

Information Technology

How can **BLOCKCHAIN** technology be of everyday use?



Blockchain technology started to gain traction when someone or a group of people by the pseudonym Satoshi Nakamoto created the first Bitcoin platform back in 2009. This decentralised technology can be viewed by many, as complex and confusing, but when one delves into how it works, the concept becomes very intriguing. This technology is relatively new; however, it is useful in many sectors since data is stored without involving a central third parties, therefore industries such as banks, food supply, insurance, property registrations can utilise its efficiency and reliability. Many blockchain experts predict that this technology will continue to thrive.

Here is an overview of what this technology is, highlighting a few examples on how it can be used in our daily lives.

What is Blockchain?

Blockchain is a decentralised chain of blocks connected to each other by complex algorithms. These blocks are none other than computers (also called nodes) passing information onto the next node which continuously verifies the data sent to it.

This data is confirmed by means of complex computer cryptographic algorithms constantly verified by the nodes which is managed by miners. These miners verify and process each data sent by blockchain users. Moreover, cryptography is studied by cryptographers; their aim is to write and decipher computer codes being generated on a given platform.

This fast process keeps on verifying each information given to it until it reaches the last node on the 'chain'. When the process is complete a new node is added to the chain.

The positive side of the blockchain technology is that it works on a decentralised platform. This means that no central third party is involved in the transactions. Everything recorded on the blockchain is managed by a Peer-to-Peer system, meaning that each stored data can be easily viewed by whoever is using the platform. In addition, each transaction stored in the blockchain is permanent and has with it a high degree of certainty that it cannot be changed or manipulated.

How can blockchain be used in our daily lives?

There are many positive useful cases of Blockchain Technology. Many companies are looking into ways on how blockchain can be utilised in various factions of the industry, such as government, identification, mobile payments, energy, waste management and the food industry. This technology is being explored and refined everyday by cryptographers to help engage more people to invest in such technology.

Blockchain based projects targeting different industries are being launched everyday. Most of these projects are designed for financial services while others help software and retail companies to store data to whoever is using the platform.

Here are some interesting projects which have been invented or are in process to be implemented by entrepreneurs.

Secure transferring of money overseas

A Chinese internet company, Alibaba,

has created a system to help their Filipino employees to transfer money quickly, safely and securely to their families residing in the Philippines. Money received will be transferred through a Blockchain wavering any transaction fees charged to the clients. With this new method, it will eliminate the bureaucracy behind transferring money to other countries as required by banks. These transactions can be easily done through a specific mobile application connected to the blockchain platform. Payments can be also done in cryptocurrencies. Since they are virtual currencies these are also exchanged to FIAT currencies (i.e. Euros, Dollars etc...) depending on the recipients' request.

Giving new identities to refugees

In this day and age, we are seeing many people coming from underprivileged countries, travelling with no valid documentation seeking for a better life in Western countries. Most refugees are fleeing from war-zone countries, or are subjected to human trafficking and other misfortunes, and do not have a fixed documentation identifying who they are. Blockchain technology is offering a solution to this problem. A Finnish Immigration Service is offering to prepay their Mastercard which is being developed by a Helsinki-based startup, MONI. This start up will ensure that all refugees have a digital identity, which will be created by a set of records once financial transactions stored in a blockchain. Whilst the government in Moldova is developing a digital identification which will be stored on a blockchain, to help identify children that live in rural areas. This will prevent traffickers to smuggle these children across borders.

Easy way to pay parking tickets

A New York City councilman, Mark Levine has proposed a bill to the council committee to start accepting Bitcoin as a means of payment for fines and car tickets. This observation arose when they noticed that a lot of Americans have access

to their digital wallets, which are filled with Bitcoins (a digital currency which can be accessed through a blockchain) and other hundreds of altcoins (other forms of digital currencies other than Bitcoin). These coins are used primarily to trade them on crypto exchange platforms, in return earning more coins which can be used as payments. When this alternative payment will be launched people violating road rules have to option either paying their fine with their cryptocurrencies or with FIAT currencies supplied by the government.

Bitcoin is an alternative virtual cryptocurrency that uses the Blockchain technology to verify transactions passed on the platform. There are hundreds of cryptocurrencies that are being traded daily, making them in direct competition with one another.

Online stores are accepting Cryptocurrencies as means of payment

Blockchain technology is widely used in a means of payment sphere. In due course companies are becoming aware of its value, hence accepting cryptocurrencies as means of payment. Online stores such as Microsoft, Expedia, PayPal and Shopify have been in the forefront to accept Bitcoin or other altcoins (alternative coins). This will not halt the option of using the traditional methods, but those that have digital wallets and prefer to pay with cryptocurrency will have an opportunity to do so. Moreover, PayPal stated that some of companies using their platform are also accepting Bitcoin now.

Certifying a supply chain

The internet unveils a lot of scandals of food companies misleading customers to buy food containing chemicals or being misled into purchasing horse meat instead of beef to customers without them noticing. In order to handle this situation, blockchain is at the rescue. Various com-

panies are working to create a decentralised supply chain to certify products that are being sold in the market. In this way products purchased will not depend on a centralised authority system that can easily make mistakes. In particular, a company working in the UK, created full profiles of companies it works with including their sold products, history of the company and ownership. With this information the client purchasing the product will get a good understanding of the history of the product.

Monitoring your healthcare

Blockchain technology can be used in healthcare. This technology can store medical records of patient hence manage authentication, confidentiality and data sharing. Multiple companies are doing great things with blockchain. One company is using blockchain to input disease outbreak inside the blockchain. This will help to combat any diseases that can be caused from disaster relief and response that can occur.

Transport system

Whilst in Malta, the Maltese government has partnered with Omnitudo to develop a blockchain platform for transport system. This platform is expected to aid and integrate enterprises with supply chains. This project will reduce costs and streamline services more effectively for daily commuters.

In this day and age, blockchain can be used everyday in different industry sectors. The system is continuously refined by cryptographers and IT specialists making sure that this technology will continue to grow steadily. Now society needs more awareness and engagement to learn more about what this technology offers.

Further information about blockchain and use cases of this technology can be found on our website via www.ellulschranz.com

