ALTCOINS

Our definitive guide to altcoins

COIN RIVET

Independent British blockchain and crypto news

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ALTCOINS EXPLAINED

Bitcoin, **the original cryptocurrency**, still holds the majority of the market cap but that's not to say there isn't a lot of competition in the marketplace.

Bitcoin has often been associated with issues such as scalability, its limited amount of coins, and the high costs of mining. New cryptocurrencies, otherwise known as altcoins, have been created in response to some of these issues and many coins have their own dedicated communities.

We take a look at what altcoins are, the benefits of some of the most popular, and where you can buy altcoins from.

The definition of altcoins

Put simply, an altcoin – or an alternative cojn – is any cryptocurrency that isn't Bitcoin. After the initial success of Bitcoin, other peer-to-peer currencies attempted to replicate the winning formula, each tweaking their currency ever so slightly to address specific issues.

Initially, altcoins had blockchains that were very similar to Bitcoin's. They also used a **Proof-of-Work (PoW) consensus protocol** where miners are rewarded for solving highly complex mathematical problems and had many overlapping features. It was only when the landscape had matured that more creative alternatives appeared. We have surpassed 1,000 cryptocurrencies, but it seems this is just the beginning.

The history of altcoins

The first altcoin, Namecoin, appeared in 2011 and had many similarities to Bitcoin. Not only was it built on the same code but it also had the same number of coins. Rather than in the make-up, differences lay in the intention of the coin.

While Bitcoin wanted to initiate a new era in the payments industry, Namecoin focused more on fighting censorship and protecting anonymity.

Although intentions for coins tend to differ, many altcoins have a lot in common with Bitcoin. Many altcoins simply change some of the built-in features of Bitcoin.

Litecoin, for example, positioned itself as the silver to Bitcoin's gold. Built around Bitcoin's code, it focused on delivering faster transactions of 2.5 minutes instead of 10, using a different hashing algorithm and had a coin supply four times higher than Bitcoin's.

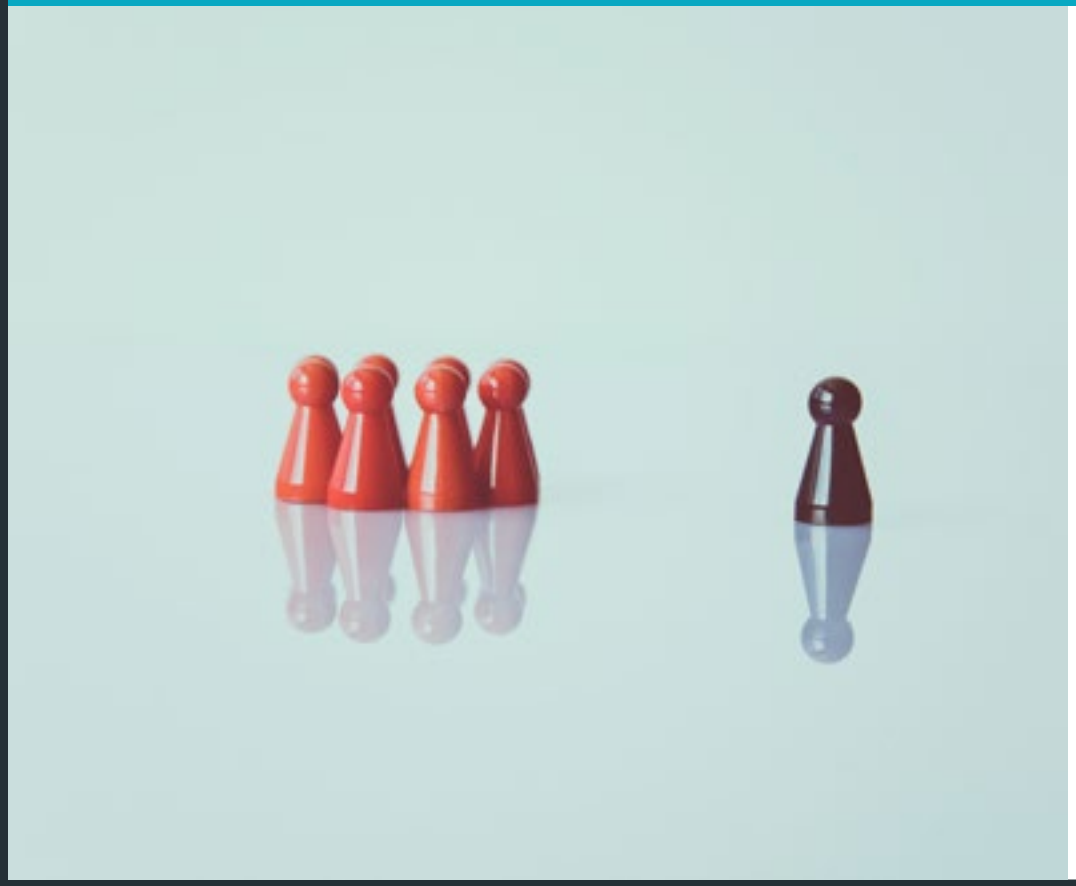
At the other end of the spectrum, some altcoins have been created as a result of changes in the industry. Ethereum, for example, was created as a result of a growing frustration with the homogeneity of the market.

Creator Vitalik Buterin set out to build a custom blockchain that could support a global infrastructure for the transfer of value and ownership in the form of smart contracts. Ethereum has a dedicated community and it is **often seen as Bitcoin's main competition.**

There are many other altcoins to discuss and we'll explore these a little later on in this guide.

WHAT DISTINGUISHES ALTCOINS?

Altcoins are often launched with a specific theme or intention in mind.
In general, altcoins look to address issues with stability, privacy and alternative payment methods.



Altcoins often differ from each other and from the original cryptocurrency coin through:

- Partnerships: altcoins that partner with well-established companies have a higher likelihood of success
- Consensus protocols: proof of work and proof of stake
- Platform: based on Bitcoin's (or Ethereum's) blockchain and custom-built solutions
- Mining process: how miners are rewarded and how difficult their activity is
- Developer team: what expertise is behind the project
- Community: how active and engaged they are

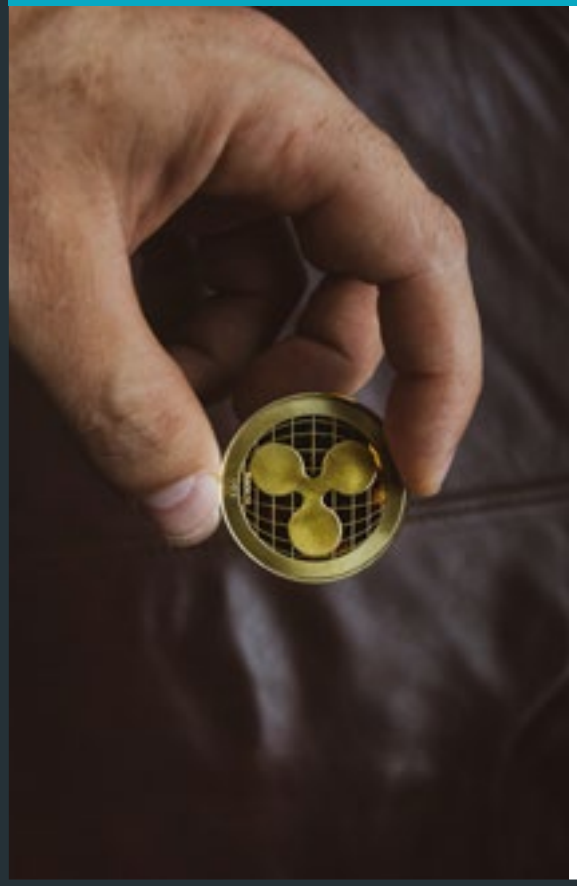
Why do altcoins exist?

Some hardcore Bitcoin purists defend that no cryptocurrency can ever hope to replace Bitcoin as the top crypto. In their view, altcoins are a waste of time, money and effort. The market, as you may have guessed, doesn't seem to share their opinion.

Altcoins exist in many shapes and sizes, and each in their own way is trying to go a step further than Bitcoin. They might use different algorithms and protocols, but each is trying to find a better way of doing things. No two altcoins are precisely alike.

THE TOP FIVE ALTCOINS

New altcoins come to market every month. While some quickly fall out of favour, other altcoins have gained a lot of popularity and a good share of the market cap. Below, we provide an overview of the top five altcoins and the benefits they deliver.



1. Ripple (XRP)

Ripple is a real-time gross settlement system (RTGS), currency exchange, and remittance network. It uses a common ledger which is managed and maintained by a network of independently validating nodes that can belong to anyone from individuals to banks. Ripple is based on a shared public database which makes use of a consensus process between validating servers to ensure integrity.

At its core, Ripple is not a **blockchain**, as it uses a HashTree to summarise data into a single hash that is compared across nodes to provide consensus. Unlike Bitcoin, there is no actual mining and energy expenditure as nodes don't compete among each other to find the hash, but rather listen to other nodes for confirmations.

The goal of the Ripple network, or RippleNet, is to connect banks and payment providers, allowing one frictionless experience for sending and receiving money globally. The Ripple cryptocurrency, XRP, offers banks and payment providers a reliable, on-demand option to source liquidity for cross-border payments. The XRP token is used within the Ripple ledger mainly to pay fees and to avoid spam, although at its core it still lacks some utility functionality.

2. Ethereum (ETH)

Ethereum is a decentralised smart contract platform. Like Bitcoin, the Ethereum network has a token (Ether), a blockchain, nodes and miners. However, unlike Bitcoin the blockchain maintains consensus for a 'virtual computer' dubbed the EVM (Ethereum Virtual Machine). Distributed Smart contracts can be created and deployed on the EVM.

Ether is the native token on the Ethereum network. There are around 100 million ether on the network today and the token is used to incentivise miners to run their mining hardware.

Ether tokens can be used for payments between users like Bitcoin, but it also can be used to power smart contracts. When running a smart contract, the Ether is turned into 'gas', to then power a smart contract on the EVM.

3. EOS

EOS.IO is a blockchain architecture designed to enable vertical and horizontal scaling of decentralised applications, by creating an operating system-like construct upon which applications can be built. The software provides accounts, authentication, databases, asynchronous communication, and the scheduling of applications across many CPU cores or clusters.

The resulting technology is a blockchain architecture that may ultimately scale to millions of transactions per second, eliminate user fees, and allow for quick and easy deployment and maintenance of decentralised applications in the context of a governed blockchain.

EOS.IO operates as both a base-layer blockchain and as a smart contract platform. The protocol works like a decentralised operating system, intended for the deployment of industrial-scale decentralised applications through a decentralised autonomous corporation model. The smart contract platform claims to eliminate transaction fees and also conduct millions of transactions per second.

EOS tokens have the purpose of supporting the EOS.IO blockchain by distributing resources to token holders. There are three broad classes of resources that are consumed by applications:

- Bandwidth and log storage (Disk)
- Computation and computational backlog (CPU)
- State storage (RAM)

4. Bitcoin Cash

Bitcoin Cash was the first major Bitcoin code fork and airdrop. As a result of the forked ledger, everyone holding Bitcoin on the BTC chain was credited with the equivalent amount of Bitcoin Cash, when its blockchain launched.

The standalone blockchain for Bitcoin Cash started with a group of miners who moved to produce POW (proof of work) and blocks compatible with the protocol implementations for Bitcoin ABC, Bitcoin Unlimited and Bitcoin XT nodes. These three node protocols stayed in consensus with the new blocks but the majority of nodes (under the Bitcoin core protocol) rejected the blocks, and mined from these miners.

At the point the chain split in two, it was the first time you could send transactions of funds that you held in Bitcoin to either the original BTC blockchain and also the new BCH blockchain. People assumed they got free money with their BCH airdrop.

Bitcoin Cash today is a 100% independent cryptocurrency; its price is not dependant on that of the original Bitcoin.

5. Litecoin (LTC)

Created by a former Google employee and later CTO of Coinbase, Charlie Lee, Litecoin was one of the first serious altcoin projects developed with an actual purpose. While Bitcoin was seen as long-term store of value, Litecoin was created for everyday purposes. In spite of its close relationship with Bitcoin, there are some key differences between the two cryptocurrencies.

The Litecoin Network aims to process a block every 2.5 minutes, rather than Bitcoin's 10 minutes. The developers claim that this allows Litecoin to have faster transaction confirmation. Litecoin also uses Scrypt in its proof-of-work algorithm, a sequential memory-hard function requiring more memory than an algorithm which is not memory-hard.

Litecoin's goal is to be the decentralised money of the internet – free of censorship, permissionless, and open to anyone who wishes to join. They aim to offer private, secure, borderless payments for pennies – anywhere, anytime, and fully controlled by LTC holders. Litecoin offers the following:

- Real-time settlement (150 seconds)
- Cryptographically secure transactions
- Payments that move like email
- International reach with a single integration
- The best solution for micro-payments
- Quick and easy LTC payment channel integration

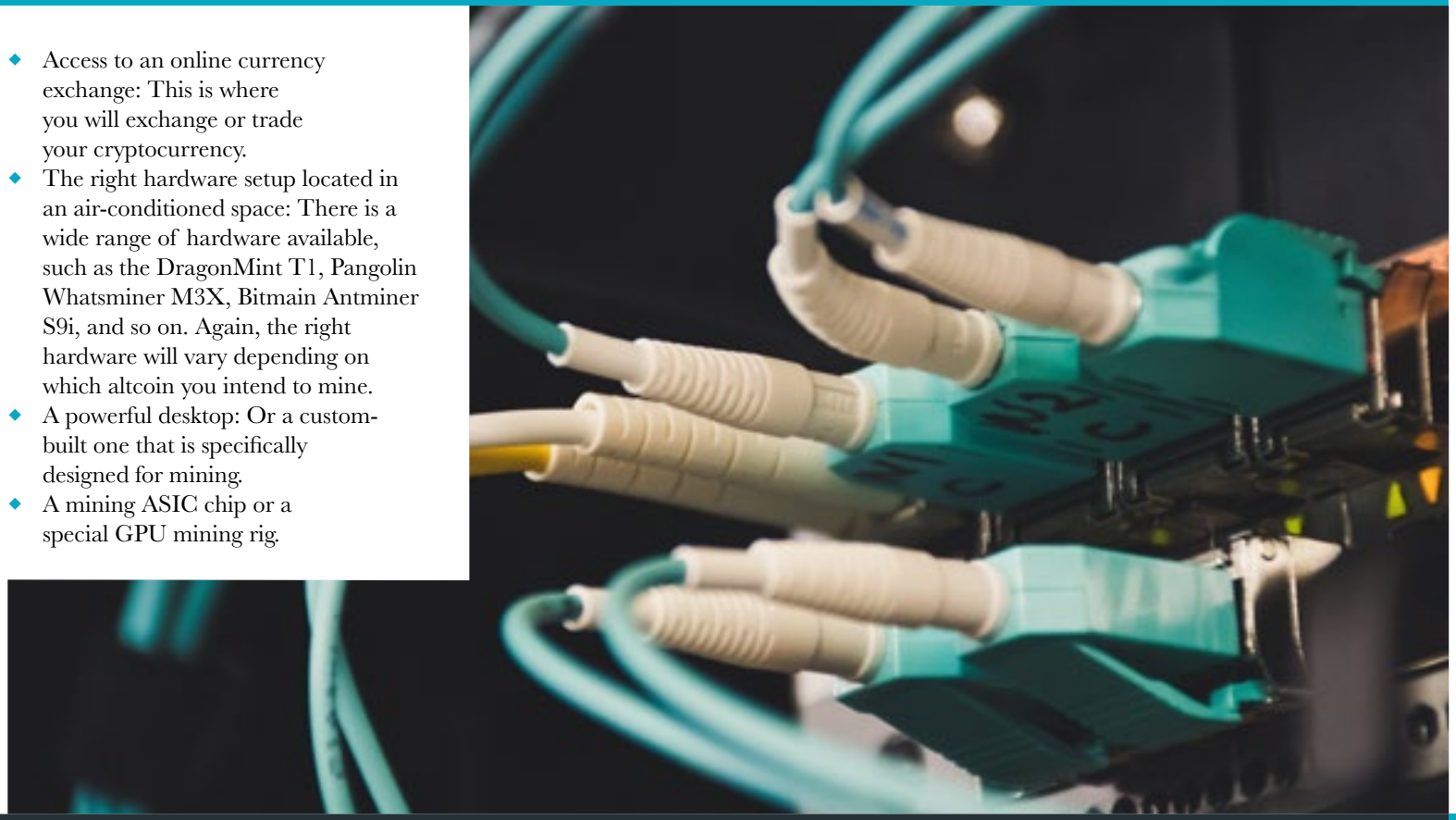
HOW TO MINE ALTCOINS

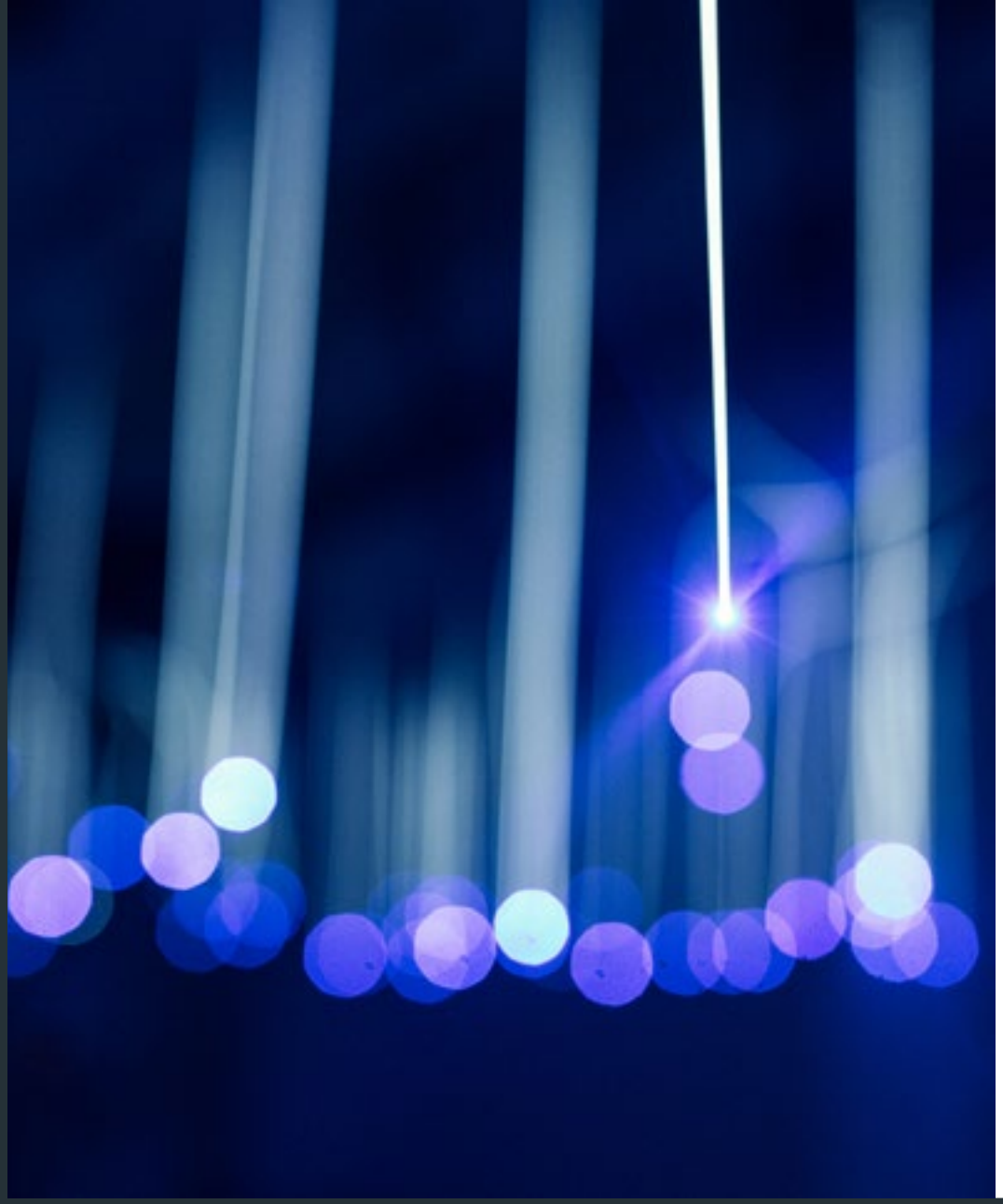
With so many altcoins on the market, you could argue that cryptocurrency is becoming more accessible to a wider audience. However, be warned that mining for altcoins can be risky business.

Before you start mining, it's important to know that Bitcoin's movement on the market will impact all other currencies. If Bitcoin is experiencing a bull run, other altcoins tend to follow.

What do you need to mine altcoins?

- A cyptocurrency wallet: Without one of these, you'll have no location to store your newly acquired tokens.
- Free mining software: For mining altcoins, you'll want to do some research to work out which software is best for the altcoin you intend to mine.
- Access to a mining pool: A pool is where a group of miners get together to combine their computers/devices to bolster their chances of cracking the cryptographic puzzles to add a fresh transaction to the blockchain, thereby granting them the reward tokens and the transaction fee.
- Access to an online currency exchange: This is where you will exchange or trade your cryptocurrency.
- The right hardware setup located in an air-conditioned space: There is a wide range of hardware available, such as the DragonMint T1, Pangolin Whatsminer M3X, Bitmain Antminer S9i, and so on. Again, the right hardware will vary depending on which altcoin you intend to mine.
- A powerful desktop: Or a custom-built one that is specifically designed for mining.
- A mining ASIC chip or a special GPU mining rig.





Information for miners

For those looking to mine new altcoins, you should know that it's significantly easier than mining Bitcoin. This is because the current network hash rate for mining Bitcoin is exceedingly higher than many altcoins. With a lower network hash rate, the mining process tends to be quicker.

Each altcoin will have different requirements for mining. Below, we look at examples such as Litecoin and Ethereum.

Litecoin

Litecoin, at its core, is similar to Bitcoin in its code, but whereas Bitcoin allows transactions to be approved every 10 minutes, Litecoin allows them to be approved every 2½ minutes. Furthermore, Litecoin allows for a grand total of 84 million coins to be minted, which is exactly four times higher than Bitcoin. Immediately, you can see that the odds of mining Litecoin are greater than the odds for mining Bitcoin.

Whereas Bitcoin relies on SHA-256, Litecoin instead relies on scrypt technology, which ultimately is more memory intensive than other proof-of-work algorithms. This does come with a drawback, as the use of scrypt demands that mining hardware like a GPU mining rig is required, which uses significantly greater processing power. So, while Litecoin is faster and, in theory, easier to acquire than Bitcoin, it comes at the cost of needing huge amounts of processing power.

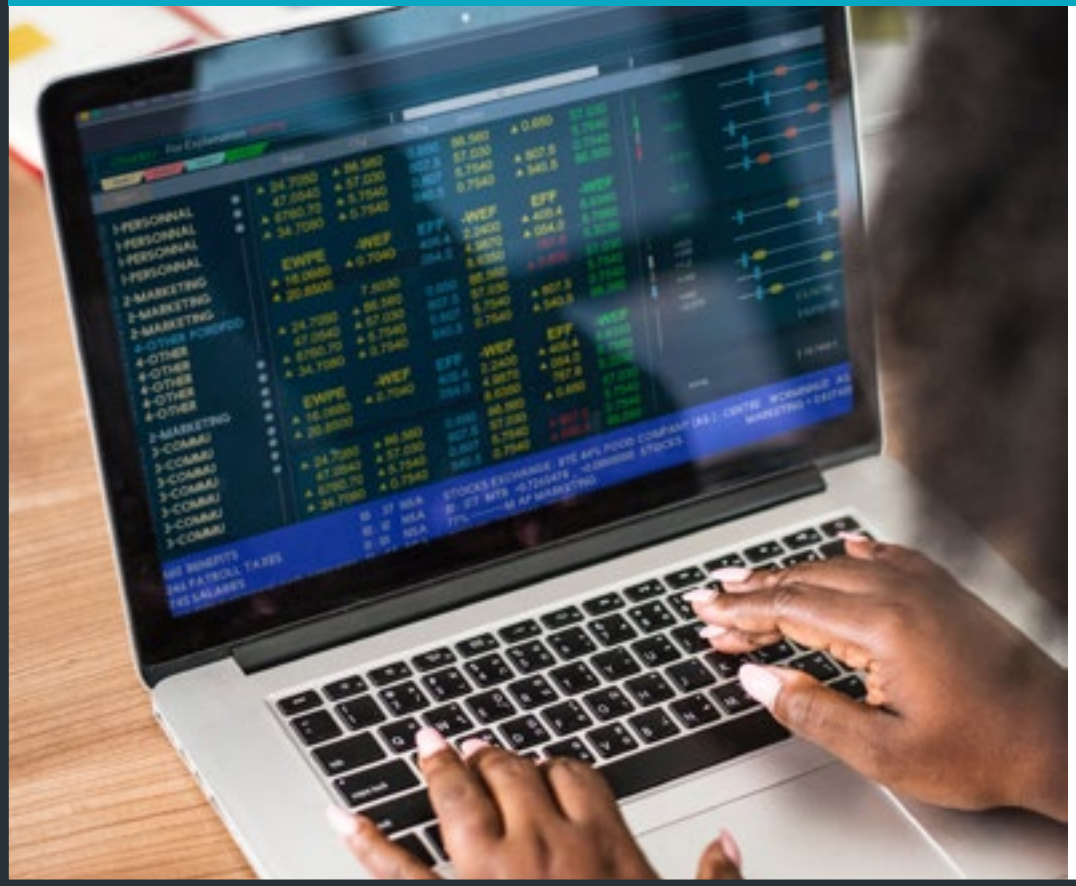
Ethereum

One of the more well-known altcoins is Ethereum. This coin relies on its own platform-specific cryptographic token, Ether. In essence, Ether can function in multiple ways – it can be traded like any other digital currency and it can even run applications within it and monetise work. It is noticeably quicker for new transactions and coins to be created due to the fact new blocks of data are approved every 15-20 seconds.

This guide is certainly not an exhaustive list of altcoins. There are so many out there today with more and more popping up as time goes on. Litecoin, Dogecoin, and Ethereum are some of the more well-known altcoins, but that does not necessarily guarantee they are the best. As always, cryptocurrency is an investment, and there is a huge risk that your tokens won't increase in value but rather decrease. Do keep in mind that the hardware you require can vary and that there is no certainty that you won't end up losing money.

FIVE EXCHANGES TO BUY ALTCOINS

The cryptocurrency space is cluttered with more than 200 exchanges, each with their unique style and benefits.



Established exchanges like Coinbase, Bitfinex and Gemini offer a gateway to users to trade their fiat cash for Bitcoin and other cryptocurrencies, while the market leading Binance offers a variety of cryptocurrencies to be traded in pairs with Bitcoin, Ethereum, USD-Tether and many others.

With a wealth of competitors in the space it can be a daunting task to choose which cryptocurrency exchange is best for you. It's always important to consider market fees, volume, liquidity and the security protocol at each specific exchange.

Bitfinex

Starting off the list is **Bitfinex**, who have cemented themselves as one of the leading Bitcoin and cryptocurrency exchanges over the past six years, offering high-liquidity to both retail and institutional investors. Their slick user interface complements their spot and margin trading platform, which facilitates an average of between $2.5 billion and $10 billion weekly volume. It's also worth noting that there is a $10,000 minimum deposit to open an account at Bitfinex, but that can be withdrawn without losing access to the exchange.

Gemini

The Winklevoss twins launched the US-based digital asset exchange **Gemini** in 2015, earning plaudits from industry peers after becoming the first licensed Ethereum exchange based in the United States. Gemini is open to both retail and institutional investors, offering Bitcoin, Ethereum and Zcash pairs with USD, which can be deposited and withdrawn on the site.

Binance

Binance CEO Changpeng Zhao, **who prefers the nickname 'CZ'**, rose to cryptocurrency stardom in 2017, rapidly growing the Hong Kong-based exchange to a point where 'a couple of million' new users were signing up every week in January 2018. The impeccably designed exchange has a broad range of cryptocurrency pairs available to trade, boasting over 380 pairs as well as $32 million backed stable coin TrueUSD.

Bitmex

Bitmex is a derivatives market that offers perpetual swaps and Bitcoin futures that can be traded with up to 100x leverage. Because of their high leverage offerings, Bitmex regularly tops the list of exchanges for highest daily volume, with their total rarely dropping below $1 billion. The high level of liquidity makes it easier for traders to enter and exit positions, however the site gained criticism in 2018 as occasions of 'server overload' made it impossible for users to trade during volatile price action.

Coinbase

San Francisco-based exchange **Coinbase** was instrumental in Bitcoin's rise to all-time high in 2017, becoming the **most downloaded iPhone app on the US App Store in December.** Their user-friendly approach, culminating in their impeccably designed app, saw Coinbase become a firm favourite among retail investors. Coinbase offer GBP, EUR and USD deposit and withdrawal features as well as an internal wallet that allows their users to store their cryptocurrency portfolio on the app.

One notable downside of Coinbase is their high fees as they charge users 1.49% for every time they buy or sell cryptocurrencies.

CONCLUSION

There are always new altcoins coming onto the market, making cryptocurrency far more accessible to a wider audience.

Not only will you find a group of enthusiasts who share your passions, but you'll find an innovative community that is always looking for new solutions. To get the most from the market, you can keep up with the our **dedicated altcoin news** and how-to guides.

Bringing you news, analysis, opinion and insight from the fast-moving blockchain world. Our team of journalists and contributors cover the likes of cryptocurrencies, wallets, exchanges and ICOs across a wide range of sectors including retail, fintech, banking and gaming. We go beyond the press releases and marketing hype to tackle all the industry topics that matter.

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