

11 Use Cases For Blockchain

Whitepaper

11 Use Cases For Blockchain

Whitepaper

What is Blockchain?



As cryptocurrencies such as bitcoin and Ethereum have established themselves as new protocols on the internet over the last decade - the underlying technology, blockchain, and DLT, have gained increasing focus.

Blockchain technology does not have to be hard to understand. It is quite simple to understand at its roots. In its simplest form, the technology exists as a shared database filled with entries where every entry has to be confirmed by other peer-to-peer network participants.

To visualize a blockchain in front of us, we can think of it with the commonly used comparison, a google document, in mind. This google document is heavily encrypted and verified and every entry in the sheet depends on a logical relationship to all its predecessors and is agreed upon by every participant in the network.

What is interesting about this technology is its many potential use cases beyond just being the technology behind cryptocurrencies such as Bitcoin and Ethereum. In this short paper, we have highlighted some of the most interesting use cases and applications across industries such as finance, healthcare, business trade, government, and many more.

11 Blockchain Use Cases and Applications by Industry

1. Payments and Money

Blockchain-based solutions improve how we send money to and from each other. It does this by enabling new and innovative ways to securely and efficiently create an irreversible ledger of sensitive data and transactions. These features make blockchain-based or blockchain-inspired solutions excellent for international payments and money transfers.

For example, today, anyone who has access to the internet can send huge sums of money to someone completely without a third party via bitcoin's blockchain. A process that previously involved several third parties and was often associated with high costs.

Another example is the growing interest from central banks around the world in adopting the technology or at least adopting new technology which is built on several of the features found in blockchains such as bitcoin and Ethereum. According to the Bank of International Settlements (BIS), over 70% of central banks are looking at issuing a digital currency on a blockchain. On September 9th 2020, Mastercard announced its launch of a Central Bank Digital Currencies platform.

Several more examples can be brought up here, among others Banco Santander's launch of the world's first blockchain-based money transfer service through the use of Ripples solutions or the Swedish Bank, SEB, that have been exploring the use of Ripples blockchain-based solutions for the last couple of years.

All of these solutions and many more that are not mentioned in this text are creating new solutions for how value is being transferred between people and people, corporations and corporations, people and corporations and also machines to machines and people to machines. In many of these cases, blockchain is found to be an enabling key technology.

2. Trade Finance and Supply Chain Management

Over the last couple of years, and increasingly during 2020, the use of blockchain in supply chain management has increased across many sectors. Improving quality throughout the supply chain while saving unnecessary costs for businesses and consumers alike, proposes a colossal network effect which directly connects the interests of consumers to those of businesses via the blockchain.

To name a few examples of projects, we can look at Coca Cola's tech partner, Coke One North America, who implemented blockchain solutions in 2019, based on the Hyperledger Fabric blockchain.

Another example is OriginTrail which is an ecosystem committed to improve interoperability and connectivity between supply chain networks. It is often called '*The Google of Supply Chains*'. 'OriginTrail protocol is a trusted data exchange used across many sectors, including food production, fashion, agriculture, pharmaceuticals, compliance, and finance.

11 Blockchain Use Cases and Applications by Industry

3. Healthcare

There is no doubt that the healthcare sector has been praised as an industry that can benefit greatly from a blockchain.

During 2020, there have been several suggestions on blockchain based-solutions for data sharing of COVID19 test results, one of many projects is MiPasa platform that uses Hyperledger Fabric.

There are many many more examples around the world and to name one of them, we can look at the Non-profit organisation Canadian Blood Services who is working on a proof-of-concept to track blood donations in real-time which would streamline the processes around blood sharing enormously.

4. Fraud Prevention and Anti Money Laundering

As been described in previous use cases, blockchain technology has had increased attention in the financial services industry for a number of reasons. One of these areas is to make Fraud Prevention and Anti Money Laundering (AML) better and more efficient.

Blockchain technology could for example be used in more efficient sanctions and AML enforcement contexts. For instance, the balance between keeping transactions private or to support more traceability is a debated topic. Here, the technology could allow for the implementation of KYC/AML procedures based on the size of a transaction. This would allow for keeping transactions with high value transparent and transactions of the low value private or anonymous. A feature that is investigated by many central banks around the world today.

5. Insurance

When it comes to the insurance industry, blockchain technology enables for improvements for efficiency, cost savings, time to payout, transparency, and fraud mitigation. Furthermore, it enables data to be shared in real-time between different parties involved in the insurance industry which is something the industry is missing today.

One area that is growing in interest is the use of Smart Contracts for business process automation. For example, through the use of the Ethereum Enterprise Alliance blockchain and the Baseline Protocol, insurance companies could create a trusted, tamper-proof, industry-wide record of claims.

6. Decentralized Finance

Decentralized Finance, or DeFi, is a whole class of blockchain technology applications that aims to create decentralized versions of traditional financial instruments.

Lending is an example of a DeFi use case. DeFi Lending apps can connect borrowers directly with lenders, mitigating the need for an intermediary. The lender and the borrower are bound to each other via a smart contract which is responsible for:

- The correct distribution of the interest generated.
- Dictate the whole loan agreement based on predefined conditions.

This open and public nature of DeFi lending can be beneficial for both the borrower and the lender.

11 Blockchain Use Cases and Applications by Industry

7. Identity

Identity is one of the more interesting use cases. First of all, it is a big topic, and we need to have a common definition of Identity. Therefore, how we define 'identity' becomes important. According to the United Nation Convention on the Rights of the Child, article 8, the most basic identity must consist of the following data:

- Full name.
- DOB (date of birth).
- Nationality.
- A national identifier (social security, driver's license, etc.)

Identities with the above properties around the world are in most cases not digital and approximately 1.1 billion people around the world have no proof of identity and are often among the poorest people in the world. Blockchain technology allows for the creation and management of digital identities through the use of the following components

- Identity Management
- Embedded Encryption
- Decentralized identifiers (DIDs)

One example that uses the above components is IBM's Self Sovereign Identity solution Pulse which enables for lifetime portable identity for any person, organization, or thing that does not depend on any centralized authority and can never be taken away.

By digitizing identities and the use of blockchain, we can massively improve what is included in identity and how people around the world can access their digital identities.

8. SME Financing

Blockchain for small and medium enterprise financing has been one of the hottest use cases since the early days of blockchain and especially with the emergence of the Ethereum blockchain that enabled for Initial Coin Offerings (ICOs).

Since then, many enterprises and policymakers have devoted themselves to understanding the technology and been working on various use cases.

One such use case is the faster and more flexible sharing of credit data between banks, financial institutions, and other involved players. The Chinese fintech and insurtech Ping An is one player active in this area. They have launched their blockchain platform for SME Financing for faster credit data sharing and processing of loans between multiple banks.

9. Government

There is enormous potential in how a blockchain-based government can improve people's data protection, streamline how processes involving government are carried out and prevent fraudulent and abusive use of government services.

Furthermore, there are opportunities including decreasing the amount of human labor in processes to prevent corruption. There are many more use cases ranging from digital voting systems, identity management systems and, legal entities management that can benefit from the use of blockchain technology.

Most governments in well-developed countries have begun experimenting with blockchain in one way or another. The government of Canada is one example

11 Blockchain Use Cases and Applications by Industry

of a government that has been exploring with the use of public blockchain Ethereum for handling government contracts to increase the transparency. and reliability of sharing public data. There are many more governments around the world experimenting with blockchain technology through various working groups and forums.

In Europe, the EU Blockchain Observatory & Forum have accelerated their research in blockchain and another interesting project is the upcoming introduction and launch of the European Blockchain Services Infrastructure (EBSI).

10. Real Estate

The Real Estate industry is one of the largest, if not the largest, asset class in the world. The total global value is worth hundreds of trillions of dollars, with residential property making up a vast majority of it. This industry opportunities for improvements that could benefit from the use of blockchain technology.

Tokenisation of real estate assets to improve the management processes around real estate and not the least when it comes to buying and selling properties in a digital way. Tokenization also opens up for fractal ownership. Meaning that instead of owning a whole building, an individual can own a tenth of the building or an apartment. This reduces barriers to entry to the real estate market drastically.

Tokenisation can also reduce the costs and increases the speed of exchanging assets and would open up for many innovation opportunities.

11. Sports

Finally, our 13th use case is within Sports where tokenisation on blockchain platforms enables for new revenue models and loyalty programs. One example of this is the European football club Barcelona's partnership with the Maltese startup Chiliz to build the "Barca Fan Tokens".

Contacts

Webpage:

<https://academy.ivanontech.com/business>

Email:

Info@Ivan.Academy



[@ivanontechacademy](#)



[@ivanontechacademy](#)



[@ivanontechacademy](#)