A Better Taxonomy for Cryptocurrencies

A simple classification to help make sense of the gazillion coins

Over the past months of looking into different cryptocurrencies, I found it difficult to remember what each one of them does. Furthermore, there can be several coins/tokens that aim to tackle the same problems or the same industry, and these all add to the confusion.

Typical classifications of cryptocurrencies I found online gave an overview of the top coins, or grouped them as coins, tokens and securities, which were inadequate. Hence, I came up with a **system of categorisation** that supports my interest in different alternative coins (altcoins), which helps me to **classify my portfolio** and **keep track of my learning and understanding** of what each cryptocurrency is about.

Token Classification Table

The term "currency" in cryptocurrency denotes a system of money, but cryptocurrencies today have broader uses beyond their payment utility. Hence, "coins" or rather, "tokens" might be a more encompassing representation for them being a medium of exchange.

The cryptocurrency classification tool is a table that comprises 5 categories—Mode of Payment, Store of Value, Protocol Improvement, Coin-as-a-Service, Utility Token— which are the functions they serve. Each category is unique but they are not mutually exclusive i.e. a token can serve multiple functions.

A token can be designed to serve a purpose, or its function could have arisen from the way people use it. For example, Ethereum (ETH) was originally designed to be a system for smart contracts, but gradually became recognised as a store of value when it was used for Initial Coin Offerings (ICOs). Hence, categorisation of tokens should be fluid and flexible while the categories should be constantly updated.

Token Classification Table (2018).

1. Mode of Payment/Currency

The original purpose of cryptocurrencies, more specifically Bitcoin (BTC), was to come up with a **universal currency that was not controlled by any institution** (decentralised from government, banks, companies etc). In its current state of development, it is not functioning better as a day-to-day currency due to technical limitations in transaction speeds and volume.

Furthermore, transaction fees, which are typically charged as a fraction of the token, have become so expensive as the value of cryptocurrencies surge. Hence, many altcoins have surfaced, with the aim of bettering Bitcoin as a mode of payment—think cheaper fees, faster transaction speeds, greater transaction volumes, better security, increased anonymity.

Examples: Litecoin (LTC), Bitcoin Cash (BCH), Monero (XMR), Nano (XRB), Dash (DASH)

2. Store of Value

While the limitations of blockchain are still being resolved, one irrefutable value of Bitcoin is that it is a reliable store of value. Even with the expensive fees and slow transfer speeds, BTC is widely accepted and recognised to have some value (however volatile it may be), much like an asset.

You can argue that Bitcoin's scarcity (capped at 21M coins) artificially inflates its value but that is besides the point. As long as the people who

bought at $100 and at $10,000 agree that there is some value to BTC, equilibrium will eventually be achieved.

There are also other cryptocurrencies where each token issued by their respective organisation is backed by a physical asset e.g. gold, USD. However, that would also mean that as more people buy up these tokens, the organisation is responsible for acquiring more physical assets. Hence, a lot of trust is placed with the organisation, which is unlike the decentralised nature of Bitcoin.

Examples: Bitcoin (BTC), DigixDAO (DGD), Tether (USDT), NuBits (USNBT)

3. Protocol Improvement

There are some tokens that do not aim to be a currency, but rather their focus is to **solve the problems that underlie blockchain technology** so that the technology can advance for even more uses.

These tokens usually try to resolve a particular limitation, like making it scalable so as to cope with the increased demand and usage of blockchain, or making it extra anonymous and secure for transacting sensitive money and information. Ark is another protocol improvement token that seeks to bridge the thousand of coins by building an inter-blockchain system so that different tokens can communicate.

Examples: RChain (RHOC), ZCash (ZEC), Ark (ARK), Zilliqa (ZIL)

4. Coin-as-a-Service (CAAS)

Developers play an integral role to maintaining and improving the blockchain, and developing cryptocurrencies generally require a high level of programming expertise and experience. Hence, some cryptocurrencies aim to simplify the programming so that more people can develop their own tokens.

CAAS refers to cryptocurrencies that **allow more people to create their own tokens**. For example, Ethereum is coded on Solidity language, which has a simpler syntax than Bitcoin, making it easier for programmers to master and write smart contracts with it. With that, a lot of developers have since created their own developer applications (dApps) that uses the Ethereum system.

Lisk (LSK) is a CAAS that employs Javascript, so they hope that even more people can create their own coins and tokens since Javascript is already a popular programming language. On the other hand, Simple Token (OST) created an interface that allows mobile application owners to develop their own blockchain tokens to be used in their apps.

Examples: Lisk (LSK), Simple Token (OST), Komodo (KMD), WAVE (WAVES)

5. Utility Token

Utility tokens are tokens that **users will consume in exchange for a service.** Each service provider runs his own tokenised system, where users will purchase the credits and use it in exchange for his services. This is similar to how you would purchase tokens to play (service) in an arcade (service provider).

For example, you can buy the tokens of a coin exchange to pay for your transaction fees for trading services on the exchange e.g. Binance Coin (BNB). You can also buy the credits of a marketplace in order to use its services e.g. Dentacoin (DCN), LockChain (LOC), SpankChain (SPANK).

The complication arises when users end up holding these tokens instead of using them, because the dollar value of the tokens appreciates and it becomes “more expensive” to pay for the services. People end up accumulating the tokens and selling it to one another, inevitably turning it into a Store of Value or even a speculation tool.

Nonetheless, these tokens were originally conceived to be bought and used, in exchange for the services rendered by the service providers. Majority of the 1500 cryptocurrencies are a form of utility token.

Examples: Steem (STEEM, Media), Basic Attention Token (BAT, Media), Augur (REP, Prediction), Binance Coin (BNB, Exchange), Dentacoin (DCN, Marketplace), LockChain (LOC, Marketplace), FunFair (FUN, Credits), SpankCoin (SPANK, Service), TRON (TRX, Services), and many many more.

Using The Table

Use Case #1: Classifying Many Altcoins

With so many cryptocurrencies out there, jotting down the functions of each coin helps me remember what they are. I also use the table as a tool to quickly explain the functions of a coin to someone who is new to it.

For example, if you are new to IOTA (MIOTA), I will quickly summarise it as:

1. Mode of Payment: Faster, more scalable, and fee-less transactions (at least in theory)
2. Protocol Improvement: Uses a Directed Acyclic Graph (DAG), which is an alternative form of Distributed Ledger Technology (DLT), as opposed to blockchain
3. Utility Token: Designed for Machine-to-Machine transactions, which makes it suitable for future Internet-of-Things (IOT) systems

Use Case #2: Portfolio Management

I created an excel spreadsheet to document the type of coins bought and what categories they fall under. This gives me an idea of how diversified my portfolio is. There are many things that you can add to the classification table like giving weights to the different categories.

It should be noted that the categorization of tokens is a subjective measure, and it is perfectly alright for you to disagree with how I would classify Ethereum or any other tokens. You can define the categories further to accommodate your portfolio.

Summary

The cryptocurrency taxonomy can be used for pedagogical purposes, for explaining and comparing coins, for managing portfolios, for analytics, or in any other ways that you deem useful. There is no restriction to how it should be used, just as the categorisation and categories should always be fluid. Feel free to share your thoughts on how you will use it, or improve upon it!

Cryptocurrency is still in its infancy. As the distributed ledger technology evolves, there will be more and more use cases, and our classification of these tokens will also need to change with time.

I believe that it is through sharing of such ideas and garnering feedback that we can improve existing systems. ***So if you find the coin taxonomy useful, feel free to share it with someone, adapt it for your own usage, and tell us below how you will use it or improve it. Thank you!***

. . .

Useful Links

What is a Distributed Ledger? - CoinDesk

Ledgers, the foundation of accounting, are as ancient as writing and money. Their medium has...

www.coindesk.com

What Is an ICO?

An Initial Coin Offering, also commonly referred to as an ICO, is a fundraising mechanism in which...

www.nasdaq.com

An (Institutional) Investor's Take on Cryptoassets

IMPORTANT NOTICE: This document is intended for informational purposes only. The views...

medium.com

This story is published in The Startup, Medium's largest entrepreneurship publication followed by

294,522+ people.

Subscribe to receive our top stories here.