# Blockchain: Finding the Value Proposition

**Open-sourced collaborative projects like Hyperledger are helping companies find the value of blockchain technology.**

The hype around Bitcoin may be subsiding, but the evolution of the underlying blockchain continues to generate excitement as one of the most important and disruptive technological innovations since the internet.

Like most game-changing technologies, blockchain has come up against scepticism. Its complexity and the limitations of its current real-world applications have made it difficult for industry to understand its value proposition.

Nevertheless, the technology's development has continued unabated and the confidence that corporations have in its potential to revolutionise industry – from smart contracts to solving supply chain and digital ID challenges – is reflected in the significant investments it attracts. Venture-capital funding for blockchain start-ups **exceeded US$820 million** in the first half of 2019, while a Deloitte Insights **survey** of 1,386 executives in a dozen countries found that 50 percent of organisations planned to invest between $1–10 million in blockchain projects this year. IBM, a leader in the field, spends around **US$160 million** each year on blockchain initiatives.

Today, the momentum has shifted from building proofs-of-concepts to open source projects that are rolling out fully developed pilot solutions contributing to the field overall traction and growth.

**Diverse initiatives**

Blockchain is best described as an online ledger made up of blocks of information linked using cryptography. Once information goes into a block, it is virtually impossible to alter it without the original password or key. This provides an immutable and shared record of transactions, creating trust between parties without the need for an intermediary. By providing a decentralised, peer-to-peer network of information, blockchain is reliable, transparent and secure. It has the potential to reshape business models, as well as change the way organisations are funded, managed and how they create value.

Organisations in sectors from fintech to health, pharmaceuticals, telecommunications and government are collaborating and exploring diverse ways to leverage the technology.

Chinese e-commerce giant Alibaba and Philippines-based payment service GCash have used blockchain technology as the basis for a **cross-border remittance service**. The Dutch start-up GUTS is challenging centralised ticket companies by using blockchain to **sell tickets** in a way that addresses scalping and fraud. The UK's Prudential

has collaborated with Singapore telecom firm StarHub to launch a blockchain-based **trade platform** for small- and medium-sized businesses. MetLife has partnered with IBM and insurance tech company Majesco to build a blockchain platform for **insurance**, while Medicalchain is relying on blockchain technology to facilitate the storage and utilisation of **electronic health records**. Elsewhere, Tencent Holdings is working with the Shenzhen State Taxation Bureau to use blockchain technology to **fight tax fraud**, and Gem is helping the US Centers for Disease Control and Prevention experiment with blockchain to **monitor infectious diseases**.

The list goes on. In fact, most midsize or larger companies these days are exploring the potential of blockchain.

**Hyperledger: Pushing the envelope of blockchain technology**

"Blockchain is not magic pixie dust that improves every project. There are a lot of projects where it wouldn't be appropriate, people are still learning, testing the landscape and different solutions to see what works," says Brian Behlendorf, Executive Director of Hyperledger, an umbrella project of open source blockchains hosted by the Linux Foundation. We spoke to Behlendorf on the sidelines of the 2019 **Blockchain Revolution Global** (BRG) conference in Toronto.

As a coalition of over 250 large corporations and thousands of developers, Hyperledger is supporting the collaborative development of software to expand the possibilities of blockchain technology. The aim, according to Behlendorf, is not necessarily to find the fastest way to implement blockchain technology. It is about bringing developers and corporations together on projects so technology is created to address real problems. Its members include companies that are starting to deploy the technology, such as IBM, Daimler, Airbus and Samsung, working alongside independent developers and start-ups from across the globe. About 20 percent of the membership is from mainland China where President Xi Jinping has urged corporations to step up their application of blockchain technology.

"We make sure that the technology, as it's getting built, accrues to the benefit of everybody, and not just to the developers who wrote it, and that it's a public resource," says Behlendorf. "The Hyperledger community is building code that we hope permeates throughout the entirety of the blockchain industry."

Hyperledger also works with governments to help them understand the role blockchain can play in regulation, ID and public policy. It can assist them in updating relevant regulations as well.

"A lot of work still has to be done on regulation and governance and creating protocols that make it more efficient," says Behlendorf.

There is also the issue of interoperability. When numerous platforms and protocols are developed to solve a similar problem, they need to be able to "speak" to each other.

The question as blockchain matures is, will it end up looking like the internet where unified standards allow something big to be built, or will it end up like a Tower of Babel, with hundreds of different options and dozens of major languages – making communication and collaboration difficult.

**Finding the value proposition**

If blockchain is to move forward, it will also have to overcome institutional resistance and scepticism. Senior executives will have to understand how blockchain fits into their organisation.

"It's not a matter of them understanding how crypto or blockchain works but how it can be applied and what it does well," Jon Trask, founder and CEO of consultancy firm Blockchain Guru said at the BRG conference.

Much of the excitement around blockchain is tempered somewhat by the recognition that current applications of blockchain can be achieved just as easily (and perhaps more cheaply) with a centralised system. If blockchain is to live up to its hype, the new technology has to provide everything the older technology provided and more.

When working on new applications, developers and firms should look for the compelling value proposition. And keep an open mind.

"To really understand what the trends are that this technology can address, the thinking shouldn't be 'what does this technology displace?' It's really about 'how does this change our future business?'" noted BRG presenter David Jaffray, Executive Vice President of Technology and Innovation at the University Health Network (UHN).

Soumak Chatterjee, a partner at Deloitte Canada, notes that the first principle for organisations should be understanding how they can do what they do today better, faster, cheaper or in a more beautiful way. "When thinking about blockchain, go back to what you are actually trying to achieve, the outcome or experience you are trying to deliver for your customers, and start from there," he says.

"Don't start with blockchain – that's not the point.

Start with what you are trying to invent and think whether there's a role of decentralisation in that experience. Could it be done in a different way, and what does that mean in terms of change of the business function."

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