



THE CONCEPT ENTERING OUR LIVES WITH
BLOCKCHAIN: DECENTRALIZATION

Tuğçe ARSLAN

With the popularization of cryptocurrencies and Blockchains, we often hear about the concept of “Decentralization.” Hence, terms such as decentralized currencies, decentralized exchanges, decentralized organizations, and decentralized internet dominate the press and social media.

So what does this decentralization mean? Are blockchains as decentralized as thought?

We reviewed the concept of Decentralization in the light of expert opinions under two main headings, Blockchain, and Web 3.0 discussions.

What Does Decentralization Mean in the Blockchain?

Blockchain, in computer terminology, means an ever-growing register of transactions kept in chained blocks. Although the foundation of the technology was laid in the 1990s, the first Blockchain in its modern sense emerged with Bitcoin. On October 31, 2008, Satoshi Nakamoto, whose real identity is unknown, launched Bitcoin and reported that the Bitcoin infrastructure is wholly based on the Blockchain.

Blockchain technology is based on the following principles: Anonymous, distributed, decentralized and unhackable. Furthermore, the technology works as open-source code. In other words, everyone can see all the transactions on the blocks, and users can remain anonymous. Moreover, all data is privately encrypted; it becomes almost impossible to delete, change and steal.

The concept of decentralized Blockchain technology means that control and decision-making authority is taken from a central entity (an individual, organization, or group) and distributed over a network.

Advantages of Decentralization

The most important advantage and even purpose of this are eliminating third parties. On the Blockchain, no one has to know or trust anyone. This way, if a member’s ledger is altered or corrupted, the majority of members in the network immediately notice it. Thus, any malfunction that may arise can be automatically resolved by the stakeholders in the chain without the need for the intervention of a third party.

Another of the most significant advantages of the decentralized system is the reduction of vulnerability. In centralized systems monopolized by certain actors, there are risks such as depletion of resources, bottlenecks, insufficient incentives for good service, or failure to provide promised services due to corruption. In decentralized systems, chances are minimized.

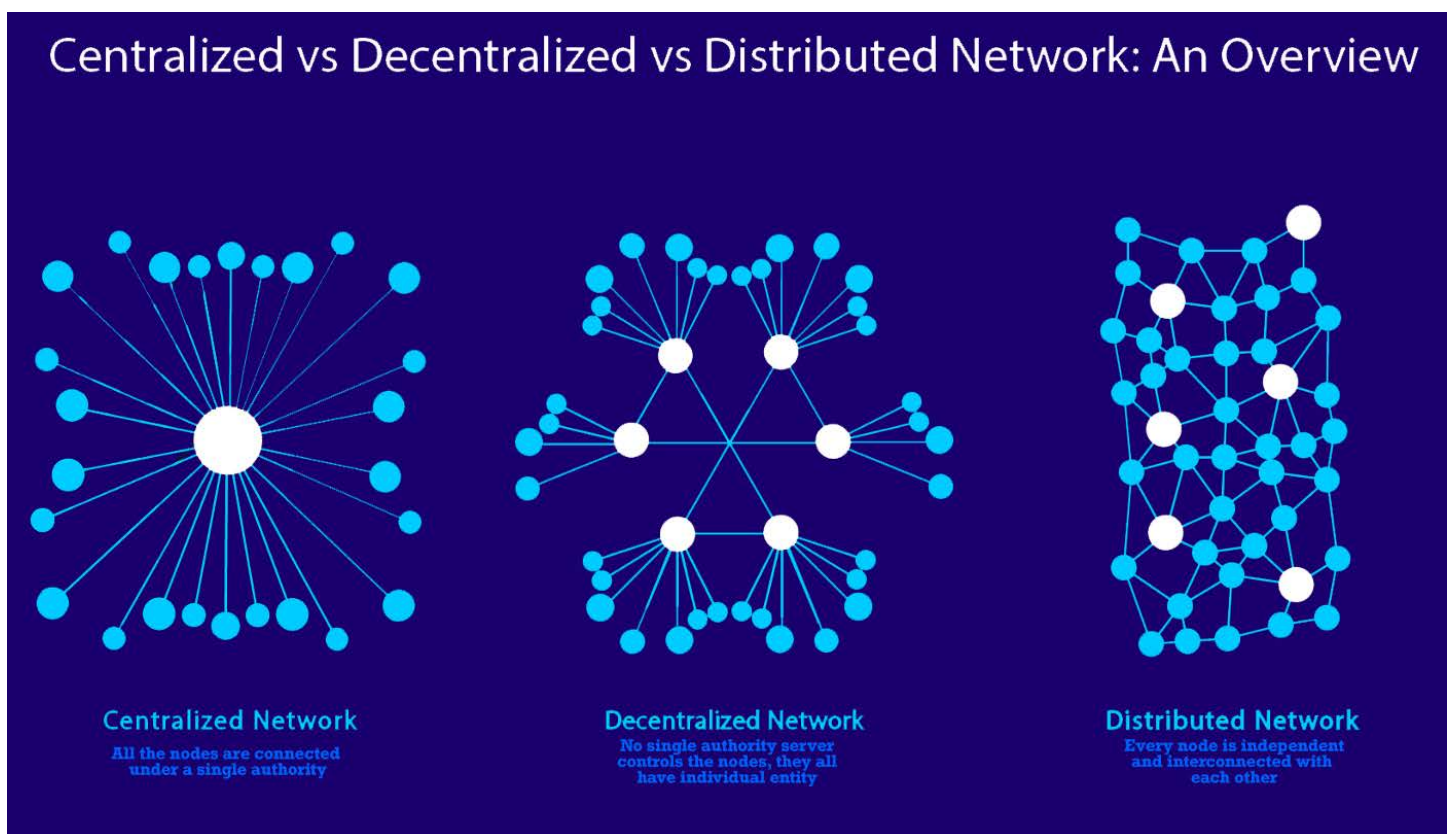


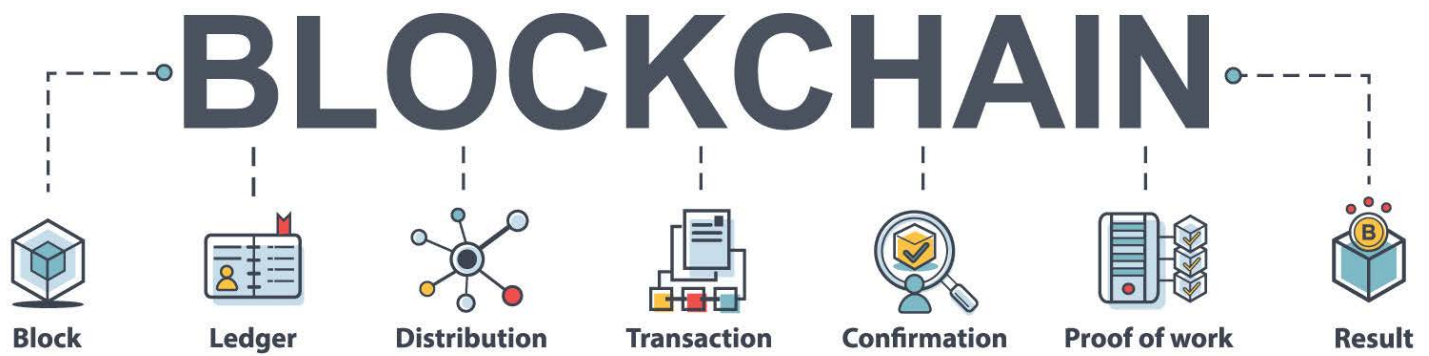
There are three types of decentralization.

However, this does not mean that Blockchains are 100 percent decentralized. Because any Blockchain application aims to provide the service that its users need. Sometimes this may or may not include some degree of Decentralization.

Vitalik Buterin, the founder of Ethereum, in his article titled “The Meaning of Decentralization” in his Medium account, lists three types of decentralization: **Architectural Decentralization**, **Administrative Decentralization**, and **Logical Decentralization**.

So, what mechanism takes over decisions, such as approving new transactions on the blockchain? The concept of decentralization here distributes the decision-making authority from individual administrators to groups, and at this point, “consensus mechanisms” come into play. Consensus mechanisms can be defined as decision mechanisms containing protocols, algorithms, or other computer systems that enable cryptocurrencies to work and meet the necessary conditions for making decisions within the group and adding a new block to the Blockchain.





ANUMAK & COMPANY

aNumak & Company is a global management consulting firm, an India private company limited by warranty. It is a company with expertise in creating scalable business models for different industry verticals. The Company strives to provide solutions through consulting, digital transformation, and innovative products that solve modern business problems. Offering on-site and offshore support and unique strategies, aNumak & Company transforms traditional business models into high-performance, dynamic, and distinctive business enterprises. It brings insights from core domain experts to deliver the best possible solutions to drive growth. aNumak & Company and each of its member firms are legally separate and independent entities. For more detailed information about aNumak & Company and its member companies, please visit <https://www.anumak.com>

This material was prepared by aNumak & Company. This material (including any information it contains) is intended to provide general information on a particular topic(s). This material may contain information obtained from publicly available information or other third-party sources. aNumak & Company does not independently verify such sources and is not responsible for any loss resulting from reliance on information obtained from such sources. aNumak & Company does not provide any investment, legal, or other professional advice or services through this material. You should seek specific advice from the relevant specialist(s) for such services. This material or information is not intended to be considered the sole basis for any decision that could affect you, your business, or the operations of the company. Before making any decision or taking any action that could affect your finances or business, you should consult a professional.

No institution at aNumak & Company can be held responsible for any loss suffered by any person or institution due to access to, use, or reliance on this material. By using this material or any information it contains, the user accepts he entirety of this notice and the terms of use.

CONTACTS

Amith Kumar

Chief Executive Officer,
aNumak & Company
amith@anumak.com

Neha Anush

Chief Operating Officer,
aNumak & Company
neha.anush@anumak.com

Tuğçe ARSLAN

Chief Content Officer and PR
aNumak & Company
arslan@anumak.in

Cesibel Rodriguez

Chief Branding Officer,
aNumak & Company
cesi@anumak.com

Ricky Devaya

Chief Human Resource Officer – India,
aNumak & Company
ricky@anumak.com

Vilas Khole

Chief Delivery Officer – India,
aNumak & Company
vilas@anumak.com

Karthik Reddy

Chief Sales Officer – UAE,
aNumak & Company
karthik@anumak.in

Iván Muñiz Rothgiesser

Sales Director,
aNumak & Company
ivan@anumak.com

CONTRIBUTORS

Gino Mori Valenzuela

Client Partner – Retail,
aNumak & Company
gino@anumak.in

Diana Marcela Rios

Client Partner – Retail,
aNumak & Company
diana@anumak.in

Víctor Freundt

Client Partner – Education,
aNumak & Company
victor@anumak.in

Agyemang Mensah Kwadwo

Graphic Designer,
aNumak & Company
agyemang@anumak.in

aNumak & Company

marketing@anumak.com
Pr@anumak.in - info@anumak.com