
The New Business Models (and Jobs) in Blockchain



By Andrew Shipilov , INSEAD Professor of Strategy

From finance to smart cities, distributed ledger technology is beginning to deliver on its vaunted potential in several key sectors.

Given the Bitcoin price craze in the face of the morose economy during the Covid-19 pandemic, one may assume that the distributed ledger technology (DLT)/blockchain bubble is ready to burst once again. However, new developments justify paying close attention to this sector. There are now new use cases leveraging DLT, with some companies starting to figure out how to build viable business models. The space also has interesting career opportunities for people of various backgrounds. I learned all of this from a recent conversation with Wilfried Pimenta de Miranda of IOTA, Sean Kiernan of DAG Global and Daniel Cotti of TradeIX. We discussed the launch of an INSEAD case study, “[IOTA Foundation: Building a Minimal Viable Ecosystem for Smart Cities](#)” at a recent [INTHECASE talk](#) organized by digital@INSEAD.

IOTA ecosystem and career opportunities

The idea behind IOTA, launched in 2015, is to create an open-source public DLT fit for the IoT economy. Tomorrow's digital economy will run on automated, distributed cyber/physical systems. New approaches to data management and sharing between citizens, organisations and IoT assets or machines must be designed around novel digital trust frameworks and a new type of e-infrastructure. IOTA wants to be for IoT what TCP/IP has become for the web. The vision is a machine economy where IoT assets, e.g. autonomous vehicles, participate in creating and exchanging value through machine-to-machine transactions.

Minimal usage fees and a low-energy consumption for running the overall decentralised network are needed to allow frictionless data sharing and the emergence of new data-driven business models such as “**everything-as-a-service**”. While conventional public blockchain protocols introduce fees associated with miners' node operations and lead to controversial energy consumption, IOTA removes the need for miners and their operational friction altogether.

Wilfried told us that IOTA fosters a broad collaborative ecosystem comprising developers, research, academia and enterprises from both public and private sectors. For example, STMicroelectronics is embedding IOTA in its IoT stack, while Dell Technologies (in cooperation with the Linux Foundation) is developing a Data Confidence Fabric to ensure transparency and digital trust in cross-silo data sharing. Meanwhile Jaguar Land Rover is leveraging IOTA to develop a car wallet technology.

Progress towards peer-to-peer energy trading is also being made through the **Horizon 2020 Positive CityxChange** consortium out of which Wilfried is spinning off and incubating a new venture through Alpha Venturi. This is an IoT/DLT innovation and venture studio based in Oslo.

Those collaborative initiatives illustrate IOTA's potential to reshape industries as well as public e-infrastructure. While career opportunities at IOTA currently concentrate on core research and development engineering, its startup and enterprise ecosystem will surely welcome a growing number of technical and business minds capable of innovating beyond the silos of organisations and conventional business models.

DLT as finance game-changer?

DAG Global represents a new generation of digital merchant banks. Since its incorporation in 2018, it has been setting up the infrastructure for taking fiat deposits from cryptoasset companies and in turn making loans to small- and medium-sized businesses. It is now progressing to a full UK banking licence application with the PRA and FCA.

In addition to its planned fiat-based banking activities, DAG Global envisages managing crypto-backed banking as within traditional banking frameworks. If a business wants to borrow money, it can pledge cryptoassets as collateral; if a business wants to earn interest on its cryptoassets, it can deposit them in the bank.

Clearly interesting challenges come with accepting deposits or issuing loans via financial instruments whose value exhibits very high volatility. But Sean Kiernan is confident that this new business model will have a lot of customers in the future as evidenced by the take-up of such loans on other non-banking platforms. For the time being, DAG Global is looking for traditional bankers with an affinity for emerging technologies as well as an interest in reviving the merchant banking business model for deep client engagement.

TradeIX is a founder of the Marco Polo Network, which is a fast-growing distributed trade and working capital finance system. Based on Corda's enterprise-grade DLT protocol, the network allows companies to manage trade finance transactions connected to their ERP platform using their own interfaces. It also allows participating companies to store trade data on the blockchain, enriched with automated contract enforcement, identity management, asset verification and tracking.

The network already has over 35 leading banking partners such as ING, DBS Bank and Bank of America. It works with a number of corporate partners including Accenture and Pole Star, as well as tech suppliers such as R3 and Microsoft.

While in its most generic form, blockchain allows all members of the network to see each other's transactions, Marco Polo's Corda implementation enables users to restrict who gets to see transaction data, making it ideally suited for trade finance information exchange. The Marco Polo Network currently seeks candidates with backgrounds in trade and working capital finance and with SaaS technical solution and deployment experience. Of course, it is also open for new network partners and companies looking to improve their

working capital performance.

DLT is starting to deliver

This seminar shows that new business models have developed in the DLT ecosystem. Some players – like IOTA – provide technological infrastructure that machines can use in the near future to power smart cities. Others – like DAG Global or TradeIX – unbundle the traditional banking business (merchant banking and trade finance respectively) and take it into the DLT space.

This technology is slowly ceasing to be a hammer looking for the proverbial nail. It is beginning to fulfil at least some of the promise that it had several years ago at the start of the DLT/blockchain/crypto adoption cycle. While these projects are overshadowed by the speculation around Bitcoin, they could represent both significant innovation opportunities and new business models that are not tied to the price of Satoshi Nakamoto's creation.

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