

Blockchain 101

Smart contracts, business disruption or just another tech industry hobby horse?

A white paper

By OneLaw and CommArc CEO Phil Johnson



Blockchain seems to be the latest tech “disruptor” everyone is talking about, but what could it mean for your firm?



As the CEO of two national tech companies, I have an active interest in tech sector developments and that includes innovation with blockchain. I have done a lot of research on how this could affect the law industry, and would like to share some of my findings and thoughts with you. - Phil

Blockchain is claimed to be potentially the largest business disrupter and opportunity platform of the modern age. Well – maybe, maybe not.

Please excuse me if there appears to be a slight whiff of cynicism here, but the tech industry does have a history of touting “the next best thing” long before we think we need it.

Let’s talk about the technology, how it works and how it may affect our lives.

So, what is blockchain?

Blockchain is the technology behind Bitcoin (and other digital currencies), a type of encrypted and globally distributed digital ledger. Blockchain is not a strictly financial tool. Although it is designed as a general ledger, in its simplest sense, it’s a way to move and store blocks of cryptographically validated data that users can’t corrupt. This means it creates a transparent paper trail that anyone can access, but no one can alter. It has no central point of failure, making it more secure than most banks, and many governments. This makes blockchain far more than just a financial tool, it makes it the latest way of sharing, validating, or otherwise endorsing almost any kind of transaction process. It could be a gamechanger.



Who owns it?

A blockchain service or community can be owned by a government, a corporation or a collective, but the technology behind it is open source, and is not generally owned or controlled by anyone. For example, bitcoin is owned by the bitcoin community, and its security is provided by miners – thousands of computers globally who all compete with each other to solve a cryptographic puzzle that seals a “block” of data together.



How can we use it?

It's probably more of a question of how blockchain can't be used. The concept of a highly secure, transparent, stable, distributed transaction validation system is a bit of a “holy grail”, and it doesn't matter what industry you are in. Finance, banking, law, music, art, intellectual property, food manufacture, medical and even e-government are all valid platforms for this technology.

What aren't they telling us?

Blockchain is an open standard and this means that anyone can access and develop this technology. There are a number of reasons to be sceptical about it, in particular:

1. It's potentially a problem looking for a solution – and we've seen a few of these recently
2. It requires massive energy and compute power to be able to validate transactions across multiple computing platforms
3. The concept of “immutability” – not being able to modify data – may render it unsuitable for many of the uses it is being considered for
4. It is potentially a very expensive way to solve a problem that may not exist yet



What about “smart” contracts?

A smart contract has the ability to self-monitor, self-report, and in some cases self-execute based on a set of contract conditions that have been agreed (and programmed) in advance. In effect a smart contract could potentially highlight when one party is likely to breach their conditions in advance (assuming it was monitoring these elements). We believe that there are a huge number of potential advantages to smart contracts, but it is worth noting that this technology is not exclusive to blockchain.



Where does blockchain sit with OneLaw?

OneLaw is in the early stages of developing OneConnect, a set of API's (application programming interfaces) that will permit the OneLaw framework to facilitate communication with other open systems. There are many candidates for OneConnect, and at this stage we don't believe there is anything in the blockchain community that is a strong candidate. However, we are monitoring this technology, and in order to support our customers we will quickly respond to a shifting market.

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