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The popular conversation about blockchain reminds me of how augmented reality (AR) usually gets discussed in the news. The conversation often focuses on narrowly defined but easy-to-grasp examples, such as Pokemon GO for AR and bitcoin for blockchain. The limited scope is understandable, but it tells only part of the story. As with AR, there is more to blockchain than bitcoin and Facebook Libra. Blockchain is rapidly evolving to deliver value to enterprises now.

What is Blockchain?

Think of blockchain as a ledger that allows data to be distributed but not copied. Blockchain holds promise for creating accountability, transparency, and trust to complex digital transactions. It's especially applicable when multiple parties in a transaction do not know each other, a reality especially as businesses in multiple countries rely on financial intermediaries to buy and sells goods and services. Blockchain makes it possible for them to trust the system instead of the parties involved. I have often thought that *distributed ledger technology* would be a far more descriptive and accurate term for blockchain. But the term blockchain seems to be here to stay.

A number of businesses are using blockchain to improve the way they operate. Let's look at a few.

Walmart Improves the Food Supply Chain

Walmart is adopting blockchain technology to track the complete journey that food products take from suppliers to Walmart retail shelves. Better traceability helps the company spot the source of problems

in its supply chain and resolve them more quickly – including the source of food-borne diseases. When a serious problem occurs, such as contaminated food from a farm working its way into the supply chain, blockchain can help Walmart rapidly pinpointing the source of a problem without disrupting the entire supply chain.

Walmart created a food traceability system based on Hyperledger Fabric, a type of blockchain ledger. Walmart can trace the origin of more than 25 products from five different suppliers. Already with a mango supplier, Walmart has cut down the time required to trace the provenance of mangoes seven days to 2.2 seconds. There is much more to come. Walmart has announced that it will start requiring all of its suppliers of fresh leafy greens (such as salad) to use the system to trace their products.

In addition, number of businesses are using blockchain to reduce the costs and improve efficiencies in the way businesses manage money transfers, a process that is fraught with costs associated with fees and differing exchange rates. These examples follow here:

Veem Manages Money Transfers

As discussed in CNBC, Veem is a money-transfer business that intends to to simplify cross-border wire transfers and payments among vendors and contractors. Veem uses blockchain as one of three ways to facilitate money transfers, including the use of traditional banking SWIFT codes (the latter of which can be a time-consuming process). According to CNBC, blockchain transactions happen in seconds and reduce the effort required for multiple parties to complete paperwork at a bank. Blockchain-based transactions account for 62 percent of Veem's total transactions managed.

An International Commercial Bank Facilitates Letters of Credit

Centific helped an international commercial bank implement blockchain to manage letters of credit among multiple international parties.

A letter of credit is common within international trade and goods delivery, where the reliability of contracting parties cannot be readily and easily determined. Its economic effect is to introduce a bank as underwriting the credit risk of the buyer paying the seller for goods. For example, seller of goods and services in the United States might need a bank to present a letter of credit to a buyer in Japan in order to verify that the seller is trustworthy. A letter of credit is like a guarantee, with an intermediary sharing some risk.

But it can take weeks and even months sometime months to complete one single letter-of-credit transaction with many parties in the middle involved – including the seller, buyer, bank, logistics carrier, and government bodies.

Centific collaborated with our client to incorporate blockchain into its letter-of-credit process. The same number of intermediaries are required, but they now may use a distributed ledger to manage immutable records with transparency. Working with the bank, we:

- Built a new letter-of-credit transaction platform and included an application layer to integrate the platform with the bank's existing system.
- Built an external application program interface for direct access to the data stored in blockchain.
- Implemented a smart contract rules and payment.

As a result, our client has dramatically cut down on the processing time needed to manage the process of securing a letter of credit.

A Global Bank Manages Interbank Exchanges

Our client, a global bank, needs to transfer funds among other banks to facilitate transactions between its customers and parties who do business with other banks. The options for doing so can require a complicated journey among intermediaries using methods such as the SWIFT code (as with Veem). The bureaucracy can be especially burdensome on smaller banks.

For our client, we implemented a blockchain system that makes it as easy to transfer money outside its branches as within them. Parties involved in a transaction can easily manage money transfers regardless of currencies involved. As with the international bank managing letters of credit, our role spanned building a platform and developing associated software required to integrate blockchain properly with the bank's legacy systems. As a result, the process is managed faster and more efficiently.

Where Is Blockchain Going?

In 2020, I think it is safe to say that bitcoin will continue to dominate the discussion of blockchain, for better or worse. Just Google "blockchain prediction," and you can get a sense of where the discussion is focused at the time of this writing. The top six search results all have something to do with Bitcoin prediction.

But blockchain will continue to make inroads quietly amid multiple industries. When you dig beyond the news, already you see examples of businesses that continue to implement blockchain. For example, the Responsible Sourcing Blockchain Network (RSBN), an international consortium built on Hyperledger Fabric, said it had successfully completed a pilot project to protect against exploitative cobalt mining practices. As reported in CoinDesk, member companies sent 1.5 tons of Congolese cobalt across three different continents, clearing the way for the project to move forward in 2020. Member companies include Ford, LG, Volkswagon, and Volvo.

The work of the RSBN is one example of how blockchain is helping businesses be more responsive to consumers who want businesses to place purpose alongside profit in their operations. Another

example is Everledger, which makes the sourcing and delivery of diamonds more transparent for consumers who want assurance that their products are being sourced in a sustainable fashion. Truly, we are just beginning to realize the potential of blockchain.

Contact Centific

Centific provides myriad services to help businesses deliver measurable value with blockchain. Our work spans brand and business innovation consulting; blockchain implementation, deployment, and operation; and cloud and security services. Contact us to make blockchain succeed for you.

About the author:

Yong Liang is Associate Vice President and Product Lead for AI related solutions at Centific. He works on several up and coming AI technologies that support enterprise business.

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