

Blockchain of blockchain technology grow? well precisely

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Blockchain technology, or blockchain technology, is one of the fashionable terms among computer lovers, financiers and knowledgeable users of the geek culture in general.

Surely you have also heard this term before or have read it somewhere on the Internet, if not, it does not matter because in this article we are going to delve into it and to break down the concept and functioning of this technology. First we answer, why does the popularity of blockchain technology grow? Well precisely because it is a tool that is called to be the engine of the fourth industrial revolution of mankind. A resource that will undoubtedly mark a before and after in the way in which many daily activities are carried out both in society and in industry, and that is already happening in several cases that we will explore later. # Blockchain and Bitcoin If you have heard the term “ blockchain”, it most certainly was closely related to the Bitcoin digital currency, to other cryptocurrencies or to banking.

And it is precisely the economic / financial area has been the first to take advantage of this technology, generating alternative economic ecosystems that break paradigms of individuals, corporations and governments. Even this technology initially appeared under the name of Bitcoin Technology, as announced by its enigmatic creator Satoshi Nakamoto in 2009, referring to blockchain only as a public access book where records of transactions made with this digital currency are kept. . However, with the passage of time the word “ Bitcoin” became more related to cryptocurrency than to technology,

which made room for the term “Blockchain Technology”, which goes beyond financial applications and enters in other industrial and social areas.

What is blockchain technology and how does it work? Basically the blockchain or chain of blocks is a database whose records are stored equally in distributed nodes that make up a network, without central nodes that control others or that have different information from the rest. This distributed scheme is one of its main advantages over other storage networks: it is practically impossible to hack because it is not enough to attack one or two nodes of the network, but they would have to do it with absolutely all in order to really cause damage. This property is inspired by peer-to-peer (p2p) storage and communication networks, which have been popularized by the use of torrents, which are distributed download services on the Internet.

But, besides being an impossible database to attack what else makes the blockchain technology so innovative? For the use of “cryptographic hashes” is another of its main virtues, making each and every one of its records are stored using these mathematical functions, which makes the registration process completely secure and at the same time impossible to modify the information once it is posted in said database. Blockchain technology uses cryptography to ensure that records are encrypted and only those with a private key can access them not to modify them, but to demonstrate that they own the data recorded there. To better visualize this advantage, it is enough to locate ourselves in the records of property titles, which today are subject to many cases of falsification due to the unreliability offered by the

paper and the vulnerability of digital records stored in centralized servers. With the blockchain technology, such information can be registered in a digital manner that will be unmodifiable in time and only the holders of the respective private keys can verify the ownership of that digital file.

All this without the need to use a third party that certifies the authenticity of said key, since the blockchain technology itself performs such a certification task. But this is not all, the main innovation of the blockchain technology – and by which it is already cataloged as the most important invention of the 21st century – is that it can transmit a digital file between the nodes of its network without having to duplicate it. So that you understand it; When you make a bank transfer, the digital data (the transfer itself) is duplicated in your account and in that of the other person. In the physical “ cash”, when you give the money to another person that money is not duplicated. This makes the exchange of data as we do with objects in the real world, a property that until now had not been possible to replicate in the digital world and that serves to emulate the behavior of important daily activities, such as the exchange of money, for example. Now, we know that blockchain technology is a distributed database impossible to hack whose records are unmodifiable and are protected by cryptography functions and that through this network you can transmit digital data without having to duplicate or copy them. But how can this technology directly impact our daily lives and be beneficial for all? # Applications of blockchain technology As already mentioned, the economic and financial sector was the first in which the block

chain technology reflected its numerous advantages, with Bitcoin cryptocurrency being the most notable and exemplary application to date.

And the security, speed and decentralization offered by this technology far exceeds any way of transferring money today, so the revolution that has achieved this digital currency in the economy and banking is not just a fad, it is basically the future of money today. For those who have not used Bitcoin or cryptocurrencies yet, suffice it to say that the operation of this digital currency makes transferring money as easy as sending an email. With what is a fast, safe, cheap and without limitations by corporations or governments to send and / or receive value through this network connected to the Internet.

Thanks to the advantage of transferring digital assets without having to duplicate them, and having a transaction record that can not be modified, Bitcoin and cryptocurrencies (such as Litecoin, Ethereum, DASH and others) are the best applications of blockchain technology at present, at least in the economic / financial field. However, several banks and companies in the Fintech sector have already begun to research, develop and execute applications based on blockchain technology to improve their products and services; some using the public network of Bitcoin or other cryptocurrencies, while others have directly decided to establish their own networks of distributed nodes to use what are now known as “ private blockchains”. The public records of transactions offered by the blockchain technology, although not directly related to the real identity of the users, are not something that the banks really like; that is why these institutions prefer to maintain the

privacy of their customers' data when establishing these private blockchains networks. However, the security, speed and difficulty of attacking these platforms are attractive enough weight for banks when it comes to betting on blockchain technology as a tool for the evolution of their banking platforms. # Blockchain beyond finance The blockchain technology is already being used in other areas of the industry, for example in the insurance sector. Its potential for this sector lies in the impossibility of forging documents and modifying records offered by the storage of data in a chain of blocks.

With this advantage, insurers and their customers can rest assured that the contracts and agreements established between both parties will not suffer alterations and that the authenticity of said digital documents can be tested at any time easily and quickly by using private keys relevant cryptographic. Precisely in terms of digital documents that concern contracts and agreements, there is already a wide range of applications in this field that start from the ownership rights of land and property, to the authorship of digital content that is traded on the Internet as videos, photography, article and more. Another application that has more impact in these early years of blockchain technology, is the registration and audit of supply chains for different industrial processes. This is, basically, the digital register in the blockchain of data corresponding to different stages of the production of a marketable good, since the raw materials are collected until it is placed on the market. This would give both companies and consumers the opportunity to certify the origin of a product, the methods and tools used in its

preparation and even the data concerning the place where the product was finally consumed.

One of the most striking examples is the British startup Provenance that uses blockchain technology to record data on the entire fishing process of various tuna varieties in Indonesia. With this application, the company offers users the opportunity to check that the origin of these products is not water that is not authorized for fishing, or that involves the use of labor related to labor exploitation practices. Other applications so far put into practice focus on the fight against piracy in the music industry, the certification of drugs, the safeguarding of title deeds of diamonds and luxury watches, registration of data from nuclear power plants and applications for electoral processes. and other governance activities. # Blockchain: a tool for the future In summary, the blockchain technology eliminates the need for intermediaries to be able to certify the authenticity of a document, as long as it can be digitized for its registration in the chain of blocks. By dispensing with third parties such as notaries, human error ceases to be a factor of weight that can unbalance an agreement; making two parties that do not trust each other can place their trust in this innovative technology that is executed according to the previous consensus among the actors involved. Blockchain technology has come to revolutionize many areas of our industry and our society, simplifying processes that until now depend on intermediaries and strengthening the security of recorded documents against their modification and / or theft. In the next blog we will focus on the tools that are emerging in the area of ??

finance and alternative investments and how we can use them for our own benefit.