



# Blockchain 101

Anyone, if you have questions/info requests or see other material that you find useful please add it in your comments to this document

## I. Introduction

### A. Blockchain Generally

1. [Blockchain in Two Minutes](#) (2m) (Video)
2. [Blockchain Explained - 5 Levels](#) (17.5m) (Video)
3. [Blockchain Overview](#) (11m) (Medium Blog Post)
4. [Blockchain Explained](#) (3min) (post)

### B. Bitcoin

1. [What is Bitcoin](#) (~9m) (Video)
2. [Bitcoin's Origins](#) (~34m) (Video)
3. [Banking on Bitcoin](#) (1h30m) (Movie)

### C. Ethereum

1. [What is Ethereum](#) (~3m) (Video)
2. [History of Ethereum](#) (~8m) (Video)
3. [Ethereum Tech](#) (25m) (Video)
  - i. Ethereum is PoS now, so a couple of things have changed

D. There are many other ecosystems and tokens, all with their own projects, purposes and stories. Explore them:

Here are a few

(Not financial advice, these are almost all from the last cycle... you can suggest additions):

- SOL - Solana
- GNO - Gnosis
- OP-Optimism
- RUNE- Thorchain
- ARB -Arbitrum
- NEAR - Near
- ADA- Cardano
- Matic-Polygon
- OSMOSIS-Cosmos
- LINK-Chainlink
- UNI- Uniswap
- Doge - DogeCoin

E. NFTs

[What are NFTs](#) (~7m)(Article)

MarketPlaces:

- [Zora](#) Cheap, fun NFTs on the Zora chain
- [Sound](#) Own sounds, free Or low cost
- [Opensea](#) Collectors items

## II. **Getting Started**

A. Buying Crypto - Centralized Exchanges (CEX) - Buying crypto usually happens on centralized exchanges such as [Coinbase](#). There are many centralized exchanges, but not all of them have the ability to service residents in all states. For instance, in New York a Bitlicense is needed to operate a centralized exchange, a reason why famous exchange [Kraken](#) decided to leave.

A Custodial Wallet is the place where crypto is kept after you purchase crypto and keep it on the exchange. When crypto is kept on an exchange in this manner, you do not have full ownership. The crypto is controlled by the exchange. The exchange effectively only gives you an “IOU” for the crypto.

1. Additional Vocabulary / Resources

- i. Centralized Exchange (CEX) vs Decentralized Finance (DeFi)

- ii. Custodial Wallet vs self-custodial
- iii. NY BitLicense

## Understand

- Importance of Crypto values:
  - *Permissionless* - everyone can take part, no ID is required
  - *Censorship resistance*: it runs on code like Bitcoin, perpetual, without human intervention
  - *Trustless*: No trust is needed because it is verified onchain, without intermediaries
  - *Open source*: Projects might claim something i.e. the Coinbase wallet, which is great, claims to be non-custodial. But it is not open source, this claim cannot be proven.
- NY Bitlicense - specific limitations that New Yorkers have to deal with

B. Wallets - Accordingly, the preferred method for storing crypto is Self-Custodial (also known as Non-Custodial). Self-custody, versus storing leaving your crypto on an exchange allows you to have full control of your crypto.

Self-Custodial/Non-Custodial wallets have several options: Hot and Cold Storage. Simply put, Hot wallet ([Phantom Wallet](#), [TrustWallet](#), [Coinbase Wallet](#)) refers to wallet browser extensions and mobile wallets, Hot, because they are directly connected to the internet. There are many, these ones listed are multi-chain. Tell us what your favorite wallet is by adding a comment.

Cold Storage ([Trezor](#), [Ledger](#)) refers to physical hardware wallets that are internally air-gapped and hence not connected to the internet, even when connected to the computer or phone. YOU SHOULD ONLY BUY COLD STORAGE WALLETS FROM A TRUSTED SOURCE (i.e. directly from the retailer).

See [here](#) for a quick ~3 minute explanatory video on crypto wallets.

Recommendations are usually reflecting an influencers personal opinion or who pays them. Try things out but use caution.

Many people opt to maintain their crypto in Custodial Wallets (i.e. a CEX) when they first start out and then move their crypto to a Non-Custodial Wallet when they feel more comfortable with doing so.

## 1. Additional Vocabulary / Resources

- i. Self-Custodial / Non-Custodial
- ii. Hot Storage
- iii. Cold Storage
- iv. Wallet Recommendations ([here](#))

One of many [wallet overview](#) posts.

### C. Swapping Tokens - Decentralized Exchanges

Many tokens are not available on centralized exchanges or not available in NY because of Bitlicense restrictions. In most cases you can buy them with USDC bought on a Centralized Exchange and then swap on 'Decentralized Exchanges' like [Uniswap](#) (EVM\*\*), [Cowswap](#) (EVM), [Thorchain](#) (Multi\*\*) or [1 inch](#)(Multi). It depends on the pairs what swaps for what.

\*\*EVM= Ethereum Virtual Machine based chains vs Multichains ie Bitcoin, EVMs, Cosmos ect

### 1. Additional Vocabulary / Resources

- i. Decentralized Exchange
- ii. USDC
- iii. Multichain
- iv. Ethereum Virtual Machine

### D. Scams - Common scam narratives include the following:

- *Better than Crypto*- Claims that the token / crypto is “better than bitcoin”;
- *Managed Crypto*- That the the company invests for you - if they have both of your keys and they own your crypto;
- *Airdrops*- You connect your wallet to received “free crypto” and your wallet is wiped clean;
- *Founder Impersonation*- Someone claiming to be a founder or other part of the company, contacts you and asks for sensitive information. **Never** give away your seed phrase.

### 1. Additional Resources / Vocabulary

- i. [How to Avoid Crypto Scams](#) (2024)

\*\*\*\*

### Recommendations:

1. Exchanges offer earn products like staking and other smart ways to increase your money. These can be high risk and often have other implications ie on taxes. Study before jumping in.
2. **Use 2 factor authentication everywhere.**
3. **Never reveal your seed-phrase** to anyone... NO SUPPORT will ever ask you for it. Only scammers will.
4. The rule holds 'If it sounds too good to be true, it usually is'. You can ask questions in the WIB Investment Club

### Scam narratives:

- Claims to be the better bitcoin
- Managed crypto, a company invests for you - if they have your keys and they own your crypto, not you
- Many airdrops, you connect wallet and all is gone

Impersonation of founders, support ect... never give your seedphrase

### Gov information:

[Thinking About Buying the Latest New Cryptocurrency or Token?](#)

\*\*\*\*

### Welcome to the Rabbit Hole

### Podcasts:

- Crypto Casey - Crypto currency for Beginners
- Defiant - Camilla Russo
- The Scoop - Frank Chaparro
- Bankless - David Hoffman, Ryan Adams
- Unchained - Laura Shin
- Law of Code - Jacob Robinson

#### Newsletter:

- Decrypt
- Milk Road

#### Communities:

##### Discord

- [Consensys](#)
- [Music NFT community](#)
- [LexDAO](#)
- [DreamDAO](#) - GenZ and their champions

#### Deep Learning

- [Free MOOC on Digital Currencies](#) Next class starts Feb 5th 2024
- [SheFi](#) Next co-hort starts 3/2024, signup is open
- [Consensys Academy](#)/ free DAO on Discord to learn about Ethereum

#### Twitter:

- [Cointelegraph](#)
- [The Block](#)
- [Coindesk](#)
- [Women in Blockchain](#)
- [SheFi](#)
- [Cami Russo](#)
- [Defiant](#)

#### Telegram:

[Women in Blockchain](#) - General

Meetups;

[Women in Blockchain - NYC](#)

YouTube:

Blockchain- The Future ... overview (2min):

<https://www.youtube.com/watch?v=r43LhSUUGTQ>

Blockchain - tech — Internet of value (6min):

[https://www.youtube.com/watch?v=SSo\\_ElwHSd4](https://www.youtube.com/watch?v=SSo_ElwHSd4)

Crypto Couch - 101

<https://www.youtube.com/@CryptoTutors>

Bitcoin explained... all the way...easy to understand but long (2hrs):

<https://youtu.be/FYo5E7zT-vM>

Bitcoin Talks by Andreas Antonopoulos

<https://www.youtube.com/@aantonop>

Channel- Whiteboard Crypto

<https://youtube.com/@WhiteboardCrypto?si=qVvJsaZege3pzv0b>

Channel- a16z Crypto

[https://youtube.com/@a16zcrypto?si=TKN56\\_Vm1TQM1pY8](https://youtube.com/@a16zcrypto?si=TKN56_Vm1TQM1pY8)

Web3 How We Got Here w/ Chris Dixon

<https://youtu.be/VDYNzOPwi-o?si=JfddLwCl3G1OsSjz>

How to buy:

<https://btcpeers.com/how-to-buy-bitcoin/>

## **Conferences & Talks**

ETH Denver

<https://www.youtube.com/@ETHDenver>

DevCon Ethereum - Foundation Conferences

<https://www.youtube.com/@EthereumFoundation>

Ethereal Conferences

<https://www.youtube.com/@etherealsummit1739>

Blockchain for Social Impact Conference

<https://www.youtube.com/@blockchainforsocialimpactc3818/videos>

Crypto Diversity conference

<https://www.youtube.com/watch?v=aI5bNNreaQc>