

Understanding Blockchain: How It Will Change the Practice of Law

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Introduction

Several years ago, a Canadian attorney and good friend of ours, invested \$10,000 in bitcoin. Clearly, he is a lot smarter than us. We can't even imagine the extent of his profit – the price of bitcoin has been all over the map. It hit an all-time high of \$19,343.04 on December 16, 2017. We're not sure if our friend cashed out, but we suspect he is still holding on to his "stash" of bitcoins. As of May 6, 2018, one bitcoin is worth \$9,901. That's quite a drop in less than six months.

We became aware of bitcoin wallets a few years ago, as husbands (mostly) began to hide assets from their soon-to-be ex-wives in those wallets. And then came a barrage of ransomware attacks. Law firm after law firm was paying the ransom (\$300-\$500 in the early days and \$1500-\$3000 today). The cybercriminals usually want the ransom in bitcoin. To our amazement, there are now bitcoin ATMs available in local gas stations and laundromats complete with posted instructions on creating a bitcoin wallet for the Bitcoin novice.

In July of last year, there were reports of a Citrix UK study which found that a third of UK companies were stockpiling digital currency, mostly in bitcoins, to pay the ransom (an average of approximately \$176,000) if they became victims of a ransomware attack.

At the 2017 ILTACON conference, artificial intelligence wasn't quite kicked to the curb, but the buzz around blockchain became very loud indeed. In the last several months, it has become increasingly clear that blockchain is a transformative technology that is going to make substantial changes in the practice of law.

What is blockchain?

There are arguments about the definition but we liked this one from TechTarget:

"Blockchain is a type of distributed ledger for maintaining a permanent and tamper-proof record of transactional data. A blockchain functions as a decentralized database that is managed by computers belonging to a peer-to-peer (P2P) network. Each of the computers in the distributed network maintains a copy of the ledger to prevent a single point of failure (SPOF) and all copies are updated and validated simultaneously.

In the past, blockchains were commonly associated with digital currencies, and Bitcoin in particular. Today, blockchain applications are being explored in many industries as a

secure and cost-effective way to create and manage a distributed database and maintain records for digital transactions of all types."

The second paragraph of that definition is particularly interesting because law firms are now "getting" the possibility of blockchain. While it was first utilized by Coinbase when bitcoins were introduced in 2009, we now realize that the same technology can be used for contracts, real estate transactions, bank and stock market transactions – and the list goes on and on. Many people believe that blockchain is synonymous with Bitcoin, which couldn't be further from reality. Blockchain is the underlying technology that cryptocurrencies use. To make it more confusing, there are no standards for blockchain. In other words, blockchain is unique to each service that is provisioned.

[Back to Bitcoin](#)

Why back to Bitcoin? Well, it has already taught us already a number of lessons. The cryptocurrency market is highly volatile. And as the number one cryptocurrency (Ethereum's ether is generally held to be second), Bitcoin is receiving unwelcome attention. As was reported in August 2017, the IRS is coming after those who are profiting from Bitcoin transactions (legally or illegally, they are all supposed to be reporting income) and those who have made monies by investing in bitcoin.

The gap between the number of people dealing in bitcoin and the number declaring income from it is wide – very, very wide. The IRS said in court documents that between 2013 and 2015, fewer than 900 people per year reported income on Form 8949, which is used to account for "a property description likely related to Bitcoin." That compares pathetically to the number of people using Coinbase – "the largest exchanger in the US of bitcoin into US dollars," according to the government – with 4.8 million users and 10.6 million wallets.

Since Coinbase is under heavy scrutiny, many criminals (and others) have left Bitcoin in favor of other virtual currencies like Zcash, which promises to "fully protect the privacy of transactions using zero-knowledge cryptography," or Monero, which says it offers "secure, private, untraceable currency."

Also in August, the SEC issued its most comprehensive public guidance to date on digital assets such as cryptocurrencies and tokens. Key points:

- Initial Coin Offerings (ICOs) are required to be registered with the SEC if the digital assets are securities offered or sold in the U.S.
- Digital assets can be evaluated for securities status using traditional securities law criteria
- Automated functions through smart contracts or other code remain subject to securities laws
- Companies dealing in digital assets should consider seeking counsel as to whether the digital assets are securities

- Companies dealing in digital currencies may need to register as broker-dealers, securities exchanges, or alternative trading systems
- Companies investing in digital assets and advising on investment may need to register as investment companies or investment advisers

The SEC did not conclude that all tokens and cryptocurrencies are securities, but confirmed how the SEC would evaluate cryptocurrencies. The SEC also noted that form should be disregarded for substance and that economic realities should be a key to the analysis. Thus, any party contemplating a future ICO that is available to investors located in the U.S. should analyze the extent to which the offered asset could be considered a security. This analysis should reach the business model underpinning the offered assets and not be limited to the white paper description of the offered digital assets.

Therefore, companies doing business with digital currencies with U.S. investors might be in violation of U.S. securities laws and may be required to register with the SEC and to comply with applicable securities regulations.

And hold your hat - according to Investing.com (<https://www.investing.com/crypto/currencies>), as of May 6, 2018 there are 1,794 cryptocurrencies in existence. Conventional banks would do well to be rattled by that. So far, the estimated \$388 billion value of the top 20 cryptocurrencies is still a tiny fraction – less than 8% – of the \$5 trillion in conventional currency circulating every day. But it is growing.

Blockchain and the Practice of Law

On August 15th last year, a group of law firms and technology companies announced the formation of the Global Legal Blockchain Consortium. The consortium will work to drive the adoption and standardization of blockchain in the legal industry, with the larger goal of improving the security and interoperability of the global legal technology ecosystem.

As noted in an *Above the Law* post by our friend Bob Ambrogi, members of the consortium include the law firms Baker Hostetler and Orrick, IBM Watson Legal, and the newly formed company Integra Ledger, which hopes to become the ledger used throughout the legal industry for blockchain digital identities.

The consortium's three goals for the future of blockchain in legal:

- An interoperable and secure global legal industry using blockchain technology
- Agnostic as to software, agnostic as to document management systems, and agnostic as to blockchain
- Universal, blockchain-based identities for law – client identity, matter identity, document identity

Drummon Reed, chief trust officer at Evernum, said, "With a blockchain, every transaction is digitally signed, every transaction is chained together, and it's replicated on hundreds of

computers around the world with digital signatures," noting that Bitcoin has never been hacked in its nine years of existence. But please do read to the end of this story . . .

Another speaker, David Fisher, the founder and CEO of Integra ledger, said that the key application of blockchain in law will be universal legal identities. Virtually anything or anyone will have a unique digital identity — legal matters, documents, individuals, entities, billing entities, and more. The identities will provide proof of existence and uniqueness, without identifying details that can be used by all Integra-compliant software.

The consortium's vision, Fisher said, is for every major law firm and corporate legal department to be a node in the blockchain with a synchronized copy of all the sequential ledger entries of identities. This will lead, in turn, to an open market for innovation in which these Integra identities will be referenced by:

- Other blockchains
- Legacy software companies, in order to add functionality
- Smart contracts
- Custom apps developed by corporate legal departments and law firms
- Applications developed by other consortia and working groups

The newly created Law Firm Innovation Index measures law firm innovation based on Google advanced searches for indications of innovation on the websites of the world's largest law firms. The category that garnered the greatest number of hits was blockchain, with more than double the average number of hits of artificial intelligence (AI). Now does that mean that they are actually doing a lot with blockchain? No. Not necessarily. But they know where the action is and want to be seen at the forefront of this new movement.

This blockchain train has bolted out of the station with amazing speed. Maybe unseemly speed. Technology is constantly morphing and evolving. Recently, it was reported that a piece of malware called Trickbot was targeting cybercurrencies. This could be a challenge to the stability and reliability of the blockchain platform which must determine how it will figure out if cryptocurrency is stolen or acquired from a malware attack since every coin has a unique code itself.

If you build it, they will come. We refer, of course, to cybercriminals.

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