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## Bitcoin is a currency built with mathematics

Bitcoin is a virtual currency. It exists only in a digital form and it does not have physical notes or coins. It can be used to buy things on the Internet. The reason why people can use bitcoin is that it exists at the international level and is not controlled by any government or company. This can be very useful for many companies. Since they work on the Internet now and trade in different countries. Companies and individuals want to avoid paying transaction fees and taxes when exchanging currency. When using bitcoin, they do not need to pay any of these fees.

Electronic payment between the two parties occurs without intermediaries and it cannot be canceled, there is no mechanism for canceling the confirmed transaction. No one can block the funds (arrest), even temporarily, except for the owner of the private key or the person to whom it became known. But the provided multi-signature technology allows us to attract a third party and implement "reversible transactions". With the help of a special scripting language, it is possible to make other versions of smart contracts, but it is not available, unlike the more recent Blockbin systems.

The drawback of Bitcoin is that there are currently not many traders who will accept it as a currency. Another drawback is that the digital currency is a new technology, and as a result, the price of bitcoins varies considerably. There may be other difficulties, such as hackers stealing bitcoin.

So how does bitcoin work?

Bitcoin makes sure that transactions using bitcoins are safe. Bitcoin using something called cryptography of an elliptical curve to ensure the security of transactions between owners. Cryptography using an elliptical curve is a public key type based on math to guarantee a secure transaction.

Bitcoin turns around with this problem, using something called "blockade". This is the register of all transactions to date, which everyone can see. The block-chain shows when the Bitcoins are created, and when they pass between people.

Bitcoin has a very clever way of making sure that the block is accurate. If you could falsify the block chain, you could steal or duplicate the currency, and bitcoin again will not work, because for this you need an accurate register of all transactions.

The block-chain checks for accuracy by computers that solve huge problems with crunching. Bitcoin relies on thousands of computers around the world to solve complex problems that check transactions and prove that the block chain is accurate. Computing power is not provided for free. The calculations require very powerful computers that cost a lot of money.

Bitcoin should provide an incentive for people to solve these problems with the number crunch, rewarding people with new bitcoins when they solve the problem. This is the only way to create new bitcoin. Running the number of crunch that checks the block chain is called "mining" bitcoins. The computing power needed to develop bitcoins is now so great that individuals usually do not participate, unless they pool their resources.

What solves the bitcoin price?

Any day you can see the cost of bitcoin in British pounds or US dollars. The value of bitcoins is determined by the laws of supply and demand - there is a limited number of bitcoin in circulation, and therefore their price is determined by how popular they are, and how many people want to trade in bitcoins at this time.

One of the most interesting remarks with respect to bitcoins is that they are designed in such a way that fewer new coins will be released in time. From the economic point of view, this creates some very interesting questions about what will happen to the value of bitcoins in the future.

Bitcoin is a mathematical currency

Bitcoin can only function thanks to smart mathematics, which is in the background, allowing it to exist. In fact bitcoin is often called "crypto-currency", because its existence depends on cryptography - the division of mathematics related to the storage of information.

## Литература

1. http://www.mathscareers.org.uk/article/bitcoin-currency-built-with-mathematics/