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DART 449

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## Digital Currency Revolution

### Introduction

In this essay, I will be researching about a new and developing type of currency that exists only in the virtual realm. This type of currency is called cryptocurrency which involves the use of hidden codes called cryptography and currency which is a system of money. Even though it has “currency” in its name, cryptocurrency is actually more related to stocks. The reason why it’s related more to stocks than currency is because when you actually purchase cryptocurrency, you are actually buying a technological stock. This technological stock is a part of what we call a “blockchain” and also a part of a network. When purchasing cryptocurrency, there are actually two types of “currencies” you are investing in: Currency (Bitcoin) or Smart Contract (Ethereum). Bitcoin and Ethereum are just two examples and probably the most widely used in the crypto world.

### Blockchain: A New Technology

Understanding what a blockchain is, is rather complicated and requires some knowledge in economics and technology. In short, a blockchain is a digital ledger. A ledger, in case you don't know, is a "book" of financial accounts and information. In the real world, a ledger is usually kept private to the owner and not to the public. This case however, it is a digital ledger. What makes blockchain technology so successful is because information held on a blockchain exists as a shared – and continually reconciled – database.<sup>1</sup> Similar to how the internet came to be available to the public, the blockchain frame also revolves around the idea of a decentralized network. The blockchain isn't stored in just one location but shared within many networks. This way, it becomes hack-proof since the information is not stored in a centralized location. It is hosted by millions of computers simultaneously<sup>2</sup> therefore making the data accessible to anyone on the internet. Blockchain technology is highly recognized because it is transparent, difficult to corrupt, cannot be controlled by a single point, no single point of failure, decentralized data spread in networks, enhanced security standards and it is trustworthy.<sup>3</sup>

## Blockchain used as Currency vs. Smart Contract

There are over 1,000 types of cryptocurrencies according to CoinMarketCap. When investing in the crypto market, it's important to know what you are investing in. Not all the

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<sup>1</sup> "What is Blockchain Technology?" Blockgeeks, <https://blockgeeks.com/guides/what-is-blockchain-technology/>

<sup>2</sup> "What is Blockchain Technology?" Blockgeeks, <https://blockgeeks.com/guides/what-is-blockchain-technology/>

<sup>3</sup> Harshal Bhalerao, "We need Blockchain Technology to reach these 4 Sectors as well" beBee, <https://www.beebe.com/producer/@harshal-bhalerao/we-need-blockchain-technology-to-reach-these-4-sectors-as-well>

cryptocurrencies are digital forms of “money”. There are two types of investments that we should be aware of: currency and smart contracts. Bitcoin, the most powerful and popular type of cryptocurrency falls in the category of currency. For example, when “purchasing” (a.k.a. investing) Bitcoins, the coin(s) can be used as payment to authorized businesses. In order to make a payment with digital currency, you need a digital currency wallet that stores your coins. It’s the same as a bank account so you can receive, store, pay and send coins. Currency is simple, it is what commonly known as money in which this case is digital money. The latter, smart contract, is a much more complex and technical idea. To put it simple, smart contracts help you exchange money, property, shares, or anything of value in a transparent, conflict-free way while avoiding the services of a middleman.<sup>4</sup> It is a program that runs a series of instruction written in a programming language and stored within a blockchain. The instructions are executed if all the criteria are met. For example, Ethereum is a blockchain specifically built for smart contract use cases. Programmers would use the Ethereum platform to build their decentralized application. To put it into perspective, Ethereum is like the internet and the decentralized apps are like websites. Each decentralized app has a specific use. Currently, the potential of smart contracts are under development and still needs time to be adopted.

## The Impacts of Cryptocurrency

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<sup>4</sup> “Smart Contracts: The Blockchain Technology That Will Replace Lawyers” Blockgeeks, <https://blockgeeks.com/guides/smart-contracts/>

Most of us would think that cryptocurrency is just a side job of investments and earning money from time to time but for others, it's their main source of currency. The world of crypto is still very new and those who are on board with it are the pioneers of this new technology. However, this new technology has effects that differ around the world for the better or for the worse. Vitalik Buterin, inventor of Ethereum states the follow:

*“Blockchain solves the problem of manipulation. When I speak about it in the West, people say they trust Google, Facebook, or their banks. But the rest of the world doesn't trust organizations and corporations that much — I mean Africa, India, the Eastern Europe, or Russia. It's not about the places where people are really rich. Blockchain's opportunities are the highest in the countries that haven't reached that level yet.”*

The leading cryptocurrency, Bitcoin, gives the opportunity for those who don't have access to banks to be able to have services to banking accounts. Bitcoins are not issued, endorsed, or regulated by any central bank.<sup>5</sup> Also, those who don't have access to credit will be able to move into middle-class by being able to purchase necessities such as homes and vehicles. It also gives the opportunity to fight against oppressive regimes that results in poverty. Bitcoin is recognized in many nations but doesn't necessarily mean that it's accepted. Countries that accept Bitcoin include the U.S., Canada, Australia and certain countries in

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<sup>5</sup> Prableen Bajpai, “Countries Where Bitcoin Is Legal & Illegal, Investopedia, <http://www.investopedia.com/articles/forex/041515/countries-where-bitcoin-legal-illegal.asp>

Europe. The ones that don't are Iceland, Vietnam, Bolivia, Kyrgyzstan, Ecuador, Russia and China.<sup>6</sup>

Unfortunately, there are those who use cryptocurrency for negative reasons. The negative reasons include evasion of capital control, use of currency in the black market for drugs, terrorism, pedophilia and money laundering. Cryptocurrency is especially popular for cyber criminals and their services.

## How to Get Started

In order to buy or invest in cryptocurrency, it's important to do your research before making any purchases. Once you have an optimal amount of knowledge, you need to go on a legitimate cryptocurrency exchange, verify your identity and put money into your account. With the money in your account, you can then purchase crypto according to their value. For example, in order to buy 1 Bitcoin, it will cost you 7536.23 CAN dollars (at the time of purchase). Just like the stock market, the value will always fluctuate. Once you have purchased your coins, you can transfer your coins to a wallet which will store your coins. You can use this wallet to keep track of your coins or to make purchases and exchanges.

## Conclusion

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<sup>6</sup> Prableen Bajpai, "Countries Where Bitcoin Is Legal & Illegal, Investopedia, <http://www.investopedia.com/articles/forex/041515/countries-where-bitcoin-legal-illegal.asp>

Cryptocurrency and blockchain technology is still relatively new and experimental. It is comparable to how the internet was in its early stages. It is still underdevelopment but people see the potentials of these as the future of technology and a decentralized system.

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