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BLOCKCHAIN TECHNOLOGY BEYOND CRYPTOCURRENCY: APPLICATIONS IN HEALTHCARE AND SUPPLY CHAIN MANAGEMENT

Blockchain technology is one of the most interesting and important technologies today. Many people usually associate it only with cryptocurrencies like Bitcoin, but in reality it has many other uses. In my opinion, not everyone understands how useful blockchain can be in everyday life. It helps store and share data in a safe and transparent way. Nowadays, blockchain is used in different areas such as healthcare, logistics, and finance [1]. This topic is important because today we need better and more secure ways to manage information.

Blockchain is a decentralized digital system that records information on many computers. It means that no single person or organization controls it. Each block contains some data, a time, and a special code that connects it to the previous block. Because of this, it is very hard to change or hack the data. If someone tries to change something, others will see it immediately [1]. To explain it more simply, blockchain is like a shared notebook where many people write information, and everyone can check if it is correct. That is why many companies are interested in using this technology.

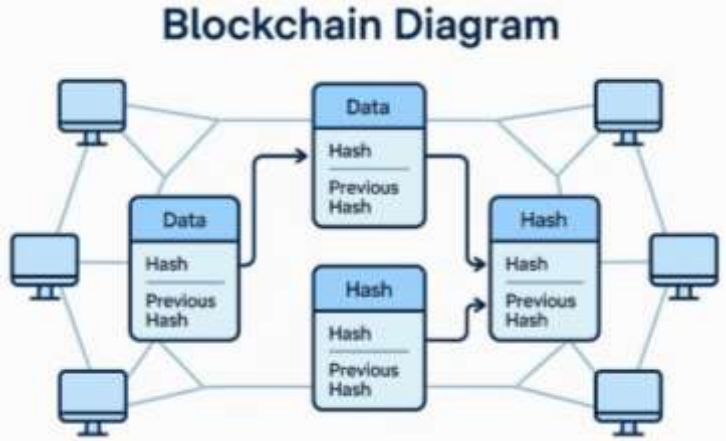

Figure 1. Blockchain diagram

Blockchain is used in many areas, not only in cryptocurrency. For example, in healthcare it helps store patient data safely. Doctors can share medical information without the risk of losing or leaking it. It can also help track medicines and support research. In logistics, companies can track products from the factory to the customer. Big companies like Amazon or Walmart use similar technologies to control the quality of products and know where they come from. In finance, blockchain is used to make payments faster and sometimes cheaper because there are fewer intermediaries. It is also used in voting systems and digital identity, which shows that it has many possibilities.

There are several advantages of blockchain. First of all, it is very secure because data cannot be easily changed. It is also transparent, so everyone can see the information. I think this is very important in areas where trust is needed, like banking or healthcare. Another advantage is that it does not need intermediaries, so it can save

money. It can also make processes faster and more efficient [1]. Because of this, many companies are interested in using blockchain in the future.

However, blockchain also has some disadvantages. It needs a lot of computing power, which can be expensive and not very good for the environment. Also, it can be slow when there are too many transactions. Another problem is that there are still not clear laws about blockchain in many countries. This can make companies unsure about using it. Finally, not everyone understands how blockchain works, so it can be difficult to use in some places.

Another important aspect of blockchain is its use in smart contracts. Smart contracts are digital agreements that automatically execute when certain conditions are met. For example, in business, a payment can be made automatically when a product is delivered. This helps reduce the need for intermediaries and makes processes faster and more reliable [1]. In my opinion, this is one of the most interesting uses of blockchain because it can simplify many everyday operations and reduce human errors.

It is also important to consider the future of blockchain technology. Many experts believe that blockchain will continue to grow and become more widely used in different industries. For example, it can be used in education to store diplomas and certificates, so they cannot be faked. It may also be used in government systems to improve transparency and reduce corruption. I think that as technology develops, blockchain will become more accessible and easier to use, which will increase its popularity [2].

In conclusion, blockchain is a very promising technology that can be used in many areas, not only in cryptocurrency. It helps make systems safer, more transparent, and more efficient. At the same time, it still has some problems that need to be solved. In my opinion, blockchain will become more popular in the future, but people need to learn more about it. I think it can really change how we use technology in everyday life.

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