

Blockchain and Emerging Technologies Can Change the World

Social media, cell phones and touch screen portable tablets were once a fantasy. They couldn't have been imagined in anyone's wildest dreams 100 years ago, yet here they are staring us in the face 24/7/365. Technology and innovation has caught up with the 21st century and not just in our daily, personal lives. Businesses and financial institutions have started to test and implement certain technologies that do exactly what Twitter and Apple have done for consumers—improve convenience and efficiency, among other key factors. Blockchain is one of the products that is gaining steam and making its way from infancy in the lab to application in the field.

This distributed ledger technology (DLT) creates an innovative, digital footprint. "It is a public record in the digital space that documents change of ownership, or title, to a specific asset," said Luis Noriega, ICCE, senior vice president with Wells Fargo. Noriega likened it to the provenance of a painting, showing the history of title to an asset over time. Wells Fargo was involved with the first-ever cross-border trade-related blockchain transaction between banks after a shipment of cotton left the U.S. for China last year—proving this technology is just starting to be put in place.

"Financial institutions have set up innovation labs to investigate technology. They want to be on the forefront of it and not get left behind," said Noriega. The challenge to this is not being last in the race. Noriega believes there is a future for blockchain in the credit industry. Originally, paper bills of lading in trade would take two to five days to be delivered; now they are instant if blockchain is involved.

"Although letters of credit and bills of lading may now be in electronic form, they are still not easily accessible to all parties to a trade, and each party keeps independent records of transactions," said a blog article from American Express on blockchain's use in trade finance. "Tracking the progress of shipments and relating them to payments remains complex, cumbersome and open to error and fraud," the article explained. Blockchain can help alleviate this issue, as it could reduce documentation delays and improve access to credit, among other advantages.

Blockchain is starting to be used in goods transactions under letters of credit. The decentralized ledger can help keep track of the conditions of the sale as well determine who has ownership of the goods at any point along the transaction. Combined with Internet of Things, digital contracting and other emerging technologies, several parties with a vested interest in the transaction (including freight and logistics partners, insurance carriers, customs and other regulatory bodies) can gain visibility and add value during the transaction, explained Noriega. If change of title is instant, a predicament becomes easier to adjust to.

"The major (potential) benefit of blockchain/DLT," according to Finastra Head of Trade David Hennah, "is the immutability of data. The fact that everyone sees the same data at the same time theoretically makes it less likely to be hacked. Blockchain enables you to share data. DLT enables you to share control of the data. All DLTs are blockchains, but not all blockchains are DLTs."

Blockchain can lend itself for any asset that carries title, starting with liquid instruments, but ending, potentially, even with real estate recordkeeping. Blockchain is also used as a record for securities. "Blockchain can potentially improve the speed and security of international payments and reduce their cost, benefiting businesses and consumers in many countries," according to the American Express article. Its greatest headway initially was to replace back office paper transactions, said Noriega. The No. 1 advantage of blockchain, according to Noriega, is its reduction in cost to transact between parties. It

reduces cost and time, so it would seem to make sense for implementation. Trade creditors and material suppliers on construction projects could use blockchain as a title transfer channel and a way to show proof of delivery.

“The important thing to recognize is that technology is accelerating quickly,” said Noriega. Technology should be treated strategically, he added. Currently the innovative technology is ahead of the regulations that are in place to assist in eliminating the disadvantages of blockchain such as currency going outside the system in offshore gambling and illegal arms dealing, said Noriega. The use of blockchain ultimately depends on whether it can win out against others in the testing phase or in current use. Look what happened to Betamax when it went head-to-head with VHS or when VHS lost the battle to DVDs, and now DVDs have lost out to cloud-based streaming, Noriega noted.

Over the next five years, we will see the winning technology adopted rapidly, but it takes about 20 years to fully implement it into normal day-to-day operations globally. PCs began growing in households in the 1980s, and over the next 20 years were in every home and now every pocket, said Noriega. Technology adoption happens exponentially fast, but it ultimately boils down to what will increase efficiency, convenience and security, and lower costs.