

A blockchain stores information in groups that are called blocks. These blocks are linked in a linear chain, individually time-stamped and completely dependent on the previously generated one. Each of these blocks contain three types of information: transactional data, the block's hash, and the previous block hash. In the scope of a blockchain, hashes work essentially similar to a fingerprint – a unique string of numbers that identifies each block. By consequence this implies that if the content pointing to a hash is altered, the block's identity will also be as the hash is calculated based on the contained information.

Ethereum is an open-source, blockchain-based platform that additionally is able to implement scripting in the form of smart contracts which in turn open up ways to take it further than solely being a monetary transaction mediator. In short, "Ethereum can be thought of as a transaction based state machine, where transactions can change the state and the state keeps track of interactions" (CodeTract 2017). The term state in this context is meant in a computational sense. At its conception in 2013, the Ethereum white paper begins by laying out the essential intention behind it as well as what is novel about this platform "What this project intends to do is take cryptocurrency 2.0, and generalize it – create a fully-fledged, Turing-complete (but heavily fee-regulated) cryptographic ledger that allows participants to encode arbitrarily complex contracts, autonomous agents and relationships that will be mediated entirely by the blockchain" (Buterin 2013).