## Writing Samples: Blockchain

~ Paulita Chartier

I'm a Digital Marketer I'm a Communications Pro





Digital Access paulita.chartier@gmail.com www.PaulitaChartier.com



Buzzzz Me 337 263-1104



If my doctor told me that I had only six minutes to live, I wouldn't brood. I'd type a little faster.

~ Isaac Asimov

# Writing Samples: Blockchain

~ Paulita Chartier

### **Table of Contents**

How Blockchain Technology Will Drive Clients to Your Law Firm	4
Unraveling Cryptocurrency, Article 9 and Bankruptcy	6
The Legal Risks of ICOs	8
Blockchain Technology May Help Artists with Copyright Protection1	0
Blockchain, Tax Attorneys and the IRS1	1
Blockchain Legal Implications: Chain of Custody1	.3

#### March 12, 2018

### How Blockchain Technology Will Drive Clients to Your Law Firm

Blockchain technology has been called the new black of technology. It conjures up images of a sexy new technology just arrived. You have probably heard of blockchain in relation to bitcoin and how it's bitcoin's underlying technology. But what exactly is blockchain, and how does it work? Most importantly, how will it affect the way law firms do business?

First, an explanation is in order. Simply put, blockchain is said to be an immutable, anonymous, unhackable, decentralized ledger.

How does this sexy new technology work? First, a transaction is broadcast worldwide to millions of unrelated nodes, or powerful computers. One node passes the information to a few nodes, which pass on the information to other nodes. Essentially, the information spreads like a raging wildfire throughout the nodes that are running the blockchain software.

Miners, who run the software on these nodes, compete against other miners to solve a highly complex algorithm. It's analogous to guessing how many gumballs are in a jar. The first miner whose computer cracks the puzzle earns cryptocurrency as a reward.

The miners gather several transactions into a block and add that block to a chain of previous data blocks. Each block contains data linked to the last block in the chain, thus, blockchain.

It is said to be immutable because it is virtually impossible to change all the transactions throughout the entire ledger. Each of the millions of computers has an exact copy of the ledger; hence, decentralized. How is all of this supposed to drive clients to your law firm? Well, someone has got to understand, interpret and be able to use this information in practical ways. Blockchain's star is Bitcoin, but the technology has many other uses.

Other industries, including banking, insurance, real estate and the arts, have begun capitalizing on blockchain capabilities. These and other clients will expect their attorneys to be well-versed in blockchain, including its advantages and disadvantages. Law firms that position themselves as blockchain experts today will likely see enormous returns in the not-too-distant future.

It is possible to create limited, simple contracts with blockchain, called smart contracts. Each time a criterion is met, the blockchain will execute specific contract terms.

Using smart contracts would free up a good amount of time for lawyers. Learning how to use them and offering the process to clients would help the clients and the attorneys. Eventually, attorneys who become blockchain wizards will work out how to write more complex contracts that will continue to bring considerable changes to the legal industry.

Since blockchain crosses all borders, one of the challenges that smart contracts bring is the question of jurisdiction and also legal enforcement if something unusual should pop up during the contract (not an unlikely occurrence). This will probably have to be worked out by those same attorney blockchain wizards.

In real estate law, blockchain could revolution-

ize how title records are stored and maintained. Today there are at least two significant problems with MLS data. The MLS tends to be outdated, which is something that cannot happen with blockchain. The MLS data is also quite fragmented, which won't happen with blockchain.

A few developing countries are beginning to use blockchain to record land purchases, as the technology is superior in recording immutable, time-stamped information.

Blockchain has already been used successfully in the music and arts industries. A creator's work can be time-stamped, establishing intellectual property rights for that creator. Work can also be stored and distributed via blockchain.

Estate planning is an area that could benefit from blockchain, with wills and trusts being put in blockchain, with certain things like the date of death being used as a trigger. Changes to these documents could easily be made in subsequent blockchain data, should the client desire.

For all of these uses, clients will come to the experts who are versed in blockchain data, what it is and how to best use it for the betterment of clients and law firms. The train is barreling down on us right now. Don't miss your opportunity to ride this shiny new technology. Hop on the blockchain today.

#### March 23, 2018

### Unraveling Cryptocurrency, Article 9 and Bankruptcy

The use of cryptocurrency is becoming more prevalent throughout the world. Until recently, it has pretty much been an economic free-for-all with little regulation or even definition by governments. As in most matters, however, governments are starting to express themselves on what position cryptocurrency occupies concerning regulations and law.

Cryptocurrency is an example of blockchain technology. This distributed ledger technology is the underlying force behind bitcoin, ethers and other blockchain projects. DLT is decentralized – transactions are recorded onto millions of computers simultaneously. Each block of data is linked to a previous block of data, that is, "chained" together. The transaction is synchronized, and all nodes reflect the updated data as it occurs. Once a transaction is validated and added to a blockchain, the transaction or asset is theoretically immutable.

An anonymous group called themselves Satoshi Nakamoto introduced the first bitcoin in 2009. It's taken off in the last few years as both currency and an investment tool. Meanwhile, the world's legal and government sectors have been playing catch up regarding what to do with cryptocurrency.

One area of law that is beginning to see movement involving cryptocurrency is bankruptcy law.

For bankruptcy court, Judge Montali of the Northern District of California's U.S. Bankruptcy Court issued an order that made clear what cryptocurrency is not. In an order filed on February 22, 2016, the judge wrote, "The court does not need to decide whether bitcoin are currency or commodities for purposes of the fraudulent transfer provisions of the bankruptcy code. Rather, it is sufficient to determine that, despite defendant's arguments to the contrary, bitcoin are not United States dollars."

Since the currency in question is not a dollar, how then should it be classified for the purposes of bankruptcy? It seems logical to look to the Uniform Commercial Code for answers. In addition to Judge Montali's thoughts, the UCC rules out the notion that bitcoin is money. It is not a "medium of exchange currently authorized or adopted by a domestic or foreign government."

UCC Article 9, Secured Transactions, might provide an answer. Cryptocurrency seems to fall under "general intangible," which "means any personal property, including things in action, other than accounts, chattel paper, commercial tort claims, deposit accounts, documents, goods, instruments, investment property, letter-of-credit rights, letters of credit, money, and oil, gas, or other minerals before extraction."

Once classified as a "general intangible," a debtor's personal property becomes subject to a creditor's interest in the property. The creditor now has a "security interest" in the cryptocurrency. As such, the creditor may sell the property to satisfy a debt if the debtor defaults.

With the cryptocurrency classified as a "general intangible," the financial statements creating a perfection may be filed in the debtor's jurisdiction and do not rely on possession or control. Once perfected, the security interest "continues in collateral notwithstanding sale, lease, license, exchange or other disposition thereof unless the secured party authorized the disposition free of the security interest[.]" UCC § 9-315(a)(1). Finally, a security interest will be attached and perfected to any cryptocurrency proceeds for at least 20 days. UCC §§ 9-315(e).

Turning to the bankruptcy code, it seems clear that cryptocurrency falls under "property of the estate" according to Section 541, which includes "all legal or equitable interests of the debtor in property as of the commencement of the case."

As for the traceability of cryptocurrency, the blockchain's decentralized ledger system renders transactions capable of discovery through a debtor's various financial statements since the asset itself is in the public domain.

The volatility of cryptocurrency may create problematic issues regarding valuation. An estate may have more than enough cryptocurrency to pay off debts on one day but could easily lose that value the next day or even in hours.

There are many, many forms of cryptocurrencies available, and more are being created every day. One can speculate how the courts and perhaps legislation will eventually treat bitcoin. It's an issue that will be worked out soon. In the meantime, one can look for guidance through a careful review of Article 9, the bankruptcy code, the mechanisms of bitcoin, and how it works.

#### March 28, 2018

### The Legal Risks of ICOs

Where there are profits to be won, lost or stolen, then governments and their rules, regulations and laws surely follow. So it is with cryptocurrency and Initial Coin Offerings.

The first bitcoin appeared on the cyber-scene in 2009 when the anonymous person or group called Satoshi Nakamoto created the first bitcoin block. Since then, the exchange of bitcoin, ethers and other cryptocurrencies have reached a fever pitch, with millions of currency being won and lost, sometimes in minutes.

The foundation of cryptocurrency is based on blockchain. Blockchain is an immutable, anonymous, unhackable, decentralized ledger technology system on millions of computers worldwide.

ICOs are deliberately based on Initial Public Offerings but without the laws and regulations attached to IPOs. Hence, we have the financial version of the Wild West Show. That show is about to be closed down.

If your client is involved in ICOs, be prepared for the genesis of government systems designed to reel in some of the wild out of the cryptocurrency frontier. Several governments worldwide are carefully hashing out the complicated, uncertain web of laws and regulations that may apply.

#### Is it a Security?

The most active United States government entity to involve itself in the free-for-all is the Securities and Exchange Commission. The most critical question for the SEC asks whether a particular ICO represents a security. If an ICO is a security, then that ICO is subject to SEC regulation. In July 2017, the SEC issued a report that concluded that The DAO tokens are securities because they fell under the Howey Test. According to the American Bar Association, the Howey Test is where:

- an investment of money has been made,
- in a common enterprise and
- the investor has the expectation of profits, which profits are expected to arise solely or substantially from the efforts of the promoter or third party.

The SEC and the Department of Justice have brought charges against Maksim Zaslavskiy. The SEC charged Zaslavskiy with "defrauding investors in a pair of so-called initial coin offerings (ICOs) purportedly backed by investments in real estate and diamonds." The diamonds and real estate did not exist.

The DOJ filed a criminal complaint charging the New York businessman with "securities fraud conspiracy in connection with engaging in illegal unregistered securities offerings and fraudulent conduct and misstatements designed to deceive investors."

Zaslavskiy filed a motion to dismiss the lawsuits because the tokens or coins were not securities. The case is ongoing in a federal court in Brooklyn, NY.

Meanwhile, if your client is setting up an ICO, be sure to very carefully word the White Paper documents spelling out the ICO. You want to be sure the ICO does not fall under the Howey Test. Likewise, if your client is considering purchasing tokens from an ICO, look closely at the Whitepaper documents. Speaking of securities, the Securities and Exchange Act of 1933 allows investors to sue a seller who peddles unregistered securities. If the buyer wins, all the investor bases might have to be refunded the entire amount.

#### The Taxperson Always Cometh

And they are out for The People's share of your client's bitcoin. When only 802 people 'fess up and pay their taxes on cryptocurrency, the IRS is bound to get testy. On Feb.8, Bloomberg reported that the IRS had assigned ten crack investigators to track down those not paying taxes on their cryptocurrency property.

Having issued guidelines in March 2014, the agency expected more compliance with the clarifications. Four years later, on March 23, the IRS released a memo reminding taxpayers (or supposed to be taxpayers) that cryptocurrency is reportable as property on their income tax returns.

#### There's More

Other areas where your ICO client will need your advice include consumer protection law, corporate governance and contract law, among other areas of law.

#### Finally

It is crucial that you do your homework in this cryptocurrency world. It may seem relatively straightforward, but this new area of law can be pretty complex. For those who like to be part of developing law, ICO law is the scene for you.

#### May 5, 2018

### Blockchain Technology May Help Artists with Copyright Protection

A literary artist works for years to create his masterpiece. A photographer spends thousands of dollars in training, equipment and supplies that one day culminates in that perfect shot. A musician bypasses the 9-5 workday and gambles it all on creating hundreds of pieces of music leading up to his grand opus.

Are their works protected against copyright infringement on the Internet? There is no question that the work is protected in the real world.

However, lines have been so blurred on the Internet that it's almost come to pass as a free for all. Like that tune? Download it. Wouldn't that photograph make a nice desktop wallpaper? Download it. And that cool story from that crazy author makes for nice listening on a long plane ride or road trip. Download it.

Copyright law protects all of the above, even in the free for all society of the Internet. According to the U.S. Copyright Office, the law protects original works such as "literary, dramatic, musical, and artistic works, such as poetry, novels, movies, songs, computer software and architecture."

A work is copyrighted from the moment of its creation. In the United States, an artist can register his or her work. To collect statutory damages and attorney fees, in fact, the work must be registered with the U.S. Copyright Office. But how do you prove that you created the work of art? The trick is that you've got to catch thieves at it, which is difficult enough. Catching them at copyright infringement in the virtual world has been next to impossible before now.

Enter the technology of blockchain, which has actually been in existence for nearly ten years. Blockchain, or distributed ledger technology, is the underlying force behind bitcoin. It is decentralized so that transactions are recorded across millions of computers and hard drives or nodes. Each block of data is linked to a previous block of data or chained together. The transaction is synchronized, and all nodes reflect the updated data as it occurs. Once a transaction is validated, the transaction or asset is theoretically immutable.

Generally, blockchain technology has been used in the finance world. Still, many possibilities exist, including helping creators protect their copyrights by establishing an immutable database of registration dates, provenance and contact information. This makes it easy for legitimate entities to find the author of a piece and transmit remuneration. It is also possible to check who has been downloading the work so that one can use the court of law to receive payment.

Today, several companies use blockchain technology to register and protect copyrights, including Binded, Pixsy, TinEye, Ascribe, Mediachain and Proof of Existence.

#### June 6, 2018

# Blockchain, Tax Attorneys and the IRS

Blockchain could very possibly solve many difficulties that face the Internal Revenue Service. Blockchain, the underlying technology of bitcoin, could revolutionize how the IRS conducts business. In revolutionizing how the IRS conducts business, it stands to reason that how tax attorneys conduct business would also be revolutionized.

According to Deloitte, "it is clear that implementing Blockchain would require far-reaching changes to the legal system, reforming laws on databases, intellectual property and legal identity."

What is blockchain, and how does it work?

Cryptocurrency is an example of blockchain technology. This distributed ledger technology is the underlying force behind bitcoin, ethers and other blockchain projects. DLT is decentralized. Transactions are recorded onto a multitude of computers simultaneously. Each block of data is linked to a previous block of data, that is, "chained" together. The transaction is synchronized, and all nodes reflect the updated figures as they occur. Once a transaction is validated and added to a blockchain, the transaction or asset is theoretically immutable.

An anonymous group or person called Satoshi Nakamoto introduced the first blockchain-based bitcoin in 2009. Blockchain has taken off in the last few years as both currency and a business tool. Meanwhile, the world's legal and government sectors have been playing catch up.

There are both public and private blockchains. Both use decentralized ledgers, both use protocol consensus, and both ensure ledgers are immutable. While anyone can join a public blockchain, a private blockchain may only be joined by invitation or permission and must be validated by the network starter or rules set up by the network starter. Today, many businesses are establishing private blockchains to help operate their systems.

In several situations, IRS complications could be smoothed out using private blockchain technology. There are several instances where the IRS must wait for lengthy periods before payments are settled or information is received. Blockchain could safely and securely speed the receipt of data from a mountain of forms. It could render payments settled in a matter of hours rather than days.

Blockchain is an ideal tool for reducing taxpayer identity theft. It would also alleviate staff and budget reductions. Storing taxpayer information via blockchain would offer a groundbreaking approach to ensure security and maintain accuracy of taxpayer data.

Tax attorneys must become well-versed in blockchain technology to properly and efficiently guide clients and how it will affect the changed tax law landscape. A tax law attorney must understand, interpret and be able to use this technology in practical ways.

Other industries, including banking, insurance, real estate and the arts, have begun capitalizing on blockchain capabilities. These and other clients will expect their attorneys to be able to understand and work with blockchain, including understanding its advantages and disadvantages. Attorneys who transform themselves into blockchain experts today will likely see enormous returns in the future.

Another area where blockchain could cause disruption is in the use of smart contracts. It is possible to create these limited, simple contracts with blockchain. The IRS could certainly put smart contracts to multiple uses.

A smart contract is a self-executing, self-enforcing program on a blockchain that, among other things, enables money or agreements to be exchanged. They are written in such a way that the rules are spelled out. Certain conditions must be met before the program will allow a party to proceed to the next step. The program will execute specific contract terms each time a criterion is completed. Using smart contracts would free up an enormous amount of time for the IRS and tax attorneys. Learning to use these contracts effectively would help clients, attorneys and the IRS. Eventually, tax attorneys who become blockchain wizards will work out how to use more complex contracts that will continue to bring considerable changes to the tax law industry.

It is, in all likelihood, simply a matter of time before the IRS and many other government agencies adopt blockchain technology to provide a secure, speedy, efficient and cost-effective manner to analyze, store and transform data and currency. Forward-thinking tax attorneys will be at the forefront of this wave.

#### September 3, 2018

### Blockchain Legal Implications: Chain of Custody

Most of those familiar with blockchain technology are familiar with the technology within the context of cryptocurrency. However, several more uses are beginning to wind their way through the evolution of blockchain technology.

First of all, what is blockchain, and how does it work? Simply put, blockchain is a decentralized ledger impervious to hacking, immutable and anonymous.

Cryptocurrency is just one example of the use of blockchain technology. This distributed ledger technology is the underlying force behind bitcoin, ethers and other blockchain projects. DLT is decentralized – transactions are recorded onto millions of computers simultaneously. Each block of data is linked to a previous block of data, that is, "chained" together.

The transaction is synchronized among hundreds of computers, and all nodes reflect the updated data as it occurs. Once a transaction is validated and added to a blockchain, the transaction or asset is theoretically immutable. A change in one copy or block of data on a system still leaves hundreds of other copies existing on hundreds of other computers. It would be virtually impossible to change the data on all of the decentralized systems.

Since its inception almost ten years ago, blockchain has developed into a mainstream technology that is trusted and transparent.

Today, chain of custody is the process of handling evidence from when it is collected until it is presented as evidence in a court of law. During the process, several people typically handle the evidence, logging it out and logging it in and physically signing forms to complete the process. There are many opportunities to taint the evidence and, more importantly, to have defense attorneys claim the evidence has been tampered with.

It is, therefore, critical that the evidence can be reliably traced from collection to presentation in court.

B-CoC: A Blockchain-based Chain of Custody for Evidences Management in Digital Forensics presents requirements that a CoC process should have:

- Integrity: the evidence has not been altered or corrupted during the transferring
- Traceability: the evidence must be traced from the time of its collection until it is destroyed.
- Authentication: all the entities interacting with evidence must provide an irrefutable sign as a recognizable proof of their identity.
- Verifiability: the whole process must be verifiable by every entity involved.
- Security: Tampering proof: Changeovers of evidence cannot be altered or corrupted.

By using blockchain technology with the chain of custody process, officials could significantly improve the process of ensuring all five of these criteria are met. It is a trusted technology that is traceable through its blocks of data. Any parties needing to interact with the data have had their information immutably recorded in the blocks of data, thus lending itself to being traceable. The chain of blocks also makes authenticity and verifiability evident. Finally, because blockchain is a decentralized ledger system, it is, at present, tamperproof.

Vijay Rathour of Grant Thornton explains using blockchain in the evidential chain. "In practical terms, this is achieved by generating and tracking a unique evidence token for every item of data we collect and receive – stored and auditable in our own private blockchain."

Blockchain is a powerful technology that is just now coming into its own. There will be many more uses for blockchain as more people who require the unique characteristics of blockchain come across the technology and its possibilities.