

The 3 traps when it comes to blockchain and business - and how to avoid them

Blockchain was first introduced in 2009 with the launch of its first application, Bitcoin. In its simplest form, blockchain is a decentralized digital system of record in which untrusted parties can share a digital history and reach consensus without an intermediary. It is comprised of a time-stamped series of immutable records of data that is managed by a cluster of computers that are not owned by any single entity. Each of these blocks of data is secured and bound to one another using cryptography. Each block contains a [cryptographic hash](#) of the previous block, a [timestamp](#) and transaction data. By design, a blockchain is resistant to modification of the data.

During myriad conversations with global chief experience officers (CXOs), I realized that many of them are not fully confident in their understanding of blockchain. Here are a few of the most common misbeliefs and traps that decision-makers need to disregard when considering blockchain for their respective businesses:

1) “Blockchain is all about cryptocurrencies, particularly Bitcoin or Ether. We cannot internalize cryptocurrencies in our businesses”

This common belief is incorrect. Blockchain has several versions – public and private - the most known examples are Bitcoin and Ethereum networks where everyone (nodes) has equal rights to transaction creation and validation, data access and producing new blocks.

Cryptocurrencies rely on the “public permissionless” version. There are other versions like “public permissioned” where anyone who meets certain predefined criteria can download the protocol and validate the transactions, and parties joining the blockchain network will need prior permission.

“Private permissioned” may be most relevant for enterprise applications with respect to privacy. Every node or participant in a blockchain network is pre-selected and validated. These are usually implemented in a consortium model and used for situations that require collaboration between businesses. There are no cryptocurrencies; mining is irrelevant here.

For example, an enterprise could set up its own blockchain network to accomplish network effects and obtain business collaboration between its suppliers, partners and customers for procurement and delivery of goods. Suppliers and partners belonging to another enterprise could not join this private chain.

2) “Blockchain is emerging tech, it's cool. Let us implement it for tech's sake”

Some companies approach blockchain purely because of their fascination with technology. This is a recipe for failure. Blockchain implementations should be led by business outcomes. The tech led fixation has been fed by the software and platform industries releasing ever more advanced

versions with emphasis placed on the technical features. Blockchain implementations, both public and private, however, are and will be successful when they are implemented to:

1. Provide a new experience to end customers;
2. Meet unfulfilled or under-served needs;
3. Accomplish complete or partial disintermediation;
4. Reduce mistrust by digitizing trust and preserving the provenance of an activity or material.

These four attributes can address millions of problems that today exist in any form of interaction – B2B, B2C, P2P, machine-to-peer or machine-to-machine

There is a tendency to dismiss private blockchain as a flat file or database that is nothing but old technology. Public blockchain also uses established components like C++ (for Bitcoin, invented in 1985), asymmetric encryption (invented in 1976), Proof of Work (invented in 1993) and SHA 256 (invented in 2001). When these different technologies came together they ended up solving the double-counting problem in money applications, which computer scientists had struggled to solve since the early 1980s, through the invention of Bitcoin in 2008.

Indeed, at this stage, private blockchain should be used to solve tough business problems mainly when other technologies fail or are sub-optimal. Otherwise, blockchain initiatives will fail and discourage people from using or exploring them.

3) “To use blockchain, an industry-wide consortium is required. Someone else needs to start the chain and we will join it.”

There is a widespread misconception that for blockchain to be useful, everyone in an industry needs to be a part of it. Enterprises think that since it’s a consortium someone else needs to take a lead, start the chain and establish a code of practice for its effective function, and that once these are accomplished, they can join the consortium. This is incorrect.

Based on our experience of implementing blockchain for several industries globally, enterprises can benefit significantly through private blockchain by starting their own chain. The approach here is DIY rather than DIFM (“Do it for me”) and could be considered a private chain or micro-chain. These are very effective in addressing gaps in trust, which can increase when there is an interplay between companies, suppliers, partners and customers to accomplish common objectives and goals. The value of such a chain to a company increases even further when the interaction involves a combination of legacy and non-legacy systems leading to different information islands or silos that don’t talk to each other. Hence companies spend a lot of time and effort on data or information reconciliation that can be saved through implementing blockchain. As such, these own chains can deliver tremendous collaborative benefits and achieve positive network effects.

We have deployed these chains in various enterprises to solve business problems such as:

- Reducing purchase order failures even after they are run on Electronic Data Interchange (EDI);
- Improving the expected time of arrival for customer orders that involve collaboration between various enterprise teams, order-fulfilment partners, warehousing partners and others;
- Tracking the movement of high-precision tools and the sharing of such tools between the original equipment manufacturer and its innumerable suppliers;
- Managing forward and reverse logistics of non-serialized inventory involving several stakeholders;
- Safeguarding personally identifiable information and its exchange in a system that involves several players and preventing incorrect monetization of such information.

In essence, the opportunity for enterprises to build and use their own chains to drive transformation, whether pertaining to processes or digital operations, is now.