

Digital Transformation

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DIGITAL TRANSFORMATION



Digital Transformation – Means What?

- Digital Transformation is not just about Fintech startups, DeFI and cryptoassets of start-ups.
- DT is mainly about how Traditional financial services businesses stay competitive and innovate.
- Digital innovation is transforming traditional financial services.
- Innovations in financial technology such as mobile money, peer-to-peer (P2P) or marketplace lending, roboadvice, insurance technology (insurtech) and crypto-assets have emerged around the world.
- Artificial intelligence (AI), cloud services, and distributed ledger technology (DLT) are transforming wholesale markets in areas as diverse as financial market trading and regulatory and supervisory technology (regtech and suptech).



Common DT Project

Business thinking and objectives

Project attributes and outcomes:

1. High Standardisation
2. Highly Automated functions
3. Faster Performance
4. Insight-driven functions
5. Improved customer and employee experience
6. Better Service Delivery



DT Trends

- Adoption of digital operating models was greatly speeded up in 2020.
- Businesses which invested in big data governance and analytics gaining competitive advantage.
- Understanding on how to better exploit AI and ML is improving.
- IT outsourcing industry is changing due to mergers and acquisitions.
- Rapid rise in the specialist consultancy businesses to advise on transformation.
- Expanding public cloud adoption.
- Increasing focus on measuring value from digital innovations.



Artificial Intelligence (AI) & Machine Learning (ML)

- For financial services AI and ML great force multipliers when it comes to data analytics.
- AI is when machines or computer systems behave in a way that simulates human intelligence. AI results in a computer replicating or performing a task that a human can, either at an equivalent quality or a higher quality.
- Machine learning enables computers to accumulate knowledge, so they can learn without being explicitly programmed.
- Artificial intelligence (AI) and machine learning (ML) will go beyond just using big data to gain better insights. Prediction is the great benefit of AI



DT Market Impacts

The key impact of DT is on economic frictions.

- Economic frictions such as information asymmetries and economic forces such as economies of scale and scope.
- These frictions and forces give rise to financial intermediaries and shape market structure.

DT is bringing major improvements in the connectivity of systems and in computing power and cost, which have resulted in large volumes of newly created and usable data.

These improvements have alleviated transaction costs and given rise to new business models and new entrants.





DiFi - Road to Disintermediation

Using **smart contracts** and **algorithms** without the need for a trusted intermediary. Financial services with the following characteristics:

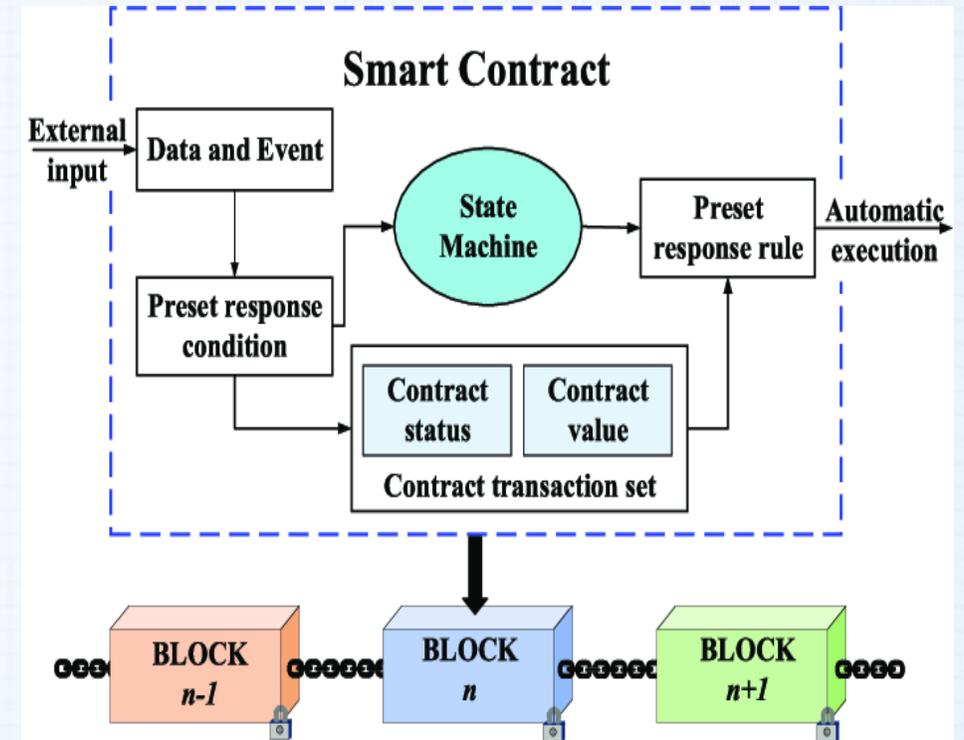
1. Delivered over distributed ledger technology
2. Using decentralised asset
3. Without the direct involvement of an intermediary
4. Through the use of direct-to-user applications and interfaces



Delivered over distributed ledger technology

Digitised products and services take the form of software and protocols which sit on top of the decentralised foundations of blockchain technology, and rely heavily on the implementation of **blockchain-based smart contracts and algorithms.**

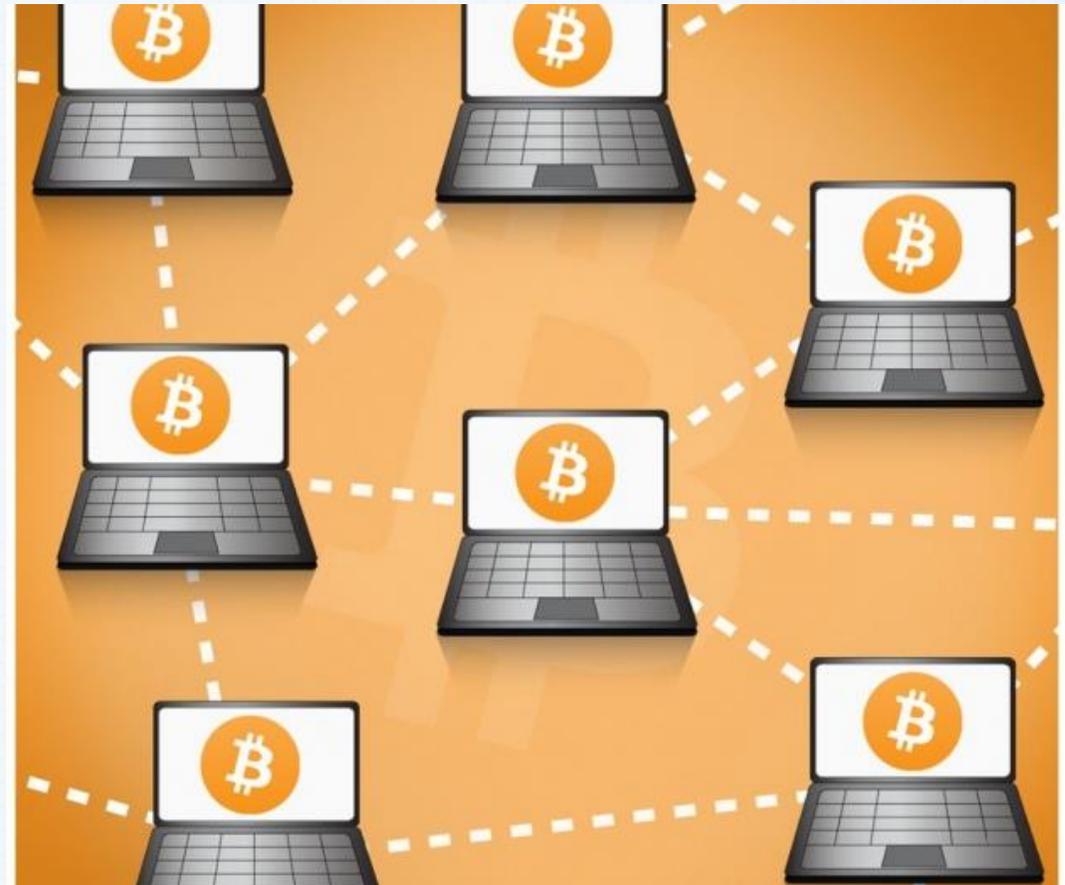
Smart contracts are simply programs stored on a blockchain that run when predetermined conditions are met. They typically are used to automate the execution of an agreement so that all participants can be immediately certain of the outcome, without any intermediary's involvement or time loss.



Using decentralised assets

Digitised technology provides users of cryptoassets and tokenised assets with new ways to create, manage and transact in those assets as well as traditional securities, with the digitised protocols prompting settlement according to the usual processes.

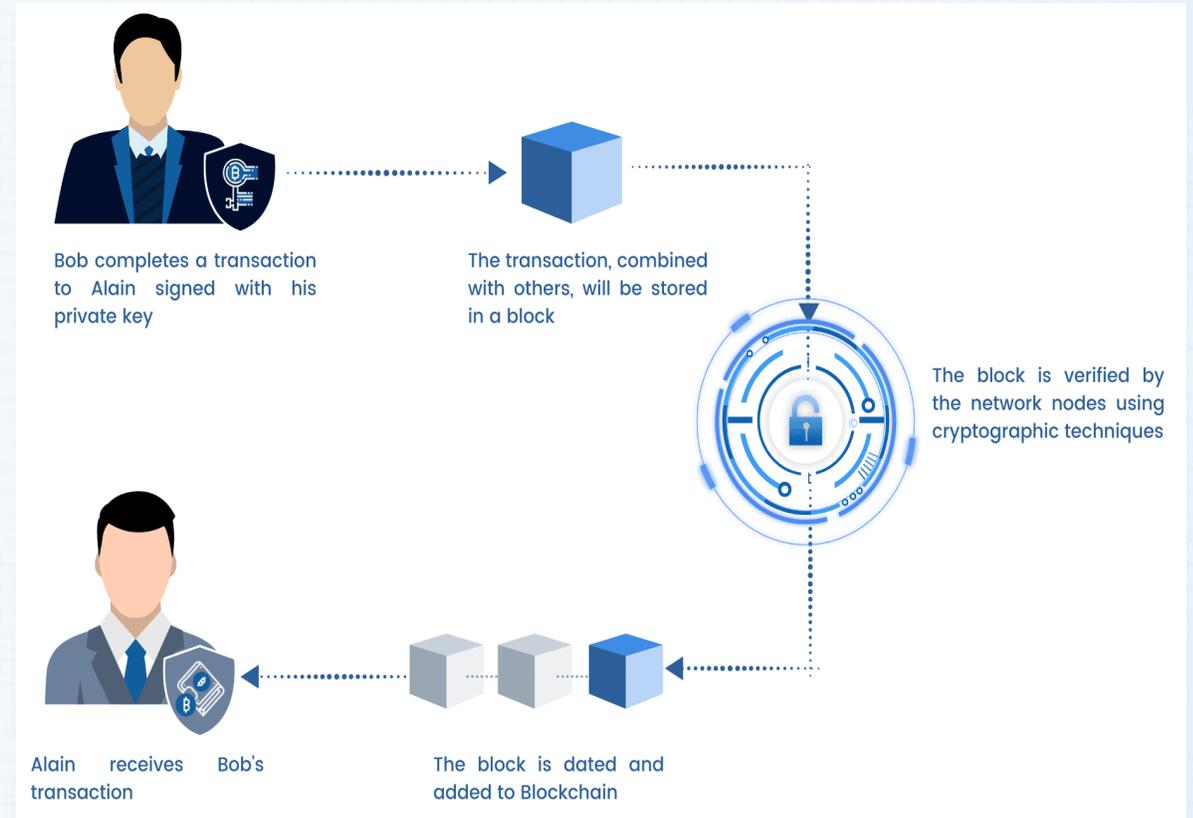
- For example over the Ethereum blockchain for Ethereum-based assets and tokens.



No need for an intermediary

Without the direct involvement of an intermediary that is a natural or legal person.

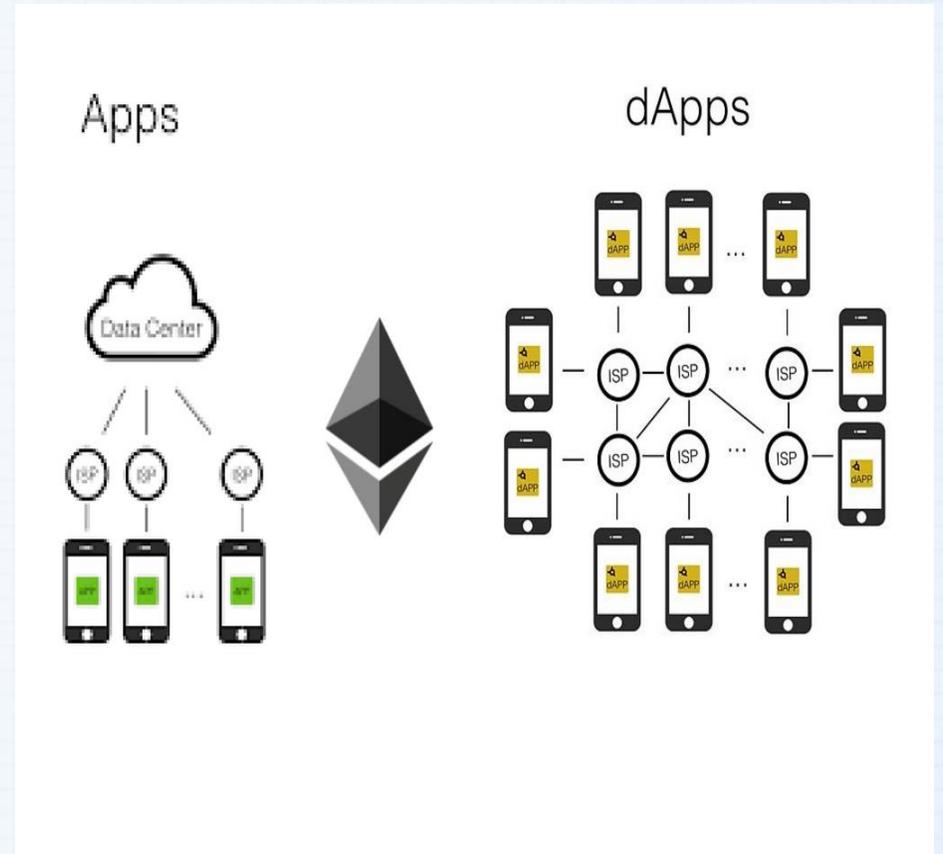
Digitised services don't require any third party intermediary to take custody or control of user assets or funds, as all transactions are executed and recorded through smart contracts and algorithms according to the digitised protocol's predetermined rules.



Direct to user interfaces

Through the use of direct-to-user applications and interfaces – Digitised services are made available to users directly through decentralised web applications (**dApps**) and wallets.

These dApps and wallets may be created and managed by a traditional controlling entity (eg a natural or legal person), a community or a decentralised autonomous organization (DAO) although these controlling entities would typically define the terms of the protocols that apply, rather than defining the terms of any particular transaction using those protocols.



Final Remarks & Questions

