Digital signature

A digital signature is the digital fingerprint of an electronic record. When data are transmitted between a sender and a receiver, the use of digital signatures guarantees that the message was created and sent by the claimed sender (authentication), and that the message was not altered in transit (data integrity). The sender cannot deny having sent the message (non-repudiation).

Distributed ledger

A distributed ledger is a digital ledger – a list, spreadsheet or database – that is shared among nodes in a distributed network. The term is often used interchangeably with "blockchain". Correctly speaking, however, a blockchain is only one type of distributed ledger.

Encryption

Encryption is a cryptographic technique that applies a mathematical function (often referred to as an algorithm) to make information hidden or secret. This process converts readable information (plaintext) into an illegible random sequence of characters (cyphertext). Encryption is a two-way process. Encrypted data can be decrypted using a code or key. Encryption contributes to data privacy (confidentiality) as it protects data in transit and at rest from access by unauthorized users through the use of the keys as a means of authenticating users. However, the inherent reversibility of the encryption process makes it insufficient by itself as a guarantee of information security, which is why more secure protocols such as Blockchain use encryption in combination with other cryptographic techniques such as hashing.

Encryption consists of two types of algorithms: symmetric key algorithms* and asymmetric key algorithms.*

Ethereum

Ethereum is the second largest public blockchain after Bitcoin. Ethereum's quantum leap lies in the concept of smart contracts, i.e. computer programmes that self-execute the terms of a contract when specific conditions are met.

Fiat currency

A fiat currency is a currency that a government has declared to be legal tender, but that is not backed by a physical commodity such as gold or silver.