**Bitcoin**

A tale of a monetary revolution by Michael Banks

This is a tale worth telling for it foretells the future of money and governance. Bitcoin is a digital currency and has its roots in a 21 century mystery, and who doesn't love a good mystery? Let me take you back to 2008 when an article appeared in a financial journal with a by-line of Satoshi Nakamoto (a nom de plume) describing a mathematical formula that would produce an inviolable ledger for financial transactions; a ledger which could not be altered and could not be corrupted. This amazing ledger would not be located in one computer in some bank vault but would be distributed to thousands of computers around the world simultaneously, each copy of the ledger checking with the others to confirm they were all the same. Any attempt to alter one of the ledgers on somebody's computer would be immediately discovered and foiled. The elimination of fraud and corruption in transactional business was the Holy Grail for accounting, the financial industry was very interested. This new way of looking at accounting was called “blockchain a distributed ledger”. Blockchain is going to change the way business does everything and blockchain also made cryptocurrencies viable.

The blockchain software is very complicated and extremely computer intensive and in order to facilitate this type of distributed ledger lots of people had to run a high speed computer at its maximum capacity to do the calculations required to enter each block into the blockchain and then, verify the transaction. It is at this point that bitcoins are minted from that chain. The Bitcoin was compensation to the person, who was setting up the computer, paying the electric bills and running the software that managed the ledger. Execute so many transactions and that same software issues a unique string of code that is the Bitcoin (this is called mining bitcoins), do a lot of transactions you get a lot of bitcoins. At first, for every block the “miner” solved the “miner” received 50 bitcoins. When the whole system was put into motion, around 2011, the “value” of the bitcoin was determined by the owner of that coin. So as a currency bitcoins aren't very reliable, the “value” of the coin depended on who you were trading them with. One of the first purchases made with these newly minted coins was between two of the miners of 10,000 Bitcoins for a couple of Papa John’s pizzas. These bitcoins were not physical objects but a single digital number encrypted with a 256bit cypher and absolutely unique and verifiable. These "coins" accumulate in what is known as a digital wallet (also not physical). So the owner of one of these wallets can type in a transaction on his smartphone or computer and send these coins to another digital wallet without any middleman (like a bank or government). As long as both parties agree on the value of the coin, everybody's happy. These peer-to-peer transactions are affectively anonymous, immediate and invisible to the government (for now). This kind of “currency” is a huge threat to the ability of government to maintain control over “money”. Hence, a monetary revolution in the making…

So how do these “coins” become “real money”? Most digital wallets are linked to a service called an exchange. The exchange manages your digital wallet and the digital wallet is further linked to a credit card or a bank account. If you want to sell one of these coins the exchange finds a buyer at the current value, they sell the coin and send the money to your bank account. This works both ways, of course, when you want to acquire these coins you type in an order to the exchange and they buy the coins and put them in your wallet then deduct the money from your bank account. Simple, right? Not so fast... The concept of a distributed inviolable ledger is so attractive to virtually every business on Earth that there are thousands of companies that have started to run the "Bitcoin" type software to set up a blockchain ledger and they sell their services to other companies around the world. Every time they complete a transaction, new coins are generated, each one of these blockchain companies offer different services and have a different name for their coins, and there are currently more than 4000 different coins (or tokens or cryptocurrencies) available on an exchange. The Bitcoin token was the first and is still the most valuable but there are a lot of new blockchain companies out there with names like Ethereum, Luna, Dogecoin and Polkadot and they all have great potential.

If you think of these coins as collectible postage stamps or trading cards and not “currency”, it makes a lot more sense why speculators make up most of the market and the perceived value of the coins fluctuate so much.

Most cryptocurrency at this time are limited in quantity, by design, the software formula generates a finite number of coins, for Bitcoin that number is 21 million coins, then no more bitcoins will be generated or “mined” and the “miners” will switch to a fee based system of compensation per transaction. As supply and demand demands, the value of a coin goes up as the availability of coins goes down and that is why many large institutions have chosen to invest in these finite tokens. Trying to figure out which of the tokens are going to increase in value, of course, is the tricky part. Watching the business model of a blockchain company can suggest how successful it’s tokens or coins will become. Someday there will be a cryptocurrency designed to be stable and regulated, one that does not fluctuate at the whims of speculators but for now, a cryptocurrency’s “value” is purely subjective. If you're interested in getting involved you first have to get yourself a digital wallet and maybe a four leaf clover. (See references below)

So, about that mystery? Well, that mystery persists, to this day, because nobody knows who authored that original article about how to form a blockchain accounting system. He (or she) has never come forward to claim credit for their part in this monetary revolution. Oh, and that very first digital wallet setup by Satoshi Nakamoto... it’s believed to have over a million coins in it.

To recap this long story…

As compensation to the people who manage the computers, which execute transactions in this new accounting system called blockchain, the software “pays” the operators (or miners) in digital tokens or coins like Bitcoin. The miners trade or sell these coins.

Coins are stored in a digital wallet which can be managed by an exchange or can reside in the form of a program on your computer or smartphone.

Your digital wallet can be used to complete purchases or to trade coins with other digital wallets (like trading cards). You can have your digital wallet managed by an exchange and have it linked to your bank account. One of the advantages to a cryptocurrency exchange is that you can buy and trade different types of cryptocurrencies and quickly convert them into cash when needed. Exchanges are similar to stockbrokers. But exchanges are not necessary to own or trade cryptocurrencies.

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**Digital wallets**

There are dozens of companies offering digital wallets these days including Google, PayPal, Samsung and even B of A. All of them provide a variety of financial services to make financial transactions easier, like using your phone to pay at the store, but these wallets may not work well with cryptocurrencies. Keep in mind, all of the cryptocurrency exchanges include a digital wallet with the account but if you want a stand-alone wallet this web site has a list of the ones they think are the best.

<https://www.thebalance.com/best-bitcoin-wallets-4160642>

**Cryptocurrency exchanges**

**Coinbase**

<https://www.coinbase.com/>

While the cryptocurrency industry has been fraught with fraudulent coins and shady exchanges, Coinbase has largely avoided any controversy. Coinbase is the biggest and offers an extremely easy-to-use exchange, greatly lowering the barrier to entry for cryptocurrency investment, which is typically seen as confusing and convoluted.

**CashApp**

<https://cash.app/>

Cash App is a peer-to-peer money transfer system much like [Venmo](https://www.investopedia.com/articles/personal-finance/010715/venmo-its-business-model-and-competition.asp). This type of service allows users to split food, pay rent to a roommate, or even shop online at a retailer that supports Cash App. Cash App can essentially act as a bank account and users can have their own Cash App debit cards. This service is very convenient by itself, but Cash App has even more features. Visit the website for details.

**Bisq**

<https://bisq.network/>

Bisq is a downloadable software and peer-to-peer decentralized Bitcoin and crypto exchange. This means that Bisq has no central point of failure and cannot be taken down, much like Bitcoin itself. Bisq is non-custodial, which means that no one other than the user touches or controls the user’s funds. This differs from centralized exchanges, like Coinbase, as Coinbase controls the user’s funds in a custodial account to which the user does not have the private keys. In that scenario, Coinbase holds the right to seize your funds if it deems your account activity suspicious, whether or not the activity is actually illegal in your location.

These are just three of the most respected exchanges serving the cryptocurrency industry, there are hundreds more and it would behoove you to do your own research.

**Tax laws** surrounding cryptocurrency are complicated and evolving so if you don’t want to lock horns with the IRS, I strongly recommend investing in some crypto accounting software that can generate the right forms for you at the end of the year. Here’s a link to some of the best;

<https://sourceforge.net/software/crypto-tax/>