# How Does Cryptocurrency Work?

Cryptocurrency is an encrypted, decentralized digital currency transferred between peers and confirmed in a public ledger via a process known as mining.

Below, we take a simplified look at how cryptocurrencies like bitcoin work. First, let’s review the basics and essentials of cryptocurrency, and then we will do an overview of the other properties that have made cryptocurrency what it is today.

## The Cryptocurrency Basics

To understand how cryptocurrency works, you’ll need to learn a few basic concepts. Specifically:

Public Ledgers: All confirmed transactions from the start of a cryptocurrency’s creation are stored in a public ledger. The identities of the coin owners are encrypted, and the system uses other cryptographic techniques to ensure the legitimacy of record keeping. The ledger ensures that corresponding “digital wallets” can calculate an accurate spendable balance. Also, new transactions can be checked to ensure that each transaction uses only coins currently owned by the spender. Bitcoin calls this public ledger a “[transaction block chain](https://cryptocurrencyfacts.com/what-is-a-blockchain/).”

Transactions: A transfer of funds between two digital wallets is called a transaction. That transaction gets submitted to a public ledger and awaits confirmation. When a transaction is made, wallets use an encrypted electronic signature (an encrypted piece of data called a cryptographic signature) to provide a mathematical proof that the transaction is coming from the owner of the wallet. The confirmation process takes a bit of time (ten minutes for bitcoin) while “miners” mine. Mining confirms the transactions and adds them to the public ledger.

Mining: Quite simply, [mining is the process of confirming transactions](https://cryptocurrencyfacts.com/bitcoin-mining-basics/) and adding them to a public ledger. To add a transaction to the ledger, the “miner” must solve an increasingly-complex computational problem (like a mathematical puzzle). Mining is open source so that anyone can confirm the transaction. The first “miner” to solve the puzzle adds a “block” of transactions to the ledger. The way in which transactions, blocks, and the public blockchain ledger work together ensure that no one individual can easily add or change a block at will. Once a block is added to the ledger, all correlating transactions are permanent, and they add a small transaction fee to the miner’s wallet (along with newly created coins). The mining process is what gives value to the coins and is known as a [proof-of-work system](https://cryptocurrencyfacts.com/proof-of-work/).

## The Anatomy of Cryptocurrency

Although there can be exceptions to the rule, there are some factors (beyond the basics above) that make cryptocurrency so different from the financial systems of the past:

Adaptive Scaling: Adaptive scaling means that cryptocurrencies are built with measures to ensure that they will work well in both large and small scales.

Adaptive Scaling Example: Bitcoin is programmed to allow for one transaction block to be mined approximately every ten minutes. The algorithm adjusts after every 2016 blocks (theoretically, that’s every two weeks) to get easier or harder based on how long it took for those 2016 blocks to be mined. So if it only took 13 days for the network to mine 2016 blocks, that means it’s too easy to mine, so the difficulty increases. However, if it takes 15 days for the network to mine 2016 blocks, that shows that it’s too hard to mind, so the difficulty decreases.

Other measures are included in digital coins to allow for adaptive scaling including limiting the supply over time (to create scarcity) and reducing the reward for mining as more total coins are mined.

Cryptographic: Cryptocurrency uses a system of cryptography (AKA encryption) to control the creation of coins and to verify transactions.

Decentralized: Most currencies in circulation are controlled by a centralized government so their creation can be regulated by a third party. Cryptocurrency’s creation and transactions are open source, controlled by code, and rely on “peer-to-peer” networks. There is no single entity that can affect the currency.

Digital: Traditional forms of currency are defined by a physical object (USD existing as paper money and in its early years being backed by gold for example), but cryptocurrency is all digital. Digital coins are stored in digital wallets and transferred digitally to other peoples’ digital wallets. No physical object ever exists.

Open Source: Cryptocurrencies are typically open source. That means that developers can create APIs without paying a fee and anyone can use or join the network.

Proof-of-work: Most cryptocurrencies use a proof-of-work system. A [proof-of-work scheme](https://cryptocurrencyfacts.com/proof-of-work/) uses a hard-to-compute but easy-to-verify computational puzzle to limit exploitation of cryptocurrency mining. Essentially, it’s similar to a difficult to solve “captcha” that requires lots of computing power. NOTE: Other systems like proof-of-work (such as proof-of-stake) are also used.

Pseudonymity: Owners of cryptocurrency keep their digital coins in an encrypted digital wallet. A coin-holder’s identification is stored in an encrypted address that they have control over – it is not attached to a person’s identity. The connection between you and your coins is [pseudonymous rather than anonymous](https://cryptocurrencyfacts.com/is-bitcoin-anonymous/) as ledgers are open to the public (and thus, the ledgers could be used to glean information about groups of individuals in the network).

Value: For something to be an effective currency, it has to have value. The US dollar used to represent actual gold. The gold was scarce and required work to mine and refine, so the scarcity and work gave the gold value. This, in turn, gave the US dollar value.

Cryptocurrency works similarly regarding value. In cryptocurrency, “coins” (which are nothing more than publicly agreed on records of ownership) are generated or produced by “miners.” These miners are people who run programs on specialized hardware made specifically to solve proof-of-work puzzles. The work behind mining coins gives them value, while the scarcity of coins and demand for them causes their value to fluctuate. The idea of work giving value to currency is called a “proof-of-work” system. The other method for validating coins is called proof-of-stake. Value is also created when transactions are added to public ledgers as creating a verified “transaction block” takes work as well. Further, value comes from factors such as utility and supply and demand.

## Learning More about How Cryptocurrency Works

If at this point, you feel a little bit confused, don’t worry and don’t give up. Understanding the concepts that are fundamental to cryptocurrency is a challenge. One explanation works for some people, and a different explanation works for others. We all learn in different ways.

The trick with cryptocurrency is not getting worried if you don’t understand it at first – each new video, explanation, or article that you learn from will make your understanding of cryptocurrency clearer until, eventually, it clicks.

To learn more, visit some of the other, more technical pages on our site to dive deeper into the inner-workings of cryptocurrency. You can also watch informational videos about the how cryptocurrency works such as the one below.



Thomas DeMichele on

Here is the advice I’d give.

– Being confused is normal. It takes a good deal of time and effort to wrap your head around the digital ledger of transactions known as block chain (that digital ledger is the most important aspect to understand).

– What is Bitcoin? In simple terms, it is a public digital ledger of transactions secured by cryptography where you store passwords that relate back to Bitcoins accounted for on the ledger. When you want to send or receive bitcoin, you simply add that transaction to the digital ledger. The way the ledger is secured and distributed is a little complex, but in general the answer is “via cryptography” and “by the ledger being distributed to many users.” Thus consensus and cryptographic puzzles ensure the system.

– There is only one world, first, second, and third ones. 🙂 Cryptocurrency is meant to be a peer-to-peer global currency. It doesn’t rank people based on where they live, it is blind to that sort of thing.

– There is no such thing as easy money. Averaging into small positions in the top coins, especially when the market is down is the best way to grow your wealth. Don’t go chasing too-good-to-be-true pyramid schemes that promise quick returns if you lock your money up. Those scams tend to prey on people from countries where poverty rates are higher. Want to take a good bet, buy Bitcoin low, sell Bitcoin a little higher, on average, over time. In times when the value in your native fiat currency is low, consider holding. One day it could all go away, until then it has a history of recovering to new heights. Don’t get overly emotional about the day to day. Don’t invest more than you can afford to use.

– To become “not confused” it’ll take some work. Have fun researching crypto assets and block chain, charts, markets, and investing strategies. The more you know, the better you’ll be able to navigate the crypto space.

– Do your own investing. Never let someone else invest your money for you. Crypto is all about the user being in the drivers seat. Of course people want to hold your Bitcoin for you… would you not want to hold someone else’s? Don’t fall for that. You hold your Bitcoin, you hold your wallet, and never share your private keys!

I’m going to work on a super simple guide to crypto assets like Bitcoin next week. Any questions people have just list them below and I’ll make sure to cover them.



Thomas DeMichele on

It is like investing in stocks where the top coins are blue chips and alts are penny stocks. Also a little like Forex (foreign exchange currency trading) where it is a cut throat 24 hour global market.

A normal person would want to dollar cost average into a few top coins like Bitcoin, Ether, Litecoin, Ripple, Dash, Monero (do your own research). Ideally they would wait for retractions and then buy, but thus far there has really been no wrong to average into a long term position.

Someone who wants to take risks would learn to read charts and follow the news and look for good buying opportunities in alts, trading BTC, ETH, and Tether (USDT) for alts on a major exchange.

For trading I would always start with Coinbase/GDAX (if you live in a country where this is an option). If you can’t, I think Bittrex, Changelly, Shapeshift, and Binanace are all solid choices for obtaining coins before moving them to a wallet (although there are risks to any exchange that should be researched and considered and there are risks associated with different wallet types). Coinbase/GDAX keeps everything simple, so its a great starting point if you can use it (if not, look for a similar product in your region).

TIP: If you Google “cryptocurrency exchange / wallet in X” where “X” is your nation, you’ll likely get pointed in the right direction reading through the first few listings.

The thing to consider here is that there is a lot of risk and a lack of regulation with trading crypto. So you want to keep most of your coins in cold storage in a wallet (check out Trezor or a paper wallet for example) or, an insured wallet like Coinbase (perhaps even in their vault).

A conservative trader will invest about 1% of their investable income in crypto over time (not all it once) if they want to start their journey (but of course many end up going deeper than that).

Because things are volatile, it makes a lot of sense to average in slowly and cautiously, doing research, and making very small trades at first. Going all-in at the wrong moment can be psychologically difficult. Imagine jumping in right at $5k before Bitcoin fell to $3k, or jumping in at $7.9k before it fell to $5.5k. It isn’t like it didn’t come back, it is only that a big play for a newcomer can leave them spooked. You don’t need to learn lessons the hard way. Average in over a year (or at least a few months) with 1% of your investable funds, learn about stops and trading pairs, and then when you are ready, at that point take the next step.

There is a lot to learn, a lot that can go right, and a lot that can go wrong.

Don’t be scared off from crypto and not join the party, but do enter cautiously and conservativly to avoid the pitfalls.

Happy to answer any questions or offer insight.

PS. Yes the market could crash and you could lose a lot. I really don’t think the value will ever go to zero on Bitcoin or the other top coins… but it could over time on some random alts down the list (by coin market cap… make sure to use coin market cap [//cryptocurrencyfacts.com/exchanges/coinmarketcap-com/](https://cryptocurrencyfacts.com/exchanges/coinmarketcap-com/) ).

PPS. Stay away from coins that ask you to lend them money and get referrals in return for increased payouts (the structure that some refer to as a Ponzi scheme; these prey on new users by offering them the moon in exchange for their coins or fiat). I only suggest investing directly in top cryptos like Bitcoin, Ether, Litecoin, etc as a new user, and I always suggest using the top broker / wallet / exchange (so in the, Coinbase/GDAX). Also, while Bitcoin Cash and Bitcoin Gold are valid coins, don’t mistake them for being Bitcoin, they are hard forks (they are their own coins). Likewise, although Tether and Bitconnect are top coins, they aren’t “just cryptos” so don’t treat them as equal types of investments. A little research can pay off a lot, don’t impluse buy something you haven’t researched fully!

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Bill Wandera on

There are over 50k ewallet holders in Uganda. Bitcoin is routinely traded via platforms like BitPesa that converts crypto to fiat like Ugx and Kes. Conclusion: someone in the Third World is way ahead in this game already!

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paul sableski on

Im still confused,i need to watch it a couple of times before ill grasp it?Maybe?

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Thomas DeMichele on

To say the least. It takes a good deal of thinking and research to fully wrap your head around cryptocurrency. I’m going to work on a simpler guide and will post it above.

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Robert Motzel on

What if have Bitcoin and want to buy or sell to someone who uses a different crypto currency. is Bitcoin transferable ?

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Thomas DeMichele on

No. You cannot and should not send Bitcoin to any address other than a Bitcoin address (this includes Bitcoin Gold, Bitcoin Cash, i.e. any hard forks). You would have to use Changelly (or ShapeShift) or an exchange to convert it into the other crypto, or they would have to have a Bitcoin address and accept your Bitcoin.

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Wacco on

Bitqyck.me has a mining oppurtunity that….When mining, you get returns weather the coin value goes up or down….correct?…You join up free to get started

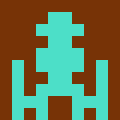
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Thomas DeMichele on

I don’t like anything that offers anything that isn’t honest pay for a hard days work. So I generally avoid any incentive-based structure without tons of research first. I don’t want to comment on a service I haven’t used. My first sniff test is to see if the domain is blocked by Google. The second is to do tons of research. They pass the first test, I haven’t done enough research to comment further on this one. 😉

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Mac on

You are a scam.

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S. Mack on

How does cryptocurrency differ from credit cards?

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Thomas DeMichele on

One is bank credit accounted for by the bank, the other is cryptocurrency accounted for on a decentralized, encrypted, public digital ledger.

Fundamentally not so different. Very different in terms of specifics.

Bank credit is ultimately backed by the state, cryptocurrency is backed by an algorithm.

Your credit card charges you interest, but you can spend money you don’t have. Your crypto generally goes up in value over time like a volatile stock, but you have to obtain it using your own capital (or trade it for goods and services).

If someone steals your credit card, you call the fraud department and the bank fixes it. If someone steals your crypto, you lose it. This is why I like Coinbase, they are essentially the closest thing you can get to a bank with crypto at the moment.

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Ray Burring on

still does not explain the critical things of how do you buy in and how do you convert currency like dollars out of it when required

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Thomas DeMichele on

We cover that elsewhere on the site, for example here: [//cryptocurrencyfacts.com/how-to-trade-cryptocurrency-for-beginners/](https://cryptocurrencyfacts.com/how-to-trade-cryptocurrency-for-beginners/)

Thanks for saying something though, I added that link toward the top of the page for people to check out.

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Ravi Raj Singh on

The digital signature accoded to the individual, how is it developed? Is it a system based address like MAC address?

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Thomas DeMichele on

It is sort of like a MAC address. When you generate a wallet you get a public address that coins can be sent to and from and a private key that allows you to access the wallet (which stores your public address and allows you to send/receive a given crypto). You share the public address and transactions that uses it are recorded on the public ledger, but you don’t share your private keys.

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Nancy on

I still don’t understand why a computer generated number is valued so highly.

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Thomas DeMichele on

Its a store of value with a system of encryption and accounting behind it. Its a digital payment system that allows people to transfer large or small amounts of money across the globe using a peer-to-peer payment system. It gives people in any country on the planet a way to obtain and maintain real world value (if they have an internet connection). Someone with no other options can mine or sign up for a faucet site (where you get very small amounts of coins for free). There is work behind it.

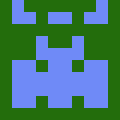
The list goes on. That is why it has high value….

… Well that and people bid it up on exchanges.

In other words, it has fundamental and intrinsic value, and then it also has the value people are willing to pay for it in the current market based on bidding wars on the exchanges (not just supply and demand, but tactful bidding).

The fundamental value is very exciting in the long term regardless of what happens in the short term, meanwhile the increasing value in the short term is exciting in a different way (but has some inherent risk).

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t on

Check out the white paper of this cryptocurrency. I think they may have stolen some of your work. bitqy.org

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Thomas DeMichele on

Yeah I do see that this is the case. I mean as long as they aren’t using it to rank their website I’m not overly upset. Feel like they could have at least offered us some tokens though 😉

Good catch, thanks.

I will vet them. As long as they are legit I don’t think its a big deal. If they are using it to pull one over on people, then I’ll be saying something.

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Robert Motzel on

Way over my head but watching this vid 20 times I will get saturation.  
What an amazing system

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Thomas DeMichele on

That is exactly how I learned about cryptocurrency. Watching videos over and over, reading the same documents over and over, trying to mine, using exchanges, etc. Saturation works. 😉

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Chris on

What do you think about industry specific currencies. I work in healthcare and the idea of a Blockchain based electronic medical record is intriguing to me.  
I know we are towing the line between Blockchain and crypto here. But, it does not look like many alt coins are going into the healthcare sector. Thoughts?  
Ps thanks for the great explanation and your willingness to interact with so many in the comments. Easily one of the most comprhendable explanations I’ve rwad

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Thomas DeMichele on

Thanks for the compliment.

I think industry specific tech based on crypto tech (like blockchain) is a clear winner. I think related tokens can be hit or miss. If there is a reason to have a token, that is one thing. If a token is just sort of created as an aside but doesn’t have any necessary function related to the system, then it is less attractive.

Generally I think there is a ton of potential though.

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Bearmac on

Great intro to crypto currency.

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Il Seba on

io francamente ho capito ben poco…

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Thomas DeMichele on

If it weren’t for Google translate that would make two of us.

To your point, understanding crypto isn’t something that happens over night. It is something you earn over time by putting in some hard work. It’s a great hobby, but it takes work to understand how cryptocurrency works 😀

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Donald J Leske on

I think it is just a matter of time to its total failure, sorry. I am a computer IT guy, write 4 computer codes and have been involved since 1992, wow. YEAH, well someone will pull the floor out from under us all in time with receivers of all varieties which are particularly sensitive to EMP, as the highly sensitive miniature high frequency transistors and diodes in such equipment are easily destroyed by exposure to high voltage electrical transients. See this article, which pretty much says it all; [//www.ausairpower.net/ASPC-E-Bomb-Mirror.html](https://www.ausairpower.net/ASPC-E-Bomb-Mirror.html) – I wish it wasn’t so.

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Thomas DeMichele on

Sure, if that worst of all possible worlds occurs then all digital finance is in a real pickle. But that takes down all the dollars of central banks, the systems that track commodities like gold, etc. Nothing is safe, we are all in deep trouble. So I don’t see the problem being unique to crypto.

We can live in fear of the worst cases, or we can not. I say not, but awareness is good. Interesting article either way.

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Barbara A on

Very well done but I miss the days of the handshake to secure a transaction. My only thought is money laundering and illegal activity, terrorists, cartels, etc, etc. Why give those criminals this solution to do further harm. Who else uses this and for what purpose? Just curious.

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Thomas DeMichele on

The software that handles transactions is better than any handshake. It is a trustless contract that allows any two people to create and execute a transaction with a virtual handshake ensured by the principles of cryptography. Nothing is stopping one from pairing it with a good old physical handshake though.

As for criminals. We can’t stop them from forming businesses (unless they have a record), we can’t stop them from using dollars, we can’t stop them from doing whatever they do (unless the powers that be can use the forces that be to catch them), etc.

Many, but not all, of us would love it if we could create a magical line of code that excluded the worst of criminals from a given digital system. However, this is probably not realistic in any system. It is sort of just a sad aside of any system that there is no perfect solution to. The idea that cryptocurrency should be equated with crime is largely a talking point, criminals can use the internet for crime, they can use a secure phone for crime, they get further in a car than a horse and buggy, they can hurt more people with modern weapons than sabers and muskets… still, the rest of us have to evolve, and therefore the worst of us will also have access to the tech. What can one say?

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Stephen on

So in 2140 I might be able to buy a GPU for its actual MSRP since mining won’t generate profit anymore?

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Thomas DeMichele on

Don’t get your hopes up 😀

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NICHOLAS KURYLA on

Too confusing and complicated to understand…I’ll stick to the tried and true: greenbacks! and they are accepted all over the world.

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Thomas DeMichele on

I’ve spent a lot of time trying to explain cryptocurrency in simple terms and so have other members of our team. It is a little difficult to offer a complete view and a simple view at once.

Here is two ultra simple ones:

Cryptocurrency is a bit like email. You send/receive email using addresses and use passwords to access your email. You don’t know how it works under the hood, but you don’t need to to use email.

Likewise, its like online banking. You send to accounts and use a password to access your account. The bank keeps an electronic digital ledger of your bank credit. You don’t know how it all works, but you don’t need to to use it.

Want to invest in crypto or use crypto? You don’t need to study how it works. Just sign up for coinbase. Want to use it to buy something? Hit the send button. Want to convert it to greenbacks, hit the sell button.

We don’t all understand how our trading platform works, but we could figure out how to self manage our 401k in a pinch.

Not everyone knows how PayPal works or Square works, but using the product only takes a little bit of a learning curve.

Cryptocurrency is a new technology, its a bit complex under the hood, but from a user perspective there isn’t much more than “download the app and hit the buy/sell/send buttons” to transfer funds in and out of your account. There was a time when mass adoption of things like the internet, text messages, email, and social media seemed like a pipe dream, but we all caught on over time.

You get the gist.

All that said, here is another take on the bitcoin basics and beyond: [//cryptocurrencyfacts.com/bitcoin-basics-and-beyond/](https://cryptocurrencyfacts.com/bitcoin-basics-and-beyond/)…. I wanted to make that page simple, but complete. As a trade-off I ended up I think getting neither accomplished. 😀

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Mogs on

Blah blah sound’s extremely risky to me-  
The government could shut down the internet at any time, so now how will your cryptocurrency be, huh?

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Mogs on

Oh and I forgot;

People could smugle huge amounts of money around the world.

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Thomas DeMichele on

People can smuggle huge amounts of money via cryptocurrency technically. They can also use fiat currency to do that. Nothing much to do to stop criminals from being criminals. I’m more concerned with how the 99.9% of the rest of us are helped by having a global peer-to-peer digital payment system. For example, how non-criminals can send money across the world without long wait times and high fees.

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Thomas DeMichele on

If the government shuts down the internet then cryptocurrency is the least of our problems. Online banking, paypal, email, search engines, etc. All going to be in trouble. I would put this concern very far down the list.

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Kelley on

The first introduction I’ve seen that I actually understand. Thanks 🙂

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Derek Mullings on

Could I have a few bullet points on what a ‘cryptocurrency unification platform’ does and what are the BENEFITS of such a platform to retailers and consumers? Thanks.

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Julius on

A simple explanation that actually does not impart information of any value. In the “coin” world, currency has value that can be traded for goods. For one dollar, you can exchange for what is valued at one dollars worth of goods.

With cryptocurrency, if a bitcoin is valued at $15,000 how does one use a portion of a coin to pay for goods? Can one only use this currency for high ticket items that cost at least the base amount of the bitcoin? Is a bitcoin like a virtual debit card? How does one track its value, and if part of the value is used, is it no longer a bitcoin as it is not worth what a “bitcoin” is valued at?

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Thomas DeMichele on

If I want to buy a loaf of bread from someone who accepts all mediums of exchange, and that loaf of bread costs $5. Then I can use $5 worth of value of any medium of exchange to buy the loaf. To do this we’d probably agree to use the market price of Bitcoin in USD, the market price of Gold in USD, etc.

If I want to use Bitcoin, I’ll use a fraction of a coin and pay a transaction fee.

Now, if the loaf dealer values his loaf is satoshis (fractions of a Bitcoin) then it works the other way around. He will only sell the loaf for .0001 BTC. Thus I can offer .0001 BTC worth of dollars or .0001 BTC worth of gold.

Thinking of BTC in dollar value is one way to do it, but I could just as easily compare loaves of bread and BTC, or BTC and weights of gold. We are just picking a standard and comparing other sources of value to it and valuing things based on current exchange rates.

Since we live in the world we live, generally we will use the US dollar as our standard (it is nice and stable and we can pay our taxes in it; it is a good choice). Thus, we will compares loaves of bread, Bitcoins, and Gold to that in terms of value in USD and we will say a bread is $5, a Bitcoin $8k, and a ounce of gold $1.3k.

A Bitcoin is always a Bitcoin, bread always bread, gold always gold, but its value in USD changes.

Bitcoin is a flexible medium of exchange, one could think of it like a virtual debit card (although its a bit more complex than that, PayPal or online banking are decent comparisons).

Otherwise your questions are probably best answered with a short discussion on the nature of money in terms of the philosophy of economics.

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Misa on

So can we say.. once there is a technology breakthrough which explodes computing power, say, quantum computing, it will totally change the scarcity of the coins, similar to human being exploring another planet full of gold and can ship them back to earth in tons…right? Is that a real risk?

As to the utility part, I can start to see the point as its transaction value will increase as it becomes more liquid, and more ATMs open. But I still can’t see how it beats fiat money, except for in cases where users want to remain anonymous – an anti-money laundering nightmare.

As the mainstream fiat money is pretty much digital now, it has to offer a stronger value proposition to convince me. And it can’t be anonymity, as there is a reason why financial regulation exists.

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Thomas DeMichele on

The one benefit cryptocurrencies have is they are software. So if we can upgrade other hardware / software to do quantum computing, logically we will be at a place where we can update cryptocurrency software to avoid being nullified by the quantum computers. I think there is risk in there, if someone develops a super computer before the world upgrades their computer security and software, but its the same sort of risk any software / hardware faces from a very general frame.

On the other point, I don’t think crypto will replace fiat currency, I think it is supplemental. Very roughly I mean it in the same way that PayPal, Square, Apple Pay, Credit Cards, and Gold haven’t replaced fiat. It isn’t just because most of those are ultimately fiat backed, it is because they don’t have all the same exact features despite their useful qualities.

Crypto is sort of a hybrid between being money and an asset, a store of value and a medium of exchange. This is different than fiat money which is meant to hold a stable value and be a medium of exchange… it is currently more like if we could spend stocks as money.

The real utility of crypto is probably in its use within online environments. Like if Twitch had a crypto, Facebook had a crypto, or Google had a crypto, etc, or if they used cryptos, it would allow for a more fluid exchange of value within those systems.

If I’m watching someone on Twitch and I want to tip them, exchanging a token rather than fiat money starts making a lot of sense. Further, if I want to send money across the globe, it might be faster, easier, and cheaper to send tokens rather than to get our banks to accommodate the transfer (especially if we are transfering to a country where their state issued currency is in disarray, we might conclude that there is more value in sending them the token.

Just two of many examples of where it doesn’t replace fiat money, but exists along side it. I doubt they are the best examples, but they are perhaps examples of fuctions we don’t need fiat to preform, but crypto can easily (do we need a bank handling countless micropayments for tips on a platform like Twitch?).

Meanwhile, while criminals might benefit from any technological advent, to me this is partly an aside. All good tax paying peoples of the world are going to claim their crypto, report correctly, and pay taxes, thus they won’t be any more anonymous then they would be if they handed someone a chunk of cash. We don’t know what the individual did with their cash, but we have a tally of cash in and cash out reported to the IRS each year (and actually with blockchain, we can see the transaction even if we don’t know who conducted it… so its even more transparent).

So I don’t think that anonymity is the selling point or that a replacement for states and money is the future, instead I think that its a complimentary system that solves some of the problems with current monies. When Apple comes out with Apple pay, when a bank a credit card, or PayPal with their digital payment system I don’t think “this is the end of money” I think “this is another compliment to the way value is transferred and stored. When a new stock comes out, I don’t think “this has no value” I think of what that stock represents and then try to buy low and sell high (at some point); cryptocurrency also has this feature.

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