Capgemini

TECHNO VISION Change Making 2021
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New Chain **on the Block**

Using distributed ledger technology to drive next generation trusted business ecosystems

Excellent connections create excellent results. What if being connected and carrying out transactions in an ultra-safe, transparent, and effortless way comes to you as a fluent platform capability? Well, there's a new kid in town that seems determined to stay - even if its street-credibility is being questioned every now and then. No longer a new term, blockchain underpins next-generation ecosystem platforms that act as public ledgers for open, collaborative transactions and 'smart' contracts. It provides trustworthy connection capabilities that speed up transactions, to go direct, and provide full transparency, while ensuring data integrity, privacy, and security. It seems we're in the middle of a chain reaction!

Muhammed Ahmed
Expert in Residence

WHAT

- Each transaction on a peer-to-peer network is recorded as a 'block', with each block chained to the previous, which is immutably recorded using cryptographic trust and assurance mechanisms.
- 'Smart Contracts' are self-executing programs based on predefined conditions without relying on a trusted authority to increase transparency, efficiency and accountability.
- 'Tokenization' creates a fundamental shift in the trading of assets. Blockchain and tokens can make the trading process efficient and reliable, increasing the volume of trade and opening the possibility of trading more illiquid assets.
- There has been a rapid rise in industry and domain-led partnerships through consortia and acquisitions underpinning the idea of ecosystem collaboration to achieve business outcomes.

USE

- Many central banks are aggressively exploring blockchain to digitize currencies through Central Bank Digital Currency (CBDC) bringing the benefits of cryptocurrency to the traditional banking system.
- 3 major banks in Australia are using blockchain to digitize bank guarantees to reduce the time, cost and risk involved in the current paper-based process. Banks can issue bank guarantees in just one day which could otherwise take several weeks.
- Blockchain has found extensive applications in the supply chain with large scale implementations (e.g. TradeLens, Food Trust) aimed at assuring product quality and integrity as it moves from producer to the consumer. It can improve supply chain efficiencies ensuring safe, transparent and efficient distribution of products ranging from coffee to COVID vaccine.
- Decentralized energy trading marketplace uses a blockchain-based platform to trace energy origin and allows prosumers to sell excess electricity to achieve carbon neutrality.
- The Blue Catalyst initiative demonstrated the great potential for blockchain, carrying out transactions around Know Your Customer (KYC) and Know Your Supplier (KYS).

IMPACT

- Redefines the identity management process by offering a secure and trustless means to establish identities in KYC-applications, health data sharing, etc.
- Smart Contracts improve process efficiency and improve transparency by executing trusted, verifiable and tamper-proof transactions without the need for intermediaries.
- Central Bank Digital Currency (CBDC) can digitize currency leading to cashless transactions that are quick, efficient, secure and convenient.
- Blockchain's added value can be seen in how the technology integrates with other breakthrough technology drivers such as AI and IoT, such as UNICEF for tracking vaccines.

TECH

- Blockchain Platforms: Hyperledger, Ethereum, Corda, IBM Blockchain Platform, ConsenSys, arcblock.io, stellar
- Business-focused consortia: R3 (banking), B3i(insurance), CBSG (telco), MOBI (auto)
- Technology-focused consortia: Hyperledger, Enterprise Ethereum Alliance

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