



What is Blockchain?

A specific type of database, that stores data in a unique way; in blocks that are then chained together.

When new data comes in, it is entered into a new block. Once the block is filled with data, it is chained to the previous block in chronological order.



What makes Blockchain so unique?

It is decentralised: No single group or person has control. Decentralised blockchains are immutable, which means the data is irreversible. The transactions are permanently recorded and cannot be changed without all the blocks before it being changed (impossible!).

10101 Some Blockchain applications to know:

- Secure sharing of data (think medical, financial or other personal data)
- Cross-border payments
- Personal identity security
- Supply chain & logistics monitoring
- Proof of provenance
- Original content creation
- Decentralised finance
- Smart contracts
- Insurance claims
- Cloud storage
- Paying employees
- Electronic voting
- Real estate
- Energy supply contracts



Secure data sharing

Secure, decentralised data storage and retrieval systems are needed for data such as medical records.



Supply chain / proof of provenance

Blockchain is a game-changer for transparent supply chain.

Enables fast, cost-effective delivery of products.

Enhances product's traceability.

- How do you know the medicine you're taking really originates from where it says?
- How do you know the 'organic' food you're paying top dollar for really is organic?
- How do you know that premium priced Cartier watch is authentic, and not an imitation?



Original content creation

Blockchain gives power back to original content creators by eliminating / reducing:

- Content piracy
- Content duplication
- Lack of control around copyright & plagiarism



Smart contracts

Smart contracts are programs stored on a blockchain that run when predetermined conditions are met. They typically are used to automate the execution of an agreement so that all participants can be immediately certain of the outcome, without any intermediary's involvement or time loss. They can also automate a workflow, triggering the next action when conditions are met.



Real estate

With blockchain technology, multiple people can buy tokens of a particular property and co-own the building together - this is the tokenisation of a property, allowing fractional or partial ownership of the asset.



Energy supply contracts

Enables consumers to trade & purchase energy directly from the grid, rather than from retailers.

Virtual Power Plants (VPP) is an important part of the energy internet.