Blockchain technology

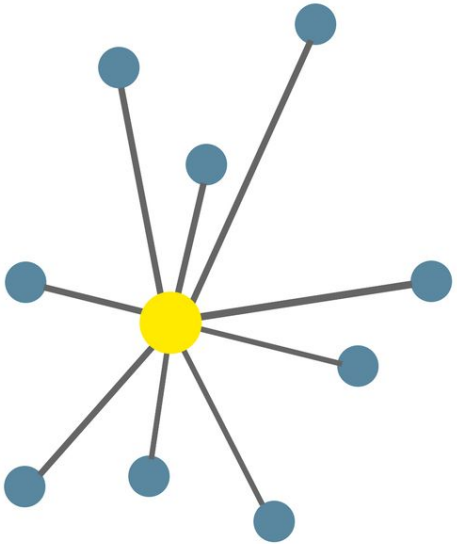
Overview

What is Blockchain Technology?

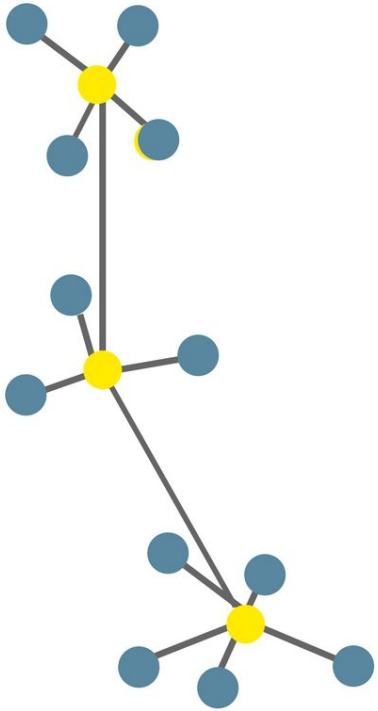
1. Transparente
2. Sécurisée
3. Fonctionnant sans organe central de contrôle


Bloc 46
Transaction 92
Transaction 93
Transaction 94
Transaction 95
Bloc 47
Transaction 96
Transaction 97
Transaction 98
Bloc 48
Transaction 99
Transaction 100
Transaction 101
Bloc 49
Transaction 102
Transaction 103
Transaction 104
Transaction 105

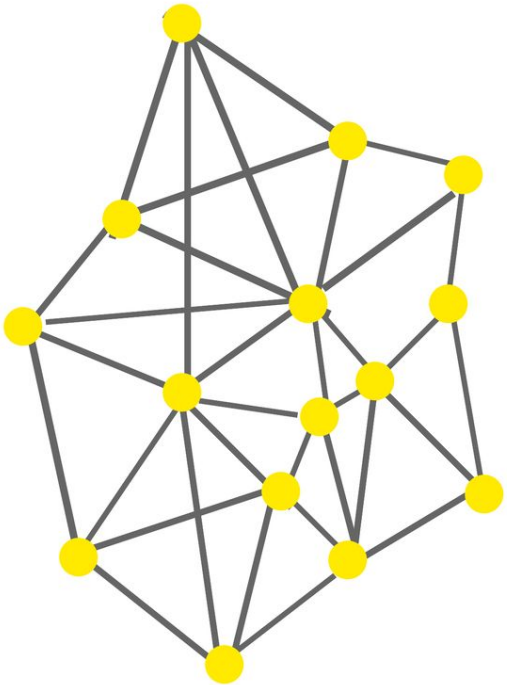
Three stages of computer network evolution



Centralized



Decentralized



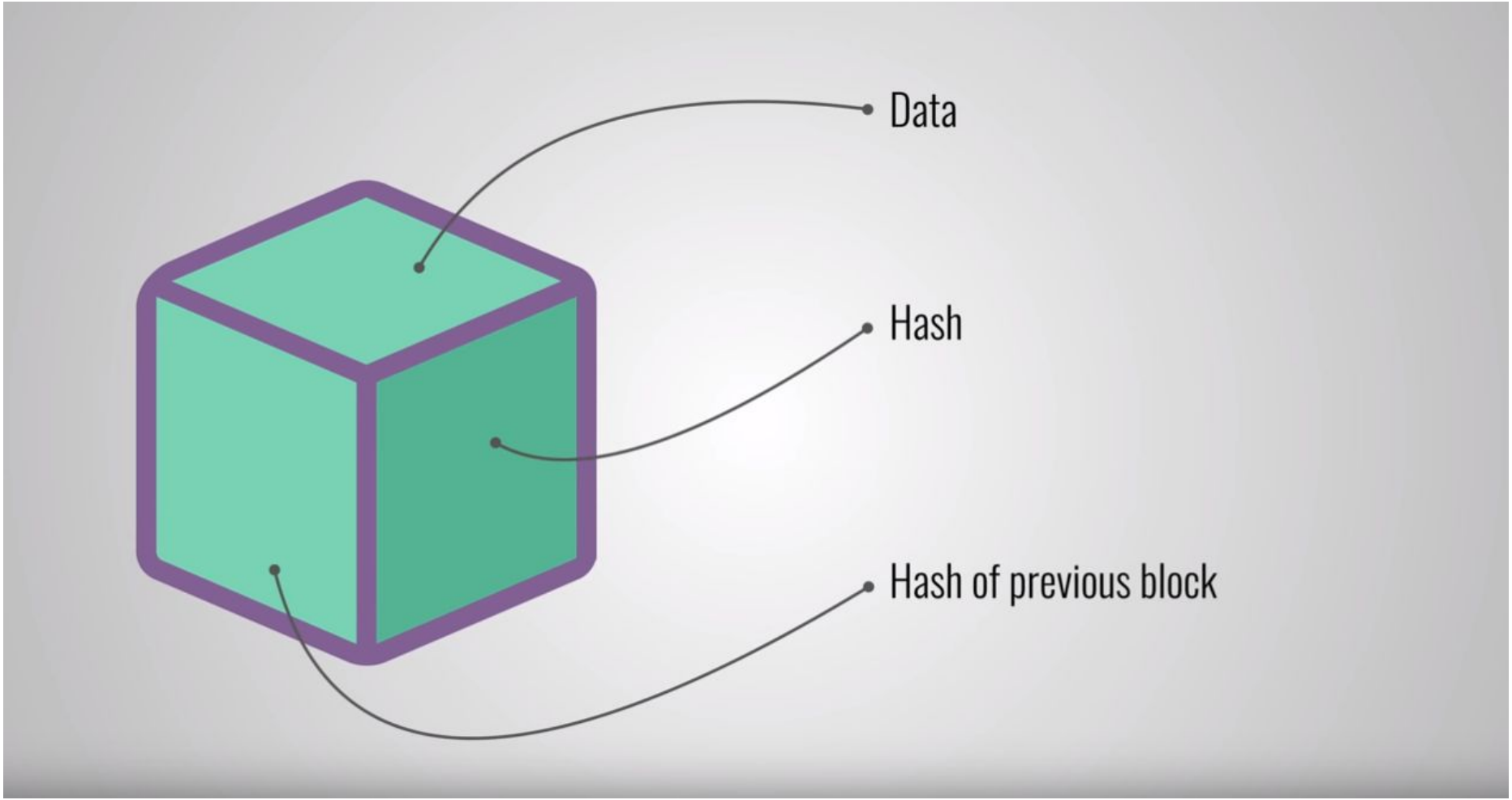
Distributed

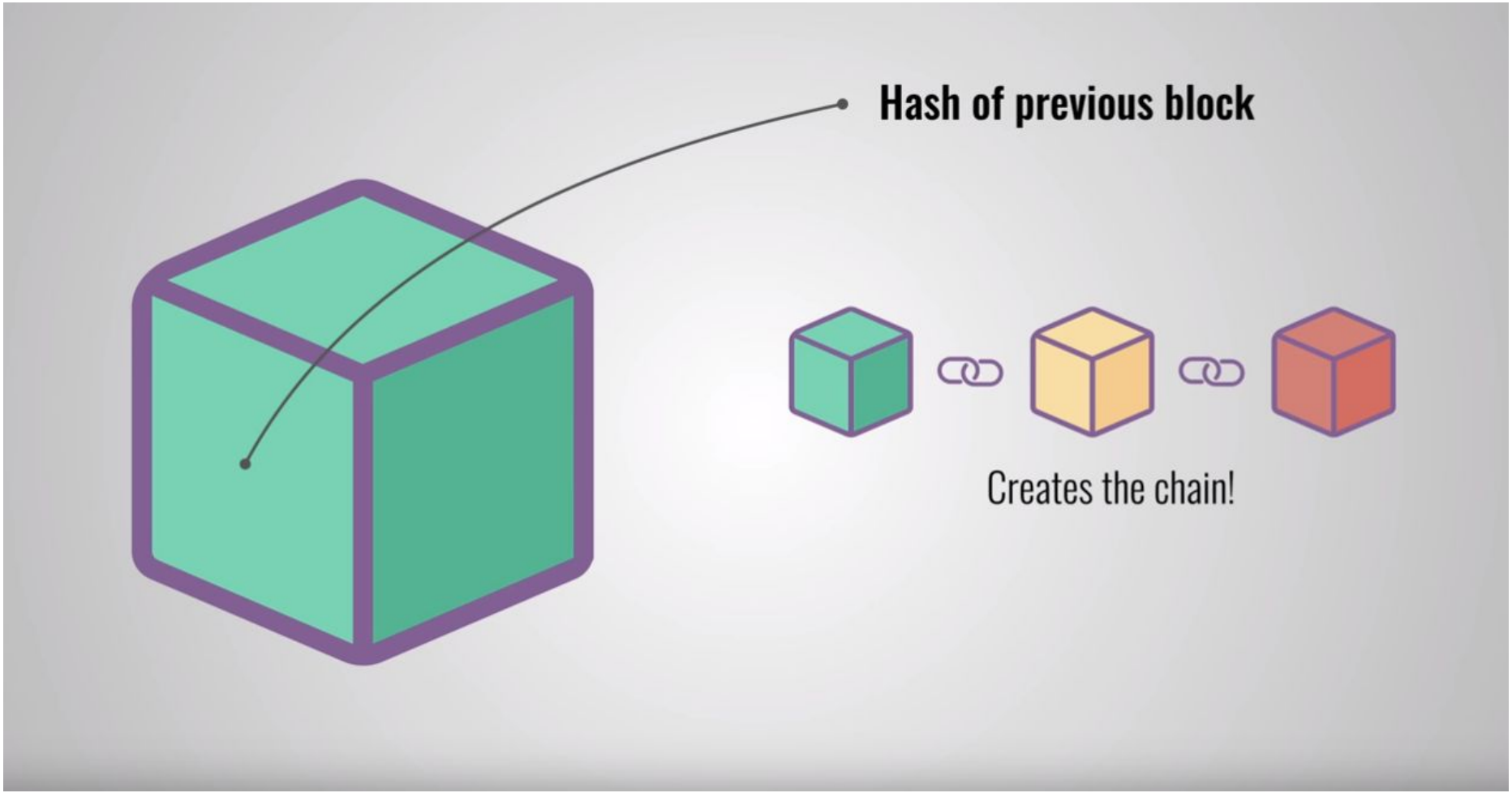
Source: Daxx.com


WHO IS
SATOSHI NAKAMOTO?

How it works ?

https://andersbrownworth.com/blockchain/hash


Data
Hash
Hash of previous block


Hash of previous block
Creates the chain!

Blockchain use cases

1. Cryptocurrency

A cryptocurrency is a digital or virtual currency that is secured by cryptography,

which makes it nearly impossible to counterfeit or double-spend.

Many cryptocurrencies are decentralized networks based on blockchain technology—a distributed ledger

enforced by a disparate network of computers.

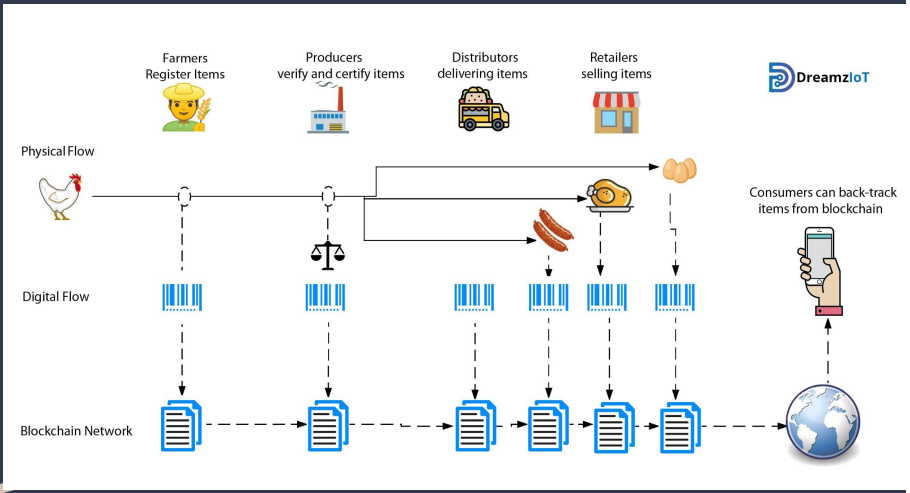
A defining feature of cryptocurrencies is that they are generally not issued by any central authority,

rendering them theoretically immune to government interference or manipulation.

https://bitcoin.org/en/

https://ethereum.org/

Food tracking



Today's global food supply chain made it possible to bring foods from across the globe. However,

the biggest challenge for the food industry is to ensure food safety, lower food fraud & at the same time keeping low operating cost.

In reality, the food we consume and buy from the market is highly insecure than we would like to imagine.

Food fraud is estimated to be a $40 billion a year problem and there are several high profile instances of fraud happened in food supply, for example whether wood shavings discovered in parmesan to the 2013 or Horsemeat scandal in the UK, and Chipotle's E.coli outbreaks in 2015, there are many examples that proved that food supply chain is not that secure and it directly affects consumer health and food companies a big law suite

Online Music

Several startups are coming up with ways for musicians to get paid directly from their fans,

without giving up large percentages of sales to platforms or record companies.

Smart contracts can also be used to automatically solve licensing issues,

and better catalog songs with their respective creators.

Mycelia and Ujo Music are two startups creating blockchain-based solutions in the music industry.

https://ujomusic.com/

Government

smartdubai.ae

Government systems are often slow, opaque, and prone to corruption.

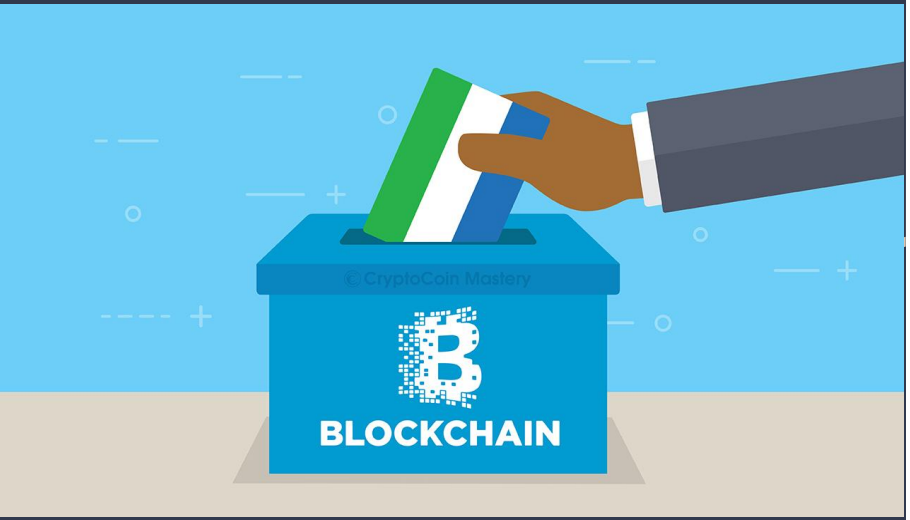
Implementing blockchain-based systems can significantly reduce bureaucracy and

increase security, efficiency, and transparency of government operations. Dubai, for example,

is aiming to put all its government documents on the blockchain by 2020.

https://www.smartdubai.ae/ar/initiatives/blockchain

Voting



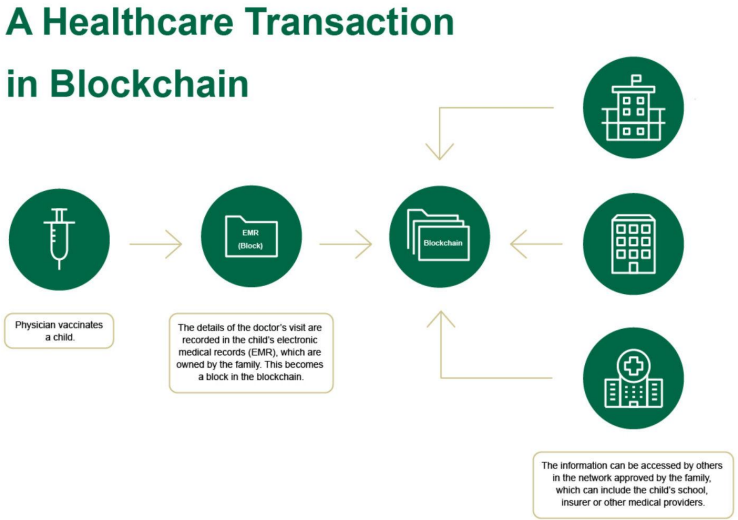
Probably one of the most important areas of society that the blockchain will disrupt is voting.The 2016 US election is not the first time certain parties were accused of rigging election results.

Blockchain technology can be used for voter registration and identity verification, and electronic vote counting to ensure that only legitimate votes are counted, and no votes are changed or removed. Creating an immutable, publicly-viewable ledger of recorded votes would be a massive step toward making elections more fair and democratic. Democracy Earth and Follow My Vote are two startups aiming to disrupt democracy itself through creating blockchain-based online voting systems for governments.

https://democracy.earth/

https://followmyvote.com/

Healthcare



Another industry that relies on many legacy systems and is ripe for disruption is healthcare.

One of the challenges hospitals face is the lack of a secure platform to store and share data, and they are often victims of hacking because of outdated infrastructure.

Blockchain technology can allow hospitals to safely store data like medical records and share it with authorized professionals or patients.

This can improve data security and can even help with accuracy and speed of diagnosis.

Gem and Tierion are two companies that are working on disrupting the current healthcare data space.
https://tierion.com/

https://gem.co/

Types of blockchains.

There are three primary types of blockchains, which do not include traditional databases or distributed ledger technology (DLT) that are often confused with blockchains.

1. Public blockchains like Bitcoin and Ethereum
2. Private blockchains like Hyperledger and R3 Corda
3. Hybrid blockchains like Dragonchain

What is a public blockchain?

Let’s explore the different types of chains. And start with public blockchains, which are open source. They allow anyone to participate as users, miners, developers, or community members. All transactions that take place on public blockchains are fully transparent, meaning that anyone can examine the transaction details.

1. Public blockchains are designed to be fully decentralized, with no one individual or entity controlling which transactions are recorded in the blockchain or the order in which they are processed.
2. Public blockchains can be highly censorship-resistant, since anyone is open to join the network, regardless of location, nationality, etc. This makes it extremely hard for authorities to shut them down.
3. Lastly, public blockchains all have a token associated with them that is typically designed to incentivize and reward participants in the network.

What is a private blockchain?

Another type of chains are private blockchains, also known as permissioned blockchains, possess a number of notable differences from public blockchains.

1. Participants need consent to join the networks
2. Transactions are private and are only available to ecosystem participants that have been given permission to join the network
3. Private blockchains are more centralized than public blockchains

Private blockchains are valuable for enterprises who want to collaborate and share data, but don't want their sensitive business data visible on a public blockchain. These chains, by their nature, are more centralized; the entities running the chain have significant control over participants and governance structures. Private blockchains may or may not have a token involved with the chain.

What is a hybrid blockchain?

Dragonchain occupies a unique place within the blockchain ecosystem in that it's a hybrid blockchain. This means that it combines the privacy benefits of a permissioned and private blockchain with the security and transparency benefits of a public blockchain. That gives businesses significant flexibility to choose what data they want to make public and transparent and what data they want to keep private.

1. The hybrid nature of Dragonchain blockchain platform is made possible by our patented Interchain™ capability, which allows us to easily connect with other blockchain protocols. Allowing for a multi-chain network of blockchains
2. This functionality makes it simple for businesses to operate with the transparency they are looking for, without having to sacrifice security and privacy.
3. Also, being able to post to multiple public blockchains at once increases the security of transactions, as they benefit from the combined hashpower being applied to the public chains.

Thank you !