



# Blockchain 101

What is it, and how does it apply to academia?



Ethereum

Bitcoin









**bitcoin**  
CRYPTOCURRENCY

**bitcoin**  
CRYPTOCURRENCY

**bitcoin**  
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# Blockchain according to Wikipedia

A blockchain, originally block chain, is a continuously growing list of records, called blocks, which are linked and secured using cryptography. Each block typically contains a cryptographic hash of the previous block, a timestamp and transaction data. By design, a blockchain is inherently resistant to modification of the data. It is "an open, distributed ledger that can record transactions between two parties efficiently and in a verifiable and permanent way". For use as a distributed ledger, a blockchain is typically managed by a peer-to-peer network collectively adhering to a protocol for inter-node communication and validating new blocks. Once recorded, the data in any given block cannot be altered retroactively without the alteration of all subsequent blocks, which requires collusion of the network majority.

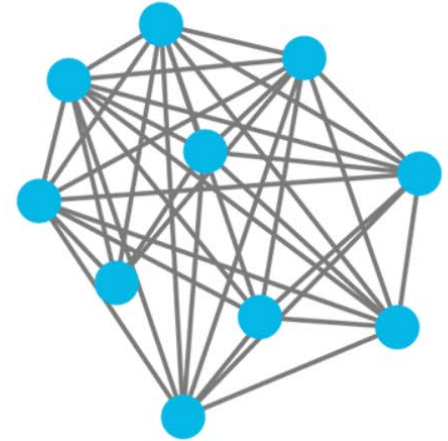
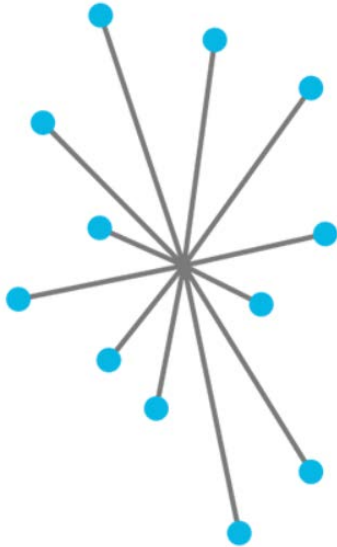
YAWN!

YAWN!





## Centralized versus distributed



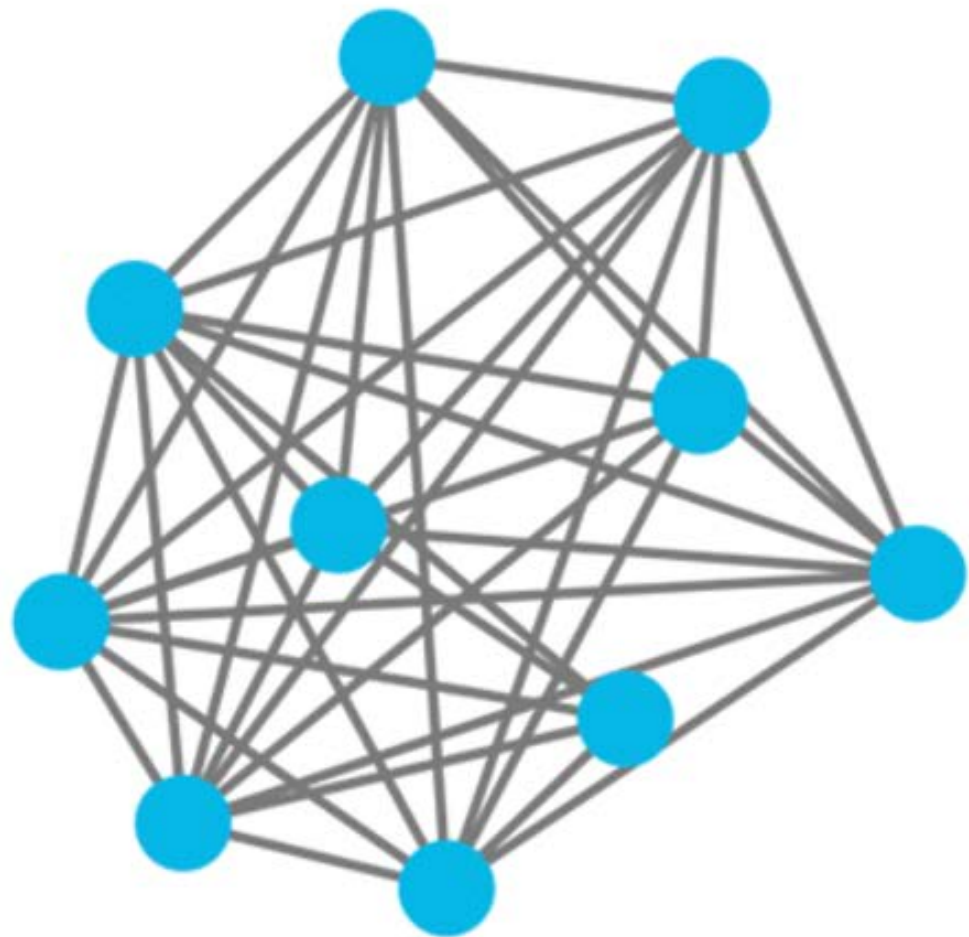


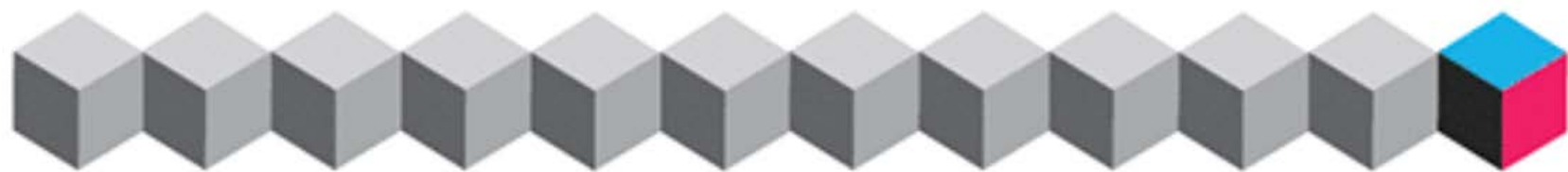
## Key components of the blocks

1. A unique identifier or “a hash”
2. The data being stored
3. The “hash” of the previous block













Grade School

Graduation





**Thank you.**

