

The Muttart Foundation

Cryptocurrency Primer for Charities

2024



Table of Contents





Section 1

Introduction to Cryptocurrencies

As cryptocurrencies move into the mainstream, they offer opportunities for charities to attract new donors, efficiently transfer money, and enhance transparency. However, they come with unique challenges that require careful understanding and management.

This primer has been written to explain the basics of cryptocurrency to people within the charitable sector, in plain language.

What is a cryptocurrency?



A cryptocurrency is a form of digital currency that is secured by cryptography, the practice of keeping information and communications private using codes.

Some of the defining features of cryptocurrencies include:

- There is no physical representation of the currency it exists only online, as a "digital asset" represented by a complex piece of computer code.
- The creation of new units of the cryptocurrency, as well as the transfer of the cryptocurrency between parties, is encrypted by computer code which provides high levels of security.
- The currency is not (usually) issued or controlled by a government or central authority this "decentralized" structure is enabled by a large network of computers.
- Cryptocurrencies eliminate the need for intermediaries such as banks to be involved in transactions, allowing for timely exchange directly between two parties.
- Cryptocurrency transactions are recorded as code in a type of ledger called a blockchain, which allows for anyone to search and view the details of transactions, including the date, time, amount, sender information, and receiver information.

What is a blockchain?

A foundation of cryptocurrencies is that all transactions are stored in a public, online ledger, commonly referred to as a "blockchain." This feature of cryptocurrencies is critical to the security as well as the transparency of cryptocurrency transactions. The most well-known cryptocurrency blockchain is Bitcoin.

In a blockchain, lists of information related to the cryptocurrency transactions are stored in "blocks" of data. Once a block is full, in that no more data can be added based on the limit of the size of the block (for Bitcoin this is one megabyte), code is used to append it to all the previous blocks of data for that cryptocurrency, forming a chain. Each new block of data adds to the chain, and once it's added, it can't be modified or deleted.





The blockchain of a cryptocurrency is stored across a network of computers that work together. The owners of these computers have joined that blockchain community and each of their computers has an exact copy of the blockchain code. This decentralized structure means that there is no single point of failure (if one computer goes down, there are hundreds, if not thousands that still are running) and also that it's very hard to tamper with the data stored in the blocks since it must agree with the data stored on all the other computers hosting the blockchain.

History

The concept of digital cash has been around since 1983, but it wasn't until 2008 that it became a reality with the publishing of the paper "Bitcoin: A Peerto-Peer Electronic Cash System" under the pseudonym Satoshi Nakamoto. The identity of Satoshi Nakamoto remains a mystery more than 15 years later, with some people speculating that Nakamoto was actually a group of individuals, while others have made questionable claims that they are the person behind the name.

In 2009, the first block of the Bitcoin blockchain was created containing 50 units of the Bitcoin cryptocurrency; at the time it was worth pennies but it would go on to be worth well over \$2 million USD in 2024. A community formed around the Bitcoin blockchain and began mining and trading Bitcoin, creating both supply and demand markets for the cryptocurrency. The first Bitcoin transaction for physical goods happened in 2010 when 10,000 bitcoins were paid for 2 pizzas. In 2013, Bitcoin's value rose to \$1,000 USD per unit, which attracted attention from some media and investors. At the same time, other cryptocurrencies were starting to emerge, as were cryptocurrency exchanges where people could trade cryptocurrency for fiat (government-issued) currency.

In 2017, Bitcoin's price rose to almost \$20,000 USD per coin, drawing new attention and investors to the crypto space; a significant price correction to follow only weeks later led many people new to the crypto market to lose money. Despite this, Bitcoin and cryptocurrencies have moved into the public consciousness and have remained there ever since.

In the subsequent years, better global regulatory clarity and new innovations in digital assets have led institutional investors and financial services organizations to invest in the crypto market.



Bitcoin Price Since Inception

(Historical price of Bitcoin as of September 3, 2024 via CoinMarketCap: https://coinmarketcap.com/currencies/bitcoin/)

Cryptocurrencies Today

At writing, the market capitalization (total value) for the global cryptocurrency is over \$2 trillion USD, with about half of the value coming from Bitcoin, which trades under the symbol BTC. The next most valuable cryptocurrency is Ether (ETH), which has a market cap of close to \$300B USD and is used in transactions on the Canadian-founded Ethereum blockchain platform.

Rounding out the top five are Tether (USDT), the value of which is linked to the US dollar; BNB (BNB), which is a cryptocurrency issued by the world's largest crypto exchange, Binance; and Solana (SOL), the native cryptocurrency of the Solana blockchain platform that has relatively fast transaction times and inexpensive fees.

Name	Price / Unit	Market Cap
Bitcoin	\$58,113.48	\$1,148B
Ethereum	\$2,463.46	\$296B
Tether	\$1.00	\$118B

(Chart showing top three currency prices in USD on September 3, 2024 via CoinMarketCap)

Cryptocurrencies in Canada

According to an Ontario Securities Commission (OSC) survey published in November 2023, 10% of Canadians own crypto assets, which is a drop from 13% in 2022. Crypto owners are more likely to be men, aged 25-44, with high financial literacy. Bitcoin and Ether are the most widely held and traded cryptocurrencies in Canada.

On the corporate side, a KPMG Canada survey showed that half of financial services organizations offered some form of crypto asset services in 2023, and nearly four in ten institutional investors had exposure to crypto.

[1] https://www.marketplace.org/2023/12/22/nft-market-crashes-value-worthless/

[2] https://www.osc.ca/sites/default/files/2023-12/inv-research_20231129_crypto-asset-survey-2023.pdf

[3] https://kpmg.com/ca/en/home/media/press-releases/2024/04/institutional-adoption-of-cryptoassets-jumped-in-2023.html



Section 2

How Cryptocurrencies Work

Mining

"Mining" is the process through which new cryptocurrency units are created. Essentially, multiple computers compete to solve a complex math problem as fast as possible and whoever wins the round gets a cryptocurrency unit, like Bitcoin. Then, a new math problem is put out for the computers to solve. The miners who solve the puzzles get to keep the cryptocurrency they've earned or can sell them if they want. The computer owners write the algorithm, but the work to solve the problem is automated and is constantly running. The computers used for mining are specialized and take a large amount of processing power. Miners (the people or companies that own the computers) are always looking for the cheapest source of electricity. As such, many of the newer cryptocurrency blockchains have been designed to minimize the power required or use more efficient processes to verify transactions.

Exchanges

A cryptocurrency exchange is an online platform where people can buy, sell, or trade cryptocurrencies. Here users can exchange one cryptocurrency for another, or buy or sell their cryptocurrency for fiat currency. Exchanges charge a fee for these services, based on trading volume and transaction size. Exchanges also provide real-time market prices of cryptocurrency.

To use a cryptocurrency exchange, a person needs to create an account and go through a process called Know Your Customer (KYC) where they provide government-issued ID to verify their identity. Identity verification is important to combat money laundering and is a regulatory requirement for most countries. All cryptocurrency exchanges that offer services within Canada must be registered with a Canadian securities regulator and comply with KYC and other guidelines to help protect investors.

Some of the top crypto exchanges in Canada are:

- Bitbuy (Canadian based)
- CoinSmart (Canadian based)
- Coinbase (one of the largest exchanges in the world)
- Kraken (one of the oldest exchanges, for more advanced users)
- WealthSimple (Canadian-based, integrated into their financial services platform)

Digital Wallets

Owners of cryptocurrency must store their holdings in a "digital wallet" or e-wallet. Many cryptocurrency exchanges offer their users access to proprietary digital wallets as part of their account. Another option is a standalone wallet like MetaMask or Exodos. Wallets are also used to facilitate the sending and receiving of cryptocurrencies between two parties.

When cryptocurrency holdings are stored on the internet, such as with an online exchange, this is called a "hot wallet." These wallets can be accessed via a mobile or desktop app, or a browser. Hot wallets offer easy access to one's cryptocurrency holdings but are also vulnerable to hacking and cyber-attacks.

HOT WALLET

- Easy access and quick transactions, but vulnerable to online attacks.
- Convenient for frequent trading, but requires an internet connection.
- Good for daily use, but less secure for large sums.



- Highly secure and ideal for longterm storage, but less convenient for daily use.
- Protected from online threats, but slower transactions.
- Great for large holdings, but may require more technical setup.

Most seasoned cryptocurrency holders keep the majority of their digital assets in a "cold wallet" which means the crypto is stored in physical storage devices, like a memory key or an external hard drive that is kept in the crypto owner's possession. Trezor and Nano X are two examples of such hardware wallets. Because these wallets are offline unless they are in use for crypto transactions, they are less convenient but more secure. However, if a cold wallet is lost, there is no way to recover the currency.

Public and Private Keys

An important feature of digital wallets is the concept of private and public keys. The private key is only known by the account holder and is used to authorize spending from the wallet. It is a unique code typically represented as a long string of alphanumeric characters. Keeping the private key secure is critical to ensure no one else can access the digital wallet — similar to the password to your online bank account.

The public key is used when the owner is to receive cryptocurrency from another digital wallet — it is the "address" that someone else uses to securely send funds to the recipient. Think of it as your bank account number that is shared via a void cheque so that someone else can deposit funds into your bank account (such as payroll).

Cryptocurrency Transaction

Once a user has their digital wallet set up, they may deposit funds into it by purchasing cryptocurrency on a cryptocurrency exchange. They can use their credit card or bank account to make that purchase.



In order to send funds, a user requires the public key for the recipient. The sender creates a transaction via a form, indicating the type of cryptocurrency they are sending, the amount of the transaction, and the public key for the recipient. A small fee will also be added by the developer of the digital wallet to the amount to pay for the transaction.

Once the user authorizes the transaction by using their private key, it is broadcast to the cryptocurrency network (eg. Bitcoin), where it is included in the next block of data for the Bitcoin blockchain. Mining computers then work to check and confirm the payment. Once everything is verified, the recipient's digital wallet detects the transaction on the Bitcoin blockchain and updates its cryptocurrency balance with the transferred amount. On average, the process takes about 10 minutes.



Non-Fungible Token

Non-fungible tokens (NFT) are another form of digital asset. The word "fungible" means that something can be easily exchanged with another item of the same kind and value. For example, a \$5 bill can easily be exchanged for another \$5 bill because it is exactly the same. Or 1 Bitcoin can easily be exchanged for another Bitcoin.

"Non-fungible" items are unique and therefore there is no way to exchange a non-fungible item for the same item.

NFTs are digital assets (tokens) that represent ownership or proof of authenticity of a unique item or piece of digital content, such as art, music, videos, virtual real estate, or virtual goods in video games. NFTs became quite popular with the media in 2021 when the NFT for digital artist Beeple's work "Everyday: The First 5000 Days" sold for \$69 million USD at a Christie's auction.

Like cryptocurrencies, NFTs are stored on blockchain platforms as computer code and can be stored in digital wallets. People buy and sell these digital assets just like they would physical items and the NFT proves ownership, as well as that the item is genuine and unique. But like any asset that is traded in a market, the price is set by supply and demand, and after the initial frenzy around NFTs, the bottom has dropped out of the market [4].

Description	High Value	Low Value
NFT based on Jack Dorsey's first tweet	\$2.9M	\$3.77
Bored Apes Yacht Club NFT bought by Justin Bieber	\$1.3M	\$59,000
XCopy's art: Right-Click and Save as Guy, bought by Snoop Dogg	\$7,088,229	\$197

[4] https://www.marketplace.org/2023/12/22/nft-market-crashes-value-worthless/



Tracking Blockchain Transactions

One of the features of blockchain is that the transactions are recorded in such a way that they can be traced with the use of a blockchain explorer such as blockchain.com. This provides transparency into all transactions. However the data is limited to the public keys of the sender and the recipient, the amount of crypto transferred, and the date and time of the transaction. No personally identifiable information is available.

Transactions can be searched via the transaction ID (commonly known as the Hash ID), the public wallet addresses, or the unique number related to the block that contains that transaction data.



Section 3

Benefits and Risks of Cryptocurrencies

Benefits of Cryptocurrencies

a

Cryptocurrencies are increasingly popular across the world, reflecting their many benefits including:

Low transaction costs and speedy transfers:

When compared to the traditional global banking system, the fees for blockchain transactions are quite low. In addition, the speed of transfer is very fast, especially with international transactions, which do not require multiple intermediaries to facilitate the exchange.

Decentralization:

There is no central authority that controls the blockchain. This means that, unlike fiat currencies which can quickly devalue if there is a hit to the economy of a nation or due to national monetary policy, cryptocurrencies are not subject to the manipulation of a governing force.

Accessibility:

Anyone with an internet connection can participate in the crypto economy, greatly increasing access to financial services across the globe, even for the most remote areas with inadequate or non-existent traditional banking systems.

> Transparency and traceability:

The public nature of blockchains means that all transactions are available to be examined and traced by the public, promoting trust across the network.

Security and trust:

The use of cryptography, combined with the networked design of the cryptocurrency blockchain (ie. distribution across many computers and inability to rewrite past blocks), means that cryptocurrency blockchains are secure and immutable. Transactions can be trusted, even without a central authority such as a government or business.

Risks of Cryptocurrencies

6

While cryptocurrencies can carry many benefits in the charitable sector, charities must also navigate substantial risks such as:

Volatility:

The value of cryptocurrencies is determined by market supply and demand. Historically there have been large fluctuations in value due to the speculative nature of some cryptocurrencies. Cryptocurrencies and other digital assets are not a get quick rich scheme, nor are they a guaranteed investment. They should be evaluated in the same manner as any other high risk investment.

Security:

Though the Bitcoin blockchain has never been hacked, there are other points of weakness in the cryptocurrency ecosystem that can be exploited. Cryptocurrency exchanges have been susceptible to hacks, as have digital wallets. This is why cold wallet storage is recommended as the best option for those with significant holdings, as is using a reputable exchange for transactions.

Fraud:

Unfortunately, there have been many cases of fraud related to crypto, including phishing scams, Ponzi schemes, and fake cryptocurrency offerings. In an infamous case in Canada, the owner of an exchange called Quadriga misused millions of dollars of funds from investors [5]. When he passed away suddenly in India, the exchange collapsed and only a small portion of the funds were retrieved.

Risks of Cryptocurrencies

6

While cryptocurrencies can carry many benefits in the charitable sector, charities must also navigate substantial risks such as:

Lack of consumer protection:

Unlike traditional bank holdings in Canada, which are insured by the Canada Deposit Insurance Corporation (CDIC) [6], there is no coverage on crypto holdings should an exchange cease operations or be subject to fraud. In addition, if a transaction is sent to the wrong account, or the incorrect amount is sent, there is no recourse to recover funds, as there is no central authority. Once a transaction is complete on the blockchain, it is impossible to reverse. Similarly, if the private key to your digital wallet is lost, there is no governing authority that can help you retrieve them, meaning no one, including you, can get access to your funds.

Legal and tax implications:

Cryptocurrencies are still relatively new, and legal and tax complexities are still being defined by government agencies. Different jurisdictions may have different guidelines and those may change over time. It is important for participants in cryptocurrency markets to be up-to-date on the most recent guidance in order to remain compliant with regulations.

Liquidity:

Not all cryptocurrencies are available for trading at all times. Like any other market, demand can only be fulfilled if there is a supply. Major cryptocurrencies like Bitcoin and Ether have a large supply and transactions are generally quite fast. But less available cryptocurrencies, commonly referred to as altcoins, may not have a robust market for trading.

[6] https://www.cdic.ca/



Section 4

Considerations for the Canadian Charitable Sector

Opportunities

6

The emergence of cryptocurrencies has many potential opportunities for the charitable sector in Canada.

An opportunity to engage with younger donors:

Holders of crypto tend to be younger, with 20.5% of Canadians aged 18-34, and 11.3% of those 34-55 reporting that they own Bitcoin [7]. Charities that accept cryptocurrencies could set themselves apart by appealing to these donors with an innovative donation option.

Increased efficiency and lower cost of transfers:

For charities that support global initiatives, cryptocurrency transactions can be a quick way to distribute funds to partners on the ground in other parts of the world without the need for intermediaries. Lower transaction fees can allow more of the donations to go to support the cause.

Increased transparency and trust:

Due to the public nature of blockchain transactions, the distribution of contributions towards causes can be traced, providing transparency to donors and building trust.

An example of a nonprofit that has used cryptocurrency to enhance transparency and trust is the United Nations World Food Programme (WFP), which implemented blockchain technology in a project called Building Blocks that delivers food assistance to Syrian refugees in Jordan. By recording every transaction on a blockchain, the WFP ensured that funds were used as intended, improving transparency and trust in the aid distribution process [8].

^{[7] &}lt;u>https://www.osc.ca/quadrigacxreport/</u>[8] <u>https://www.cdic.ca/</u>

Challenges

In addition to the risks mentioned above, there are some specific challenges that should be considered by Canadian charities that are considering accepting cryptocurrency donations, including:

Environmental impact:

Mining cryptocurrencies such as Bitcoin takes a significant amount of computing power and the environmental impact on our climate, water and land is a big concern [9]. It is estimated that Bitcoin mining uses more energy than entire countries such as Ukraine and Pakistan [10]. Some cryptocurrencies, such as Solana and Ether, use different mechanisms for their blockchains that still provide security, without the massive energy costs. For any charity considering accepting or using cryptocurrency, donor backlash related to environmental concerns could be a factor.

Example 7 Reputational risk:

Nefarious actors have used the pseudonymity afforded by cryptocurrencies to fund and execute illegal activities. For example, recent high profile ransomware attacks on hospitals, municipalities and other large organizations have included demands for payment in Bitcoin. While the vast majority of crypto transactions are legal and above board, the media coverage of these types of attacks has led to some general public mistrust around cryptocurrencies and those who promote their usage. Charities considering accepting cryptocurrency donations could provide educational programs for their stakeholders to alleviate any concerns.

[9] https://unu.edu/press-release/un-study-reveals-hidden-environmental-impacts-bitcoin-carbon-not-only-harmful-product [10] https://www.investopedia.com/tech/whats-environmental-impact-cryptocurrency/

Challenges

6

In addition to the risks mentioned above, there are some specific challenges that should be considered by Canadian charities that are considering accepting cryptocurrency donations, including:

Capital gains implications:

Cryptocurrencies are treated as an asset by the CRA and any disposition that results in capital gains or losses must be reported in tax filings [11]. This has implications for a charity that is considering holding cryptocurrencies for any period of time as an investment. While charities aren't normally subject to income tax, gains on property [12] that isn't used for the organization's purpose may be. Because CRA hasn't released clear guidance in this area related to cryptocurrency, charities need to be aware of the possible financial implications.

In addition, donations of cryptocurrencies are not treated the same as traditional marketable securities, which qualify for some capital gains exemptions. Because there is no tax benefit to donating cryptocurrencies, and potentially some risks [13], the safest route for any charity at this point in time is to ask donors to cash in their cryptocurrency and make a donation in traditional fiat currency.

[11] https://www.canada.ca/en/revenue-agency/news/newsroom/tax-tips/tax-tips-2024/reporting-your-capital-gains-as-crypto-asset-user.html [12] https://www.canadiancharitylaw.ca/blog/cra_letter_on_capital_gain_on_sale_of_property_by_npo/

[13] https://www.canadiancharitylaw.ca/blog/accepting-cryptocurrency-for-donations-or-payments-can-be-quite-risky-for-canadian-charities-unless-you-know-what-you-are-doing/

Conclusion

Cryptocurrencies are an innovative technology, with the potential to benefit the charitable sector by facilitating faster and cheaper cross-border donations, enhancing transparency and trust, and attracting a new generation of tech-savvy donors. These advantages can significantly increase the efficiency and reach of charitable organizations.

However, charities must also navigate substantial risks, including regulatory and legal implications, reputational risks due to the environmental impact and illegal activities, the potential for security and fraud incidents, and the volatility inherent in digital currencies.

Mitigating these challenges requires a strategic approach, including robust risk management practices and compliance with evolving regulatory and legal requirements. Charities that can successfully navigate these issues will set themselves up to harness the power of cryptocurrencies to drive greater impact for the communities that they serve.





Section 5



A list of technical terms or abbreviations that may be unfamiliar to some readers.

Glossary

Altcoin

Altcoin stands for "alternative coin" and refers to any cryptocurrency created after Bitcoin. Many altcoins were created to improve upon Bitcoin or to serve different purposes. For example, some altcoins offer faster transaction speeds or lower fees. Some, like Ethereum and Litecoin, have large communities and significant market value, while others are smaller or more experimental.

Bitcoin

Bitcoin is a type of digital money or cryptocurrency. Unlike regular money, Bitcoin isn't controlled by a bank or government. Instead, it's powered by a network of computers around the world that work together to keep track of every Bitcoin transaction. Bitcoin can be used to make purchases, send money to others, or held onto as an investment. Each transaction is recorded on a blockchain.

Blockchain

Cryptocurrencies run on a distributed public ledger called blockchain. Blockchains are a record of all transactions updated and held by currency holders.

For example, imagine a research lab where scientists record data from experiments. Each time an experiment is completed, the results are logged in a digital notebook copied across many computers in the lab that everyone can see. The notebook automatically creates a new entry (or "block") every time data is added, and it links this new entry to the previous one, forming a "chain" of experiment results.

This ensures that the data remains trustworthy and transparent. If someone tries to tamper with the data from an experiment, the altered data won't match the other copies of the notebook. The system will reject the change, ensuring that only accurate and verified results are recorded.

Cryptocurrency

Cryptocurrency is defined most simply as digital money. The CRA defines cryptocurrency as crypto-assets that are designed to function as a medium of exchange. They can be used to buy products or services, traded for other currencies, or acquired for speculative purposes. Unlike traditional currencies, cryptocurrencies are not controlled by centralized entities such as central banks. The most well-known example of a cryptocurrency is Bitcoin.

Cold Storage

If you buy any amount of cryptocurrency and want to store it yourself, you have to choose between holding your assets in a "hot" wallet or "cold" wallet, or a combination of the two. Cold storage and hot storage are essentially the two different methods of keeping your digital assets safe. Cold storage refers to keeping cryptocurrency assets offline and disconnected from the internet. Cold wallets can include paper wallets (where private keys are written down or printed out) and hardware wallets, but also any device or storage method that keeps private keys offline, like a USB drive stored in a safe. Stealing from a cold wallet usually would require physical possession of or access to the cold wallet, making them quite safe from hacking or phishing.

Hot Storage

Hot storage refers to keeping assets online and connected to the internet. Web-based wallets, mobile wallets, and desktop wallets are all typically hot storage. Because they are always online, hot wallets make it easy to access your funds and make transactions. However, all crypto hot wallets are vulnerable to online attacks, which is why users don't typically hold large amounts of cryptocurrency in them.

Digital Wallet

A digital wallet is an application, device or program that functions as a wallet for your cryptocurrency. Digital wallets keep your private keys (which give you access to your assets) secure, and allow you to send and receive cryptocurrencies or make payments.

Distributed Ledger

A distributed ledger is a type of ledger that is spread across multiple computers or nodes in a network. Instead of being maintained by a single entity (like a bank in traditional finance), a distributed ledger is managed by multiple participants who all have a copy of the entire ledger. Every time a transaction is made, it is recorded in every copy of the ledger simultaneously. The most well-known example of a distributed ledger is a blockchain. The distributed nature of the ledger ensures that it is highly secure and resistant to tampering because any attempt to alter the ledger would need to affect all copies across the network.

Ether / Ethereum

Ether is the name of the blockchain Ethereum's cryptocurrency. Ethereum is the world's second most popular cryptocurrency. Like Bitcoin, it's built on blockchain technology and is decentralized, immutable, and open. Ether, like other digital currencies, can be used to pay for goods and services. It is also used to support the development of applications on the Ethereum network.

Exchanges

Cryptocurrency exchanges are online platforms where you can buy, sell, and trade digital currencies. There are two types of exchanges, called Centralized Exchanges and Decentralized Exchanges. The former are like big online shops run by a company, which handles all transactions and keeps your cryptocurrencies safe in their digital wallets. The latter are like community-run marketplaces where transactions happen directly between users.

Fiat Currency

Fiat currency is regular money used in everyday transactions, like dollars or euros. It's called "fiat" because it's not backed by a physical asset like gold or silver. Instead, fiat currency derives its value from the trust and confidence people place in it and the authority of the government that issues it.

Gas

Gas is used to define the cost of transactions on a blockchain, especially Ethereum. It's essentially an added charge or service fee the user pays for operating in a network. Just like you need gas to drive a car, you need gas to pay for the cost of running transactions on the blockchain. The exact price of the gas is determined by supply, demand, and network capacity at the time of the transaction. The concept of gas was introduced to compensate miners for their work on maintaining and securing the blockchain, and it also helps ensure there is a real cost to trying to disrupt the network by spamming it with transactions.

NFT

NFT is the acronym for Non-Fungible Tokens. "Non-fungible" means that the digital asset is unique and can't be replaced with something else. For example, a bitcoin is fungible because you can trade one for another and you'll have exactly the same thing. Many people may have heard of NFTs in the form of digital art, but NFTs can be anything from drawings, music, or even Tweets. NFTs allow artists to sell and monetize their work directly, while collectors can securely store, display, and trade them.

Private Key

A private key is similar to a password, used to authorize transactions and prove ownership of a blockchain asset. It's a randomly generated number usually presented in 64-digit hexadecimal form and is only available to its user to make transactions from their account. Both public and private keys allow you to send and receive cryptocurrency without requiring a third party to verify the transactions.

Public Key

A public key allows you to receive cryptocurrency transactions through a code paired with the private key. While anyone can send transactions to the public key, you need the private key to "unlock" them and prove that you are the owner of the cryptocurrency received in the transaction. You can freely share your public key without worry, but private keys should be kept secret.

Token

In short, a token is a digital asset that can have different uses and is built on existing blockchain platforms. In the crypto industry, tokens often mean any crypto-asset besides Bitcoin. While there's no technical difference between cryptocurrency and tokens, there are slight variances. Cryptocurrencies like Bitcoin are usually assets that mostly serve as money-like instruments. Tokens can be used like money, but they usually have additional functions such as granting access to specific goods or services, investing, or entertainment. Some of the most common tokens are Utility Tokens, Security Tokens, Governance Tokens, and Non-Fungible Tokens (NFTs).

Resources

Crypto Asset Survey 2023 - OSC <u>https://www.osc.ca/sites/default/files/2023-12/inv-research_20231129_crypto-asset-survey-2023.pdf</u>

Regulation of Crypto Trading Platforms in Canada: <u>https://www.securities-</u> <u>administrators.ca/crypto-trading-platforms-regulation-and-enforcement-actions/</u>

Crypto Asset Ownership and Use in Canada: An Update for 2022 <u>https://www.bankofcanada.ca/wp-content/uploads/2023/07/sdp2023-14.pdf</u>

CRA: Information for crypto-asset users and tax professionals: <u>https://www.canada.ca/en/revenue-agency/programs/about-canada-revenue-agency-</u> <u>cra/compliance/digital-currency/cryptocurrency-guide.html</u>



The Muttart Foundation

The Muttart Foundation

The Muttart Foundation is a private, charitable foundation based in Alberta. The foundation focuses on supporting early childhood education and care, enhancing the capacity of charities, and conducting research to inform public policy and practice within the sector. Through grants, training, and resources, the Muttart Foundation helps charities build community, address key social issues and concerns, and improve their effectiveness and sustainability.

CanadaHelps

CanadaHelps

CanadaHelps is a public foundation advancing philanthropy through technology. For Canadians, it powers CanadaHelps.org, a safe and trusted destination for discovering and supporting any charity in Canada. CanadaHelps also develops affordable fundraising technology used by more than 30,000 charities, and free training and education so that, regardless of size, all charities have the capacity to increase their impact and succeed in the digital age. Since 2000, more than 4.6 million people have given more than \$3 billion through CanadaHelps.

This primer is provided for general information purposes only and does not constitute financial or other professional advice; rather, it is an introduction to cryptocurrencies in the context of the charitable sector. The information in the primer is provided on an "as is" basis and should not be relied upon as accurate, timely or fit for any particular purpose.