2.Blockchain and cryptocurrencies

Blockchain is the method of storing information in a series of segments called blocks, each block is connected via a “chain” that tracks the changes of information with a timestamp. What makes blockchain so innovative is that it works on a peer-peer network, which means it is decentralised and distributed across a large number of computers. Decentralising information reduces the ability to tamper with the data. As a new block is created a computer must first solve a cryptographic equation. When the equation is solved the terminal will share the solution to all other computers on the network, the network then verifies the solution and will add the block to the chain. Due to the complex nature of the cryptographic equations that require to be solved, and the verification process involved with creating each block we can trust the information. Due to the decentralisation of blockchain no intermediary is required to authenticate a segment of data which in turns will save the end users money and time.

Cryptocurrency is a form of currency such as bit-coin that is completely virtual. Cryptocurrency utilises blockchain. Cryptocurrencies use blockchain in order to verify transactions, and prevent double spending of the same “coin” for example if person A transfers a “coin” to person B, Person A will broadcast out to the decentralised network that a coin is being transferred from A to B. every computer will receive this transfer information and store it, “miners” on the network will then authenticate the cryptographic equation and verify the transaction. Once verified the computer that solves the equation will broadcast the solution to all computers on the network and the transaction will be complete. Miners are people who configure there computer to use a portion of the processing power of the hardware in order to verify the cryptographic equation, miners are incentivised to do this by receiving a small fee on any transaction they verify. Cryptocurrency also has the benefit of being anonymous, all you need is the wallet number that you are sending the “coin/s” to in order to transfer them.

Due to the popularity of cryptocurrencies there are a large number on the market, they are beginning to be used in everyday life to pay for things more and more. Bitcoin being one of the more popular cryptocurrencies currently have ATMs, and debit cards. Cryptocurrency is starting to become more and more accepted as a form of payment internationally.

Blockchain is being used primarily for cryptocurrency however in the future it can be implemented to store and confirm multiple other data sets, from deed titles, digital IDs, Digital voting, to tax regulation the possibilities are endless.

The impact of the development of blockchain technology and cryptocurrency can be both negative and positive. As Cryptocurrency is a virtual currency that is decentralised it has no requirement for a bank, the positives of cryptocurrencies is that you can use it globally, the blockchain technology reduces the risk of counterfeit coins and that by using a currency such as bitcoin you can remain completely anonymous. Blockchain technology itself can reduce paper-based tracking procedures, reduce risk in data tampering, and identify deficiencies in processes. If cryptocurrency is adopted over the next few years as the popular currency it could completely negate the requirement of banks, however it may open up the opportunity for large mining-based operations.

In my daily life this will personally not affect me to much, if a change to this technology becomes a societal norm I will easily adapt and convert from my currency banking system to crypto currency. However due to a large portion of the populations apprehension to change I believe this may take some years before it is possible. The instant transactions, low transaction fees, and transaction confirmation the blockchain makes possible would be a great benefit to myself and everyone. I do believe that the senior generation in society will be hesitant to change and will struggle with this if we implement it.