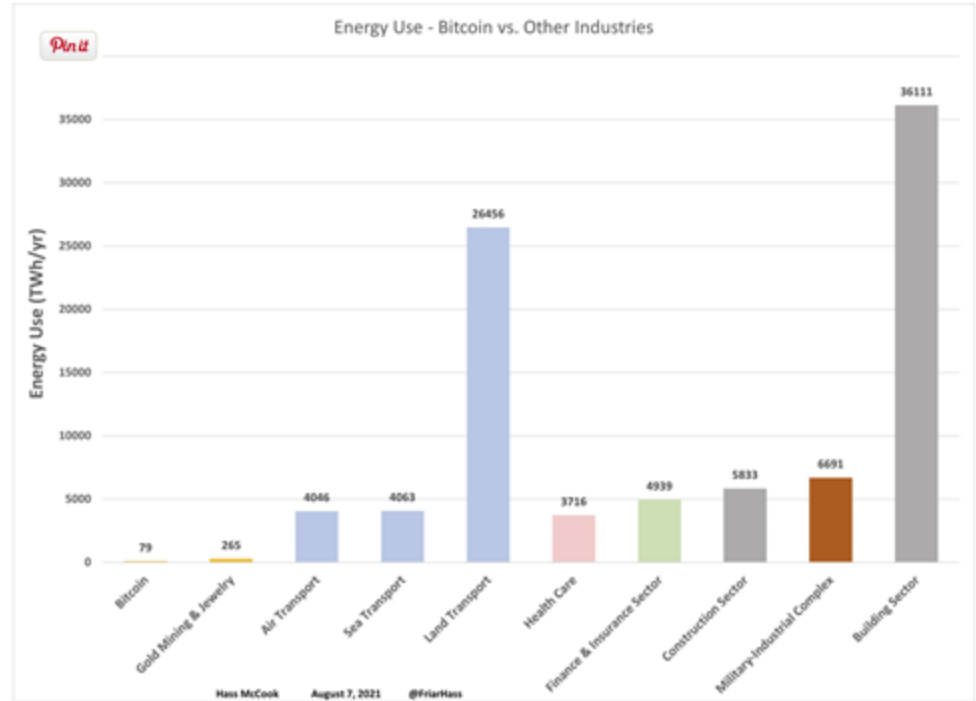
What is Bitcoin mining?

Mining is the process of spending computing power to process transactions, secure the network, and keep everyone in the system synchronized together. It can be perceived like the Bitcoin data center except that it has been designed to be fully decentralized with miners operating in all countries and no individual having control over the network. This process is referred to as "mining" as an analogy to gold mining because it is also a temporary mechanism used to issue new bitcoins. Unlike gold mining, however, Bitcoin mining provides a reward in exchange for useful services required to operate a secure payment network. Mining will still be required after the last bitcoin is issued.



Isn't Bitcoin mining a waste of energy?

Spending energy to secure and operate a payment system is hardly a waste. Like any other payment service, the use of Bitcoin entails processing costs. Services necessary for the operation of currently widespread monetary systems, such as banks, credit cards, and armored vehicles, also use a lot of energy. Although unlike Bitcoin, their total energy consumption is not transparent and cannot be as easily measured.





The value of Bitcoin?

What are the advantages of Bitcoin?

Payment freedom

It is possible to send and receive bitcoins anywhere in the world at any time. No bank holidays. No borders. No bureaucracy. Bitcoin allows its users to be in full control of their money.



Cheap transactions

There is no fee to receive bitcoins, and many wallets let you control how large a fee to pay when spending. Higher fees can encourage faster confirmation of your transactions. Fees are unrelated to the amount transferred, so it's possible to send 100,000 bitcoins for the same fee it costs to send 1 bitcoin. Additionally, merchant processors exist to assist merchants in processing transactions, converting bitcoins to fiat currency and depositing funds directly into merchants' bank accounts daily. As these services are based on Bitcoin, they can be offered for much lower fees than with PayPal or credit card networks.



Fewer risks for merchants

Bitcoin transactions are secure, irreversible, and do not contain customers' sensitive or personal information. This protects merchants from losses caused by fraud or fraudulent chargebacks, and there is no need for PCI compliance. Merchants can easily expand to new markets where either credit cards are not available or fraud rates are unacceptably high. The net results are lower fees, larger markets, and fewer administrative costs.



Security and control

Bitcoin users are in full control of their transactions; it is impossible for merchants to force unwanted or unnoticed charges as can happen with other payment methods. Bitcoin payments can be made without personal information tied to the transaction. This offers strong protection against identity theft. Bitcoin users can also protect their money with backup and encryption.



BLOCKCYPHER BTC Address, transaction or block

Bitcoin Explorer

Relai Mehr erfahren

Recent Blocks

Height	Age	Transactions	Total Sent	Total Fees	Block Size (in bytes)
713101	2021-12-07T20:55:38.527Z	2,081	4,877.646 BTC	0.055 BTC	1,300,286
713100	2021-12-07T20:46:53.483Z	701	22,543.165 BTC	0.018 BTC	504,711
713099	2021-12-07T20:45:10.565Z	817	2,584.787 BTC	0.026 BTC	574,921
713098	2021-12-07T20:40:30.504Z	790	823.798 BTC	0.027 BTC	743,715
713097	2021-12-07T20:37:06.924Z	2,349	28,020.084 BTC	0.07 BTC	1,336,552

Current Fee Estimates

[API Call](#) [API Docs](#)

High Priority (1-2 blocks)	Medium Priority (3-6 blocks)	Low Priority (7+ blocks)
0.00009 BTC/KB ⓘ	0.00005 BTC/KB ⓘ	0.00003 BTC/KB ⓘ

Transparent and neutral

All information concerning the Bitcoin money supply itself is readily available on the block chain for anybody to verify and use in real-time. No individual or organization can control or manipulate the Bitcoin protocol because it is cryptographically secure. This allows the core of Bitcoin to be trusted for being completely neutral, transparent and predictable.

What are the disadvantages of Bitcoin?

Volatility

The total value of bitcoins in circulation and the number of businesses using Bitcoin are still very small compared to what they could be. Therefore, relatively small events, trades, or business activities can significantly affect the price. In theory, this volatility will decrease as Bitcoin markets and the technology matures. Never before has the world seen a startup currency, so it is truly difficult (and exciting) to imagine how it will play out.





Why do people trust Bitcoin?

Much of the trust in Bitcoin comes from the fact that it requires no trust at all. Bitcoin is fully open-source and decentralized. This means that anyone has access to the entire source code at any time. Any developer in the world can therefore verify exactly how Bitcoin works. All transactions and bitcoins issued into existence can be transparently consulted in real-time by anyone. All payments can be made without reliance on a third party and the whole system is protected by heavily peer-reviewed cryptographic algorithms like those used for online banking. No organization or individual can control Bitcoin, and the network remains secure even if not all of its users can be trusted.



How to use Bitcoin?



How difficult is it to make a Bitcoin payment?

easy

Bitcoin payments are easier to make than debit or credit card purchases, and can be received without a merchant account. Payments are made from a wallet application, either on your computer or smartphone, by entering the recipient's address, the payment amount, and pressing send. To make it easier to enter a recipient's address, many wallets can obtain the address by scanning a QR code or touching two phones together with NFC technology.



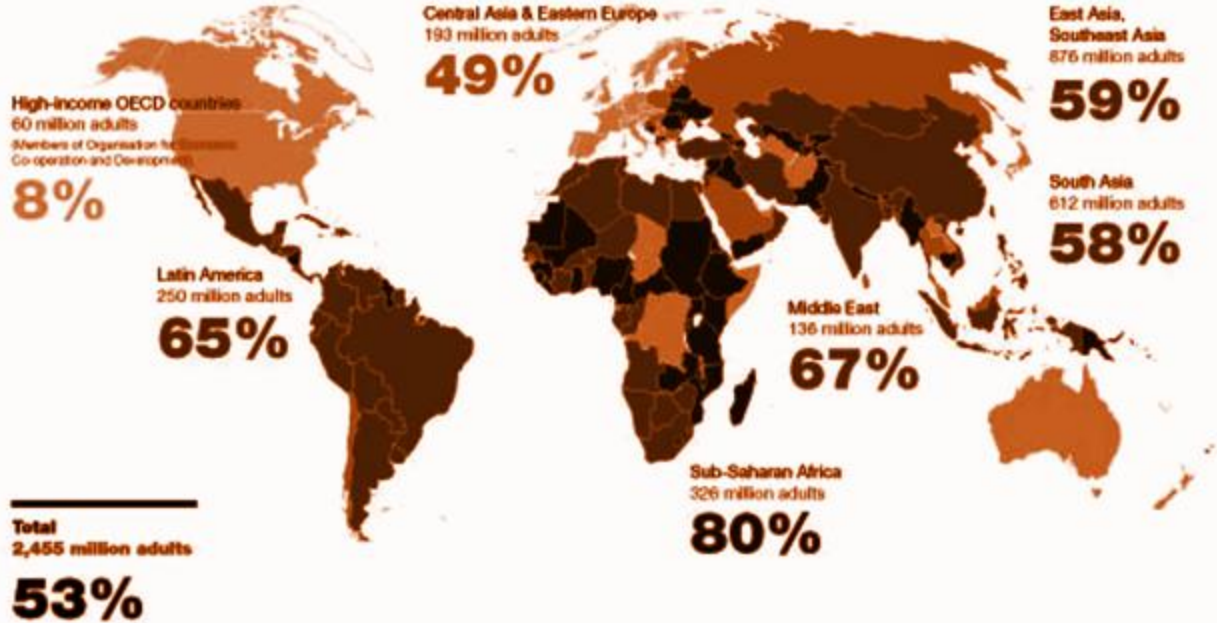
Bank the unbanked

53% of total adult population do not use formal or semiformal financial services

Percentage of total adult population who do not use formal or semiformal financial services

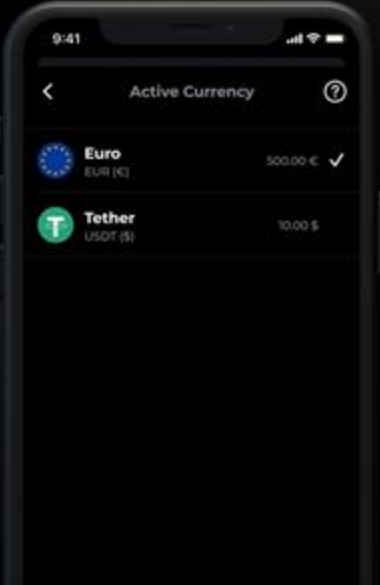
0-25% 26-50% 51-75% 76-100%

Estimates used to calculate regional averages



Remittance

Bitcoin allows transmission of any amount of money cross border with tiny fees.



strike

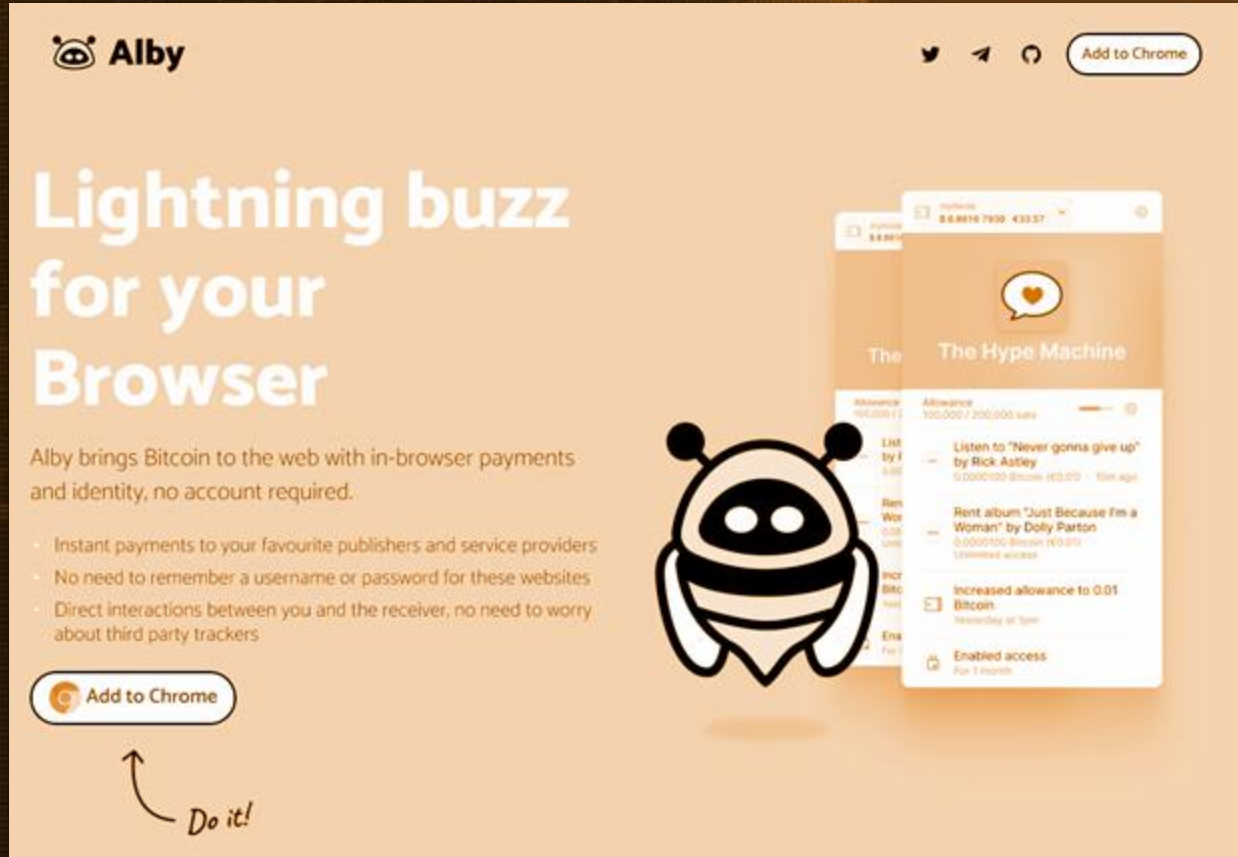
Payments without borders

Bitcoin icon, Tether icon, USD, EUR, GBP, CHF

Sign up for early access:
global.strike.me

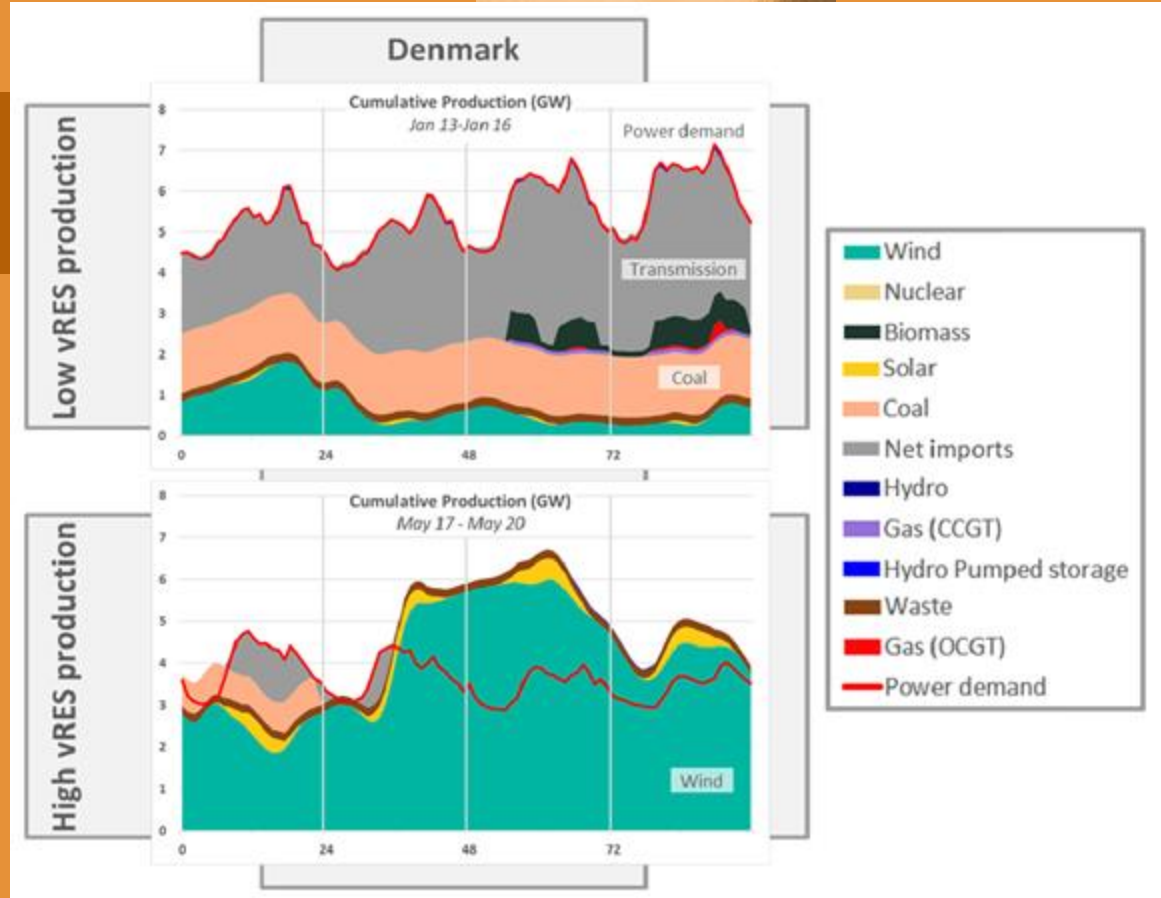
Micro-payments

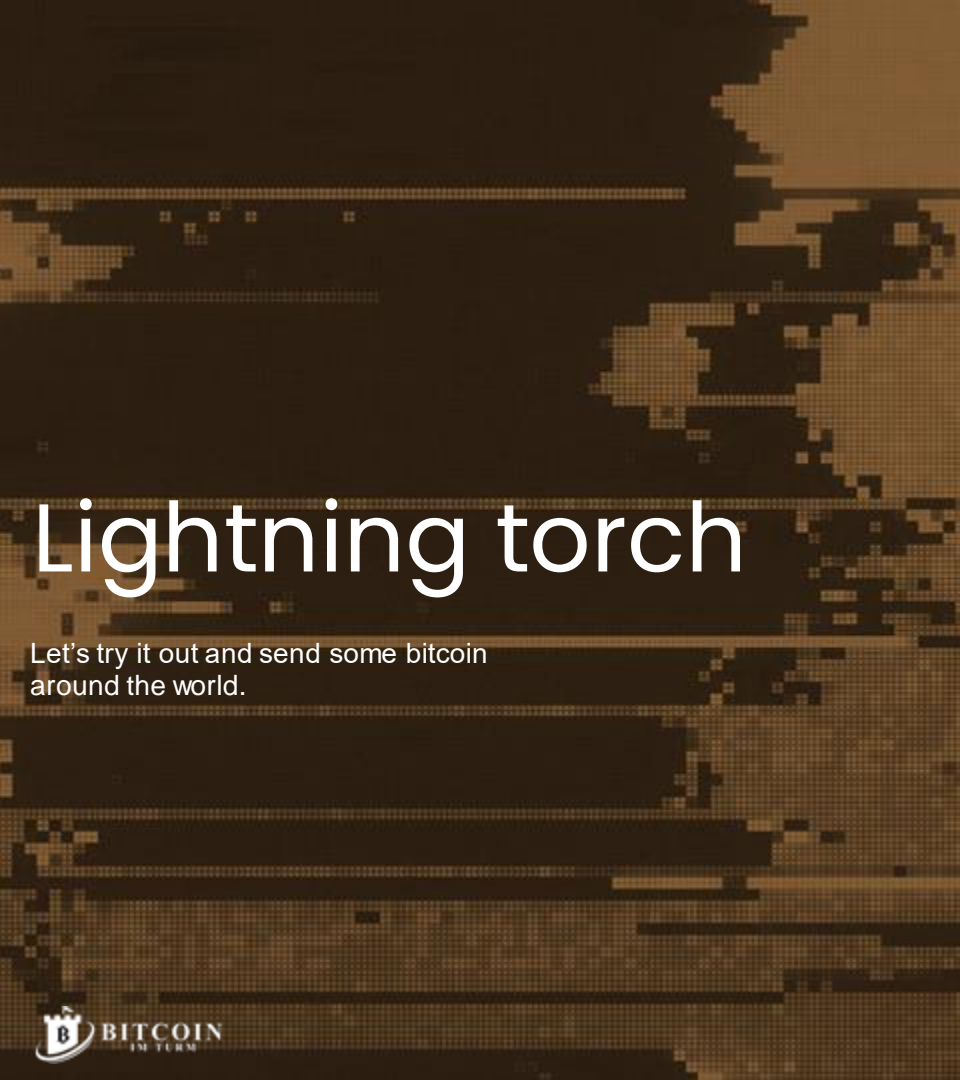
Bitcoin enables microtransactions that can unlock web content or used for simple tipping.

A mockup of the Alby website interface. At the top left is the Alby logo (a bee icon) and the name 'Alby'. At the top right are social media icons for Twitter, Telegram, and Discord, followed by an 'Add to Chrome' button. The main heading is 'Lightning buzz for your Browser'. Below this, a paragraph states: 'Alby brings Bitcoin to the web with in-browser payments and identity, no account required.' A list of features follows: 'Instant payments to your favourite publishers and service providers', 'No need to remember a username or password for these websites', and 'Direct interactions between you and the receiver, no need to worry about third party trackers'. At the bottom left is another 'Add to Chrome' button with a hand-drawn arrow pointing to it and the text 'Do it!'. On the right side, there is a large illustration of the Alby bee mascot and two overlapping smartphone screens. The top screen shows a music player interface for 'The Hype Machine' with a list of songs: 'Listen to "Never gonna give up" by Rick Astley', 'Rent album "Just Because I'm a Woman" by Dolly Parton', and 'Increased allowance to 0.01 Bitcoin'. The bottom screen shows a similar interface with a 'Enabled access' button.

Reshaping the energy sector

Bitcoin mining allows consumption of electricity overproduction that can make renewable energies more profitable.





Lightning torch

Let's try it out and send some bitcoin around the world.



21 Lessons



What I've Learned From
Falling Down the Bitcoin Rabbit Hole

Do your own reading.

Links to can be found in the notes of each slide.