What is Cryptocurrency?

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Cryptocurrency is best thought of as a [digital currency](#) that only exists on computers. It is transferred between peers (there is no middleman like a bank). Transactions are then recorded on a digital public ledger called the "blockchain".

Transaction data and the ledger are encrypted using cryptography. That is why it is called "crypto" "currency".

Cryptocurrency Main Features

Let's dig into [how cryptocurrency works](#).

Decentralized and Distributed

Cryptocurrencies are decentralized and distributed. No single entity can forge a transaction because the blockchain is stored on multiple independent computers and the algorithms make sure that the records are not tampered with.

When a cryptocurrency transaction is made, that transaction is then distributed to all users hosting a copy of the blockchain.

Types of Cryptocurrency

As of 2022, there are currently over 6,000 different types of cryptocurrencies, each with its own deliberate differences. Some of the most notable are:

Bitcoin

Created in January 2009 by an unknown individual who goes by the pseudonym of Satoshi Nakamoto. This was the first cryptocurrency to be released and the most famous. It was designed to offer lower transaction fees online and a decentralized authority, as opposed to government issued currencies.

Ether (a.k.a. Etherium)

Created in July 2013 by 19-year-old Vitalik Buterin, Ether boasts its own programming language, called Solidity. This is a network based cryptocurrency, meaning any system or program connected to this network

requires a substantial amount of computing power to properly operate and participate. This cryptocurrency is second in value to Bitcoin.

Monero

Created in April 2014 as a fork (a cryptocurrency split into two) of Bytecoin, Monero is valued for its enhanced security protections. This particular cryptocurrency seeks to add more privacy by shielding the identity of any individual in the mining process, using pseudo name addresses. This currency is favored by hackers and dark web merchants who tie their livelihood to anonymity.

Cryptocurrency Miners

Specific types of users, called miners, try to solve a cryptographic puzzle (using software). This lets them add a "block" of transactions to the ledger. These "blocks" of transactions are added sequentially by miners. Whoever solves the puzzle first claims the newly mined currency as a reward, as well as transaction fees paid by those who created that particular transaction.

Sometimes, miners pool computing power and share the new coins. The algorithm relies on consensus. If the majority of users trying to solve the puzzle all submit the same transaction data, then it confirms that the transactions are correct. People who are running software and hardware aimed at confirming transactions to the digital ledger are called **cryptominers**.

Solving cryptographic puzzles (via software) to add transactions to the ledger (the blockchain) in hopes of getting coins as a reward is called **cryptomining**.

Cryptomining is a hot topic currently. Even though this profession constitutes a relatively small population, its effect can be felt world-wide. As the cryptography puzzles become more and more complex, more computing power is needed to help solve them.

Some cryptominers have purchased high-level processors that can assist with the process. [Xbox consoles, PlayStation consoles](#) and the [latest releases of graphics cards](#) have been purchased en masse to mine a specific type of cryptocurrency called Etherium. If you have tried to purchase any of these devices between 2018-2021, then you may be aware of the deficit that I speak of. Due to recent backlash from the gaming community, [cryptomining limitations have been set](#) on the processors for these graphics cards by their manufacturers and [purpose-built cryptomining devices have been released](#) in an effort to divert cryptomining attention away from the gaming market.

Is Cryptocurrency a Game Changer?

This depends on who you ask. Some people believe in the freedom and innovation that cryptocurrency offers, while others fear that this type of unregulated currency could destabilize national currency and promote malicious behavior. It is a debate that has continued since its inception until

today. Here are a couple of notable quotes on this topic from either side:

Pro-Crypto Perspective

Some believe that cryptocurrency is part of the future. According to Olawale Daniel, founder of [TechAtLast International](#) – a firm that specializes in consultation for wealth development:

"Innovation is not always liked in its early stage until it becomes a public point of discussion and interest. Bitcoin was like the Internet of the early 20s, and today we all use it. Most aspects of our lives revolve around the internet, the same way blockchain technology and other decentralized apps (DApps) will become mainstream solutions to our world in the future."

Anti-Crypto Perspective

Others, don't believe that cryptocurrency is a feasible option. According to Gary Gensler, head of the Securities and Exchange Commission:

"As such, investors should consider the volatility of bitcoin and the bitcoin futures market, as well as the lack of regulation and potential for fraud or manipulation in the underlying bitcoin market."

There are also concerns of [the effect that cryptocurrency is having on the environment](#). It is odd to think that a digital entity could have consequences in the real world, but studies have shown that the massive amount of energy required for the mining process is resulting in the need for more fuel sources and a potential increase in carbon emissions. For example, most cryptominers reside in China, a country which derives most of its energy from coal, which is not considered to be a clean source of fuel.

Into the Future!

The debate on whether cryptocurrency is ultimately advantageous or not for economics does not appear to be ending any time soon. No matter which side your opinion resides, it is clear that this will be a normal part of life moving forward.

It is also important to consider both the risks and benefits that it might bring to your interests, such as your own computers and websites/webapps. One very real aspect of cryptocurrency is the threat of malware that some cryptominers utilize in their efforts to claim this digital wealth. For more information on how to deal with this malware, visit our other article, where we discuss cryptocurrency mining malware in detail.

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ABOUT STEPHEN JOHNSTON

Stephen Johnston is Sucuri's Agency Consultant who joined the company in 2017. Stephen's main responsibilities include brokering partnerships between Sucuri and valued agencies,as well as assisting in account management and further education in web security. His professional experience covers over 20 years in customer care and IT service, as well as 10 years in security systems. When Stephen isn't assisting agency partners with implementing new security measures for their business, you might find him spending time with his family, playing guitar, or beating the latest video game. Connect with him on our [Twitter](#).

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