



# Blockchain and The Open Web

## A Brief Introduction

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The blockchain is a technology - or rather, a computer architecture paradigm - with enormous development potential. Initially known to the public for being the digital technology underlying the Bitcoin Network, the blockchain has since been identified as the general purpose technology destined to revolutionize the management of online transactions, and more generally, as a suitable protocol for transmitting and recording data or information in a secure, traceable and immutable manner without the mediation of third parties or intermediaries.

The blockchain can thus be considered a “trustless” technology because it disintermediates the relationship between parties (who interact with one another in a peer-to-peer manner), decentralizes control of the network, and protects its user’s through cryptography.

The blockchain is based on four fundamental principles:



**Decentralization:** A blockchain is a shared, decentralized database. The fact that the storage of information does not reside on a single server but on a network of computers makes it almost impossible for malicious actors to alter or overwrite the data contained therein.



**Transparency:** Each participant has access to the entire history and all such data related to each transaction hashed onto a blockchain. This allows them to verify the authenticity of any transactions over time.



**Security by Design:** After a transaction has been approved, it is automatically encrypted and linked to the previous transaction.



**Inalterability:** Once a block is approved, it becomes part of the chain and cannot be deleted or altered in any way except through the consent of the participants.

According to the World Economic Forum, blockchain is one of the seven technologies destined to change the world, especially relating to the high levels of security characteristically associated with it. For this reason, according to the WEF, by 2025 there will be activities built around the fundamental value proposition of blockchain that will generate more than 10% of global GDP.

With blockchain, any type of public and private ledger can be efficiently managed. In fact, it can be used in all contexts where it is necessary to handle an online relationship between multiple people or groups. There are many promising developments that will

soon have a positive impact for a variety of domains. Prospective application fields include e-government and e-voting, smart contracts (especially in real estate) and notary services for payments and financial services, patents and copyright, cloud services, document storage, health data management, logistics and supply chain management systems, as well as the Internet of Things.

## The Prospect Of An Open Web

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With blockchain at its core, new open-source protocols are currently being built to ground a new internet commonly known as The Open Web. As a concept, the Open Web encompasses systems and protocols that are built upon a blockchain-based infrastructure that is transparent, permissionless, and open-source. When multiple applications run on different blockchain networks, entire ecosystems of inclusive and 'open' services and products arise to provide users' with value that is not centrally controlled, and data that cannot be privately harvested.

# NEAR

NEAR Protocol is a 3rd Generation Blockchain Platform built with scalability and usability in mind. The NEAR Ecosystem is home to a number of cutting edge projects in the crypto space that hold the promise of building the Open Web. Geographically diversified, NEAR features headquarters across 3 continents (USA, San Francisco; China, Shanghai; Switzerland, Zug). The NEAR Community, NEAR Guilds, and the NEAR Team are growing the NEAR Ecosystem to be a home for native crypto, enterprise blockchain, and emerging technology solutions around the world. Learn more about NEAR at [NEAR.org](https://near.org) or join the discussion on [Telegram](https://t.me/nearprotocol).