PROPERTY insights

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Property in a digital era

> Introducing bitcoin and its attributes

BY **BRIAN CHUNG**

ITH digital technology all the rage and taking the world by storm, we look at how science and automation has managed to change and revolutionise the way we do things, in this section, property. While the internet has changed the way we receive information and connect with others and the smart phone transformed the whole concept of a phone, we now look at the evolution of finance and how purchasing items, including a house, is going through reform with the introduction of bitcoin.

INTRODUCING **BITCOIN**

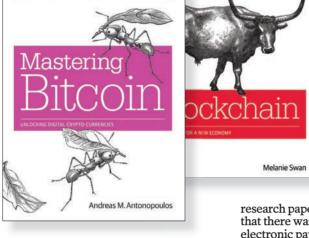
When people hear terms like "bitcoin" and "blockchain", many are vague while some may not even be familiar with these words. But for the technology industry adept, bitcoin and blockchain are common as these new-age technology concepts and modus operandi have been around, perhaps less widely known in Southeast Asia as it is in the West and China.

For the uninformed and in the dark, bitcoin is a technology that has established a new electronic payment method using "digitised money" made with digital cryptography, otherwise known as cryptocurrency. This system of payment is carried out when a user uses "bitcoin currency"

(or cryptocurrency) to pay for goods by transferring the currency to another user (seller) within the bitcoin community.

Each transaction is recorded in a public data ledger known as "blockchain" and it is here where all the transactions that have taken place within the bitcoin community are

Transactions are not valid until added to the Chain Tampering is immediately evident.



stored. The amazing thing about this system is that anyone in the bitcoin community is able to without the need of an

Sound too good to be true and a little risky? Well, the reason there is no intermediate party necessary is due to the network bitcoin technology is regulated on.

MODUS OPERANDI AND MORE

The bitcoin network is founded on a "peer-to-peer network system (P2P network)" which is explained as "a network of computers/mobile configured to allow certain files and folders to be shared with

validate transactions that take place intermediary.



BITCOIN ATTRIBUTES

developing and growing. Like many talked about, people are weary hence, there will be sceptics who dissuade others about the system they themselves are unclear

> With that, the Sun's Brian Chung shares what he learnt of this new method of transaction and currency when he attended a talk by renowned entrepreneur, author and expert on bitcoin Andreas M. Antonopoulos.

Below, Antonopolous shares important information on bitcoin.

everyone or with selected users". As a result, the "participants" are in control of their transactions, making everyone equal within the bitcoin community, which is also transparent.

It is said that bitcoin technology was first created in 2008 by a person or a group of persons under the pseudonym 'Satoshi

Nakamoto" in a research paper. The research stated that there was need for a new electronic payment method, one using digitised money. The analysis also included the future of bitcoin, its benefits, capabilities and potential.

The system was implemented on Jan 3, 2009. And after just a few years, bitcoin grew to become a whopping US\$12 billion globalised economy.



2) Bitcoin is **borderless**: Like the internet, bitcoin is not restricted to a country's rules and regulations as it has its own protocol with no distinction across countries.

cryptocurrency.

- 3) Bitcoin is neutral: Bitcoin does not take the identity of the participant into any consideration. It only validates the transaction that takes place between participants. This attribute also allows participants to remain anonymous.
- S 4) Bitcoin is **censorship resistant**:
 Every transaction in the bitcoin network cannot be frozen censored or cancelled. Like the internet, the bitcoin system is a global digital economy with one currency.
 - Bitcoin is a decentralised system: The bitcoin network has no central institution or centre point of control. This trait ensures that there is no one major target for hackers to concentrate their attacks on. Instead, hackers have to create attacks on every single participant's software with different forms of virus and codes to hack into one computer.
 - 6) Bitcoin is **scarce and limited**: Bitcoin is a system of value like gold but in digital form. This makes it a system that is not based on credit and debit. It also

makes bitcoin a singular global currency with no exchange rate between countries.

7) Every bitcoin transaction is permanent and immutable: The transaction of everyone in the community is verified by everyone in the system. Once it is verified, the transaction will be permanently recorded in the

blockchain.

8) Bitcoin is a **constantly** innovative technology: The open source nature of the bitcoin technology allows other people to further improve on it. There are many other cryptocurrencies based on the bitcoin technology. Moreover, the bitcoin technology is dependent on the internet, which makes improvement and innovation necessary.

Bitcoin transactions can be done via smart phones and computers by downloading the application and software. Users do not need to register themselves to be part of the bitcoin network as all "participants" are referred to by codes and "signature of one's device".

However, iPhone users need to remember their iTunes password to download the application. In addition, the device that one has downloaded the bitcoin software on must remain connected to the internet in order for one to use the bitcoin method of payment.

Follow our column next week on the application of bitcoin in

[Note: All charts courtesy of Bitcoin Malaysia.]

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A Blockchain is a cloud-based database shared by every participant in a giver system, in the case of this example. It's a currency trade. The Blockchain contains the complete transaction of the cryptocurrency or other record keeping in other appplications. Think of it as a cloud-based peer-to-peer ledger. **HOW BLOCKCHAIN WORKS** The first **Block** is created online This Block is broadcast to every Alice wants to and represents the transaction. send money to Ben. party in the network. ? Those in the network approve the The Block is then added to the Chain which Ben receives the transaction and validate it provides a permanent, nonrepudiable and money from Alice. transparent record of the transaction.

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According to Antonopoulos, there are many cryptocurrencies. Some of these cryptocurrencies include Dash, Monero, Ethereum, Z-Cash and Litecoin, among others. These cryptocurrencies all share the same technology as bitcoin and are based on the blockchain format.