Blockchain and Cryptocurrency

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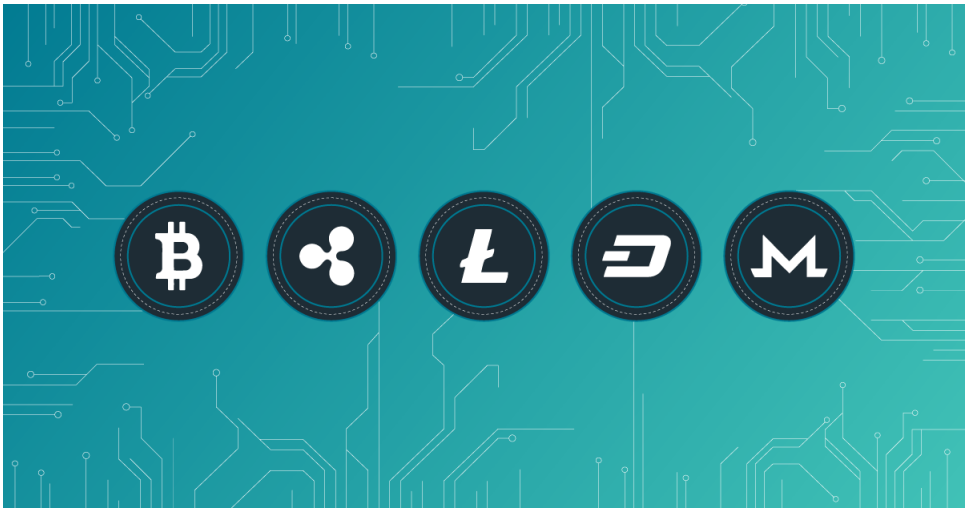

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Contents

1 What does it do?

Blockchain and Cryptocurrencies (crypto) have been on the rise in the last few years, gaining attention last year after the price spike in Bitcoin. The foundation of cryptocurrency is formed of Blockchain technology.

Blockchain technology is a new medium of making transactions, basically, this allows all who are involved on the cryptocurrency network to have a shared ledger of the transactions taking place, allowing everyone to have a copy of the transaction history. This makes crypto transactions more secure as if any information is tampered from one ledger, many ledgers available worldwide can identify the corrupted data and can deny/reject the information which was changed in the corrupted ledger. These transactions also have a layer of authentication, this is done by the customer digitally signing the transaction with their private key, the block then uses the customers public key to identify if the signature by the private key is correct (true). To confirm if the transactions are in the right order, the previous hash (identifier) is added to the next block to make sure that the transactions (this can be seen as labelling the new block with the previous blocks identifier). It is then up to real world users to to validate these blocks, these people are known as miners who are tasked with guessing the unique proof of work identifier, the miner who identifies the identifier correctly will gain a reward for example, in Bitcoin the miner will gain bitcoins.[1]

Many cryptocurrencies are based on blockchain as it provides higher security by the blockchains methods of validation, blockchain also allows cryptocurrencies to act independent (decentralised) as there is not a single person/organisation who has control over the currency. Currently blockchain technology is being used for trade purposes such as cryptocurrency but, soon we will have other methods for this kind of technology such as preventing stolen goods from being sold and the decentralisation of the internet.[1][3]

Cryptocurrency has seen a hike in popularity last year, gaining mainstream attention for the meteoric price rise of some of the most popular cryptos such as Bitcoin, Ethereum and XRP. Some of this growth can be linked to the modern infrastructure used by these platforms, currently, many bank transfers take 3-5 days while cryptocurrencies like XRP have a transfer rate of 4 seconds worldwide, enabling a much easier way to purchase property or other items overseas. This quick rate of transfer also allows local goods traders to receive money from customers compared to paying by Credit/Debt card. A big use case for crypto is to enable a much easier option for currency conversion, especially when purchasing property overseas. Allowing the sender to only convert their local currency to

one global crypto instead of the 180 different currencies[5] in the world today. It is very hard to predict what will happen to crypto in the near future due to the unstable prices of many popular cryptos, with prices drastically changing on a daily basis. We cannot deny the fact that cryptocurrency will increase in popularity and usage in the future however, many analysts predict a steeper price crash to the one experienced in the beginning of 2018. This creates uncertainty in investment however, a price crash may result it crypto prices steadying, making a more appealing reason to start trading.

2 What is the likely impact?

Last year, we saw the potential cryptocurrencies could add to our ever evolving technology centric society, with now 54% of the world's population having access to the internet, crypto could serve to be a new global leader in international trade[6]. As crypto is seen as the new world transaction system, we are seeing new job creation matching the need for new analysts and experts that have an advanced knowledge in these new technologies. Spike in crypto interest has also made crypto mining and usage within Australia more mainstream, with many Bitcoin ATM's opening in Australia and the huge price hikes in mid-range GPU's[2] as investors are looking to mine this "digital gold". As much as crypto will boom in the future, banks and real world currency will still remain dominant in the next few years however, we may see more involvement with banking and crypto as it has already been shown by the Commonwealth Bank, ANZ and Westpac, trialling the use of the XRP network[4].

As many people worldwide are worried about their own privacy, the decentralised nature of cryptocurrency along with its transactions not associated with their personal information, crypto can become a more secure way to make purchases without giving personal data to data mining companies. This ties in with the future impact of blockchain technology. Blockchain will allow users to take control of website and cloud storage features in the future by allowing the many users host, moving closer to a decentralised future. Blockchains other ability of validation can lead to new uses such as users of ebay or gumtree in the future not having to worry if the goods being sold are fake or stolen, allowing more buyer security and peace of mind, leading to an increase in online used goods sales.

3 How will this affect you?

Cryptocurrency and Blockchain technology will not have a impact on our personal lives as much as something like automated cars and robots, as crypto will not reach the same levels of use as current local currencies in the next decade however, crypto will have substantial growth in global money transfers and conversions. As IT is a global industry, the ability to work overseas and get paid in a crypto, which is used worldwide provides an opportunity to have a global office. The global use of crypto will also be useful for holidaying overseas in the future with much easier currency conversion and in some cases, not needing to convert money as many traders worldwide will accept crypto in the future. In our personal lives, crypto will not see much local usage for purchasing goods and services, banking is still very strong along with the Australia dollar for local trade and also crypto can also be quite confusing for many older users. The core principles of blockchain can be foreseen in the near future, the ability to keep a shared ledger between members of a family will allow for better tracking and validating family expensive. As mentioned in the previous question, local store owners can also use blockchain technology to identify if the goods they stock are real or fake and second-hand sellers can track if the goods are legitimate or stolen.

4 References

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