Cryptocurrencies & Blockchain: Legal and Ethical Issues You Need to Know to Help Clients

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The Truth About Blockchain
by Marco Iansiti and Karim R. Lakhani
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Contracts, transactions, and the records of them are among the defining structures in our economic, legal, and political systems. They protect assets and set organizational boundaries. They establish and verify identities and channels of trust. They govern interactions among members, organizations, communities, and individuals. They guide managerial and social norms. And yet these formal tools and the bureaucratic systems that manage them are not keeping up with the economy’s digital transformation. They’re like a side-hobby gas-guzzler topping a Formula 1 race car. In a digital world, the way we engage and maintain administrative control has to change.

Blockchain promises to solve this problem. The technology at the heart of bitcoin and other virtual currencies, blockchain is an open, distributed ledger.
Blockchain, what is it?

The underlying technology that allows cryptocurrencies to operate which is a decentralized distributed database with trust.
Database: Stores data (can be any type of data)
- Financial data
- Personally Identifying Information
- Contracts
- Any digital asset

Decentralized: Authority is transferred to a network, not a single database

Distributed: Data is stored in multiple locations
- Each entry is “chained” to the whole

Trust: Cryptographic security
- Built on public key infrastructure (PKI)
- Distributed nature means to modify without authorization
Simplistic

Think of it like a giant excel spreadsheet

- shared on the internet
- can only be added to
- nothing can be deleted once written.
- each transaction has a sender, a recipient, and data
Trust

Data is semi-public
  - Write once, read many

Uses public-key cryptography to ensure integrity and confidentiality
  - Anyone can view and verify your signature
  - Only you can see the contents
Distributed Database

No central authority
Infeasible to modify all copies of the data at the same time
“Blocks”

Someone wants to transfer something to someone else (cryptocurrency, property, contract)
“Blocks”

The block is transferred to all nodes maintaining the ledger
“Blocks”

The ledger systems attempt to validate the transaction
When a node validates the transaction, the block is added to the chain
Miners attempt to validate the block.
The first miner to determine validity is rewarded
“Chains”

Addresses “double-spending” problem

Valid Transfers

Bob doesn’t have $5 for Eddie
Lawyers have an ethical requirement of competence. Comment 8 to Rule 1.1 of the Model Rules of Professional Conduct specifically refers to technological competence as part of the required level of competence. The availability and incorporation of blockchain technology into the practice of law is likely to enhance professionalism and client outcomes. The technology has the potential to assist with contract drafting, document management, and legal research. As a result, the ABA Law Practice Division has convened a task force to determine the ethics of using blockchain in the practice of law, to identify how to best use the technology, and to assist in drafting rules on the subject for the Model Rules of Professional Conduct. The task force will meet on April 13 and 14 in Washington, D.C. Meeting participants will deliberate on the Model Rules of Professional Conduct as well as the ABA Model Rules of Professional Conduct for Arbitration and Mediation Services and the ABA Model Rules of Professional Conduct for Legal Services in the Area of Insolvency. The group will draft guidance on the use of blockchain in the practice of law. The group will consider topics such as the role of blockchain in client confidentiality and attorney-client privilege, the role of blockchain in legal research and the delivery of legal services, and the role of blockchain in contract drafting and management. The group will also consider the potential for blockchain to improve legal professionalism and the role of blockchain in the delivery of legal services to clients. The group aims to provide guidance on the use of blockchain in the practice of law and to identify potential areas for further research and development. The group will report its findings on September 19, 2017.
Where Blockchains Might Soon Impact Lawyers

1. Financial Transactions
2. Proof of Title
3. Chain of Title
4. Authentication
5. Identity
6. Chain of Custody
7. Evidence and Discovery
8. Client-Driven Expectations
9. Smart Contacting
10. More to Come “second coming of the Internet”
A smart contract is a computer protocol intended to digitally facilitate, verify, or enforce the negotiation or performance of a contract. Smart contracts allow the performance of credible transactions without third parties.
What are Smart Contracts?

Smart contracts help you exchange money, property, shares, or anything of value in a transparent, conflict-free way, while avoiding the services of a middleman.

The best way to describe smart contracts is to compare the technology to a vending machine. Ordinarily, you would go to a lawyer or a notary, pay them, and wait while you get the document. With smart contracts, you simply drop a bitcoin into the vending machine (i.e. ledger), and your escrow, driver’s license, or whatever drops into your account. More so, smart contracts not only define the rules and penalties around an agreement in the same way that a traditional contract does, but also automatically enforce those obligations.

1. An option contract between parties is written as code into the blockchain. The individuals involved are anonymous, but the contract is the public ledger.

2. A triggering event like an expiration date and strike price is hit and the contract executes itself according to the coded terms.

3. Regulators can use the blockchain to understand the activity in the market while maintaining the privacy of individual actors’ positions.
A public key infrastructure (PKI) is a set of roles, policies, and procedures needed to create, manage, distribute, use, store, and revoke digital certificates and manage public-key encryption. The purpose of a PKI is to facilitate the secure electronic transfer of information for a range of network activities such as e-commerce, internet banking and confidential email. It is required for activities where simple passwords are an inadequate authentication method and more rigorous proof is required to confirm the identity of the parties involved in the communication and to validate the information being transferred. [1]
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7 Major Companies That Accept Cryptocurrency

January 31, 2018, 09:56:10 AM EDT By Due.com

Digital currency, or cryptocurrency, is becoming more talked about and well known to the general public as time passes. In addition, increasing numbers of companies are accepting it as a form of payment for goods and services every day.

There are several different kinds of cryptocurrency that businesses may accept as payment for goods and services. Although not all do so at the present, there are more than 7 companies that accept cryptocurrency.

1. Overstock
In August 2017, Overstock.com announced their acceptance of cryptocurrencies as a form of payment for goods they sell. They will take not only Bitcoin, but Ethereum, Litecoin, Dash, and Monero as well.

They utilize a digital asset exchange company called ShapeShift to complete transactions. It converts currencies through blockchain in seconds without an account having to be set up.
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Who Accepts Bitcoins As Payment? List of Companies, Stores, Shops

Last updated on March 15th, 2018 at 01:52 pm
WordPress.com – An online company that allows users to create free blogs
Overstock.com – A company that sells big ticket items at lower prices due to overstocking
Microsoft – Users can buy content with Bitcoin on Xbox and Windows store
Virgin Galactic – Richard Branson company that includes Virgin Mobile and Virgin Airline
Expedia.com – Online travel booking agency
1-800-FLOWERS.COM – United States based online floral and gift retailer and distributor
Dell – American privately owned multinational computer technology company
Wikipedia – The Free Encyclopedia with 4,570,000+ articles
Tesla – The car company
Whole Foods – Organic food store (by purchasing gift card from Gyft)
Initial Coin Offerings ("ICO") Regulation

Cryptocurrency[1] regulation has evolved into a complex patchwork. There is currently no central federal regulator; instead, several agencies have taken an active role in developing the regulatory framework—though not all regulators have taken consistent approaches in their classification of cryptocurrency and related investment vehicles. This regulatory landscape can present challenges for companies seeking to employ virtual currency instruments. Perhaps nowhere is this more evident than the ICO market.

In a hearing before the Senate Committee on Banking, Housing and Urban Affairs on February 6th, both Jay Clayton, chairman of the SEC, and J. Christopher Giancarlo, chairman of the CFTC, testified about efforts to regulate Initial Coin Offerings ("ICOs"). Both affirmed that their agency would regulate it.[i] This article looks closer at the statements of both the SEC and the CFTC and educates the reader on recent developments.

What is an ICO?
Bitcoin and other virtual currencies have become a growing part of our modern economy. Although their future remains a source of uncertainty — they could, after all, become anything from the future of finance to a fad that dies out — nonetheless, major retailers like Overstock, Microsoft and Amazon have jumped on board, accepting Bitcoin in some form or fashion — either directly or through an industry of gift card providers that serve as a go-between for exchanging virtual currency — lending number of contexts. Virtual currencies, after all, bear characteristics of both property and currency. The IRS, for its part, has opted to treat Bitcoin as property, much like stock or real estate. This characterization appears in line with the position taken by the Commodity Futures Trading Commission (CFTC), which characterizes Bitcoin and other virtual currencies as “commodities,” but seems in tension with the U.S. Treasury Department’s Financial Crimes Enforcement Network’s (FinCEN) position that virtual currencies are more akin to (or at least a substitute for) real currencies for purposes of regulating “money transmitters.” Perhaps the relevant principle at play here is that regulators are likely to take the view that brings virtual currency within their purview and, of course, it is not necessary that federal, state or foreign jurisdictions take consistent stances.

The Basic Tax Approach

The use of convertible virtual currency like Bitcoin can have “real” federal tax implications. As previously mentioned, the IRS generally treats Bitcoin as property for purposes of determining gains and losses. This is the approach that the IRS has taken with other virtual currencies.

By Jason B. Freeman, JD, CPA | Column Editor
Bitcoin, Blockchain and the Revolution to Come
Cryptos Are Commodities, Rules US Judge In CFTC Case
FinCEN Fines BTC-e Virtual Currency Exchange $110 Million for Facilitating Ransomware, Dark Net Drug Sales

BTC-e July 26 Press Release FINAL1.pdf

Contact: Steve Hudak 703-905-3770
Immediate Release: July 27, 2017

Treasury’s First Action Against a Foreign-Located Money Services Business
Where’s Blockchain headed?
Get Ready for Artificial Intelligence (AI) in the middle of Blockchain!

POSTED BY PETER S. VOGEL ON 19 MAY 2017
POSTED IN ECOMMERCE

The eCommerceTimes column described combining “AI with blockchain allows for the
IBM Watson Health Announces Collaboration to Study the Use of Blockchain Technology for Secure Exchange of Healthcare Data

The joint initiative with the FDA is aimed at leveraging blockchain technology to improve public health.

ARMONK, NY - 11 Jan 2017: IBM Watson Health (NYSE: IBM) has signed a research initiative with the U.S. Food and Drug Administration (FDA) aimed at defining a secure, efficient and scalable exchange of health data using blockchain technology. IBM and the FDA will explore the exchange of owner mediated data from several sources, such as Electronic Medical Records, clinical trials, genomic data, and health data from mobile devices, wearables and the “Internet of Things.” The initial focus will be on oncology-related data.

Transformative healthcare solutions are possible when healthcare researchers and providers have access to a 360-degree view of patient data. Today, patients have little access to their health data and cannot easily share with researchers or providers. Giving patients the opportunity to share their data securely, for research purposes or across their healthcare providers, creates opportunities for major advancements in healthcare. Blockchain technology provides new tools to achieve these goals.
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Central Banks: Blockchain Will Overhaul Securities Settlements
Blockchain › Uniform Commercial Code (UCC)
Arizona's Governor Signs Latest Blockchain Bill Into Law
Blockchain insurance promises faster claims payments and cheaper coverage!

Insurance.com reported that Allstate Insurance is optimistic that “Blockchain has the potential to resolve a number of longstanding problems in the insurance industry.” The technology could help speed up claims processing, lower fraud, reduce paperwork, and improve accuracy.
How Blockchain Just May Transform Online Copyright Protection

When it comes to online copyright protection and enforcement,
Blockchain and IP law: a match made in crypto heaven?

February 2018

By Birgit Clark, Baker McKenzie, London, United Kingdom

Blockchain and related distributed ledger technologies have been a hot topic...
How Stock Exchanges Are Experimenting With Blockchain Technology

June 12, 2017, 08:50:48 AM EDT By Prableen Bajpai
Private Blockchains may not be be secure!

POSTED BY PETER S. VOGEL ON 12 MAY 2017
POSTED IN CYBER; ECOMMERCE

Coindeks recently published a blog which “attacks the idea that true immutability can be achieved in blockchain systems, arguing a more relative definition of this feature better encapsulates what’s the technology can achieve.” The May 9, 2017 article entitled “The
Current Blockchain Examples

• Diamond trade
• Realty chain of title
• Healthcare information
• International trade – oil, steel
• Luxury goods
• Consumer goods – farm to table, produce recall
Blockchain news - Legal risks are one of the 5 myths of bitcoin (which is powered by Blockchain)!

POSTED BY PETER S. VOGEL ON 19 DECEMBER 2017
POSTED IN ECOMMERCE
Why Sweden is Taking a Chance on Blockchain Land Registry
Blockchain Tech Could Disrupt The Oil Industry

By Editorial Dept - Aug 19, 2017, 11:59 PM CDT
Blockchain Opportunities

• Real Estate
• Sports, Media & Entertainment
• Advertising
• Retail
• Supply Chain Management
Justice for All
A Judicial System for the Internet Era

Try Demo

What Is It?

Justice without lawyers or courthouses

CrowdJury is an online platform that crowdsources judicial proceedings: filing of complaints, evaluation of evidence, trial and jury verdict.
How It Works

**Wrongdoing**
Matt, a civil servant, discovers that his boss, the Secretary, takes bribes from government contractors.

**Report**
Matt reports the offense in Crowdjury.org.

**Evidence Discovery**
Evidence (photos, docs, videos) are stored in a secure vault. Other witnesses provide additional evidence.

**Fact Checking**
Facts are checked by self-selected experts from the crowd.

**Trial**
The trial takes place online and is broadcasted to the public. Any user can interrogate the defendant and comment on the evidence.

**Verdict**
A collective jury of randomly selected users decides whether the defendant is guilty or not.

**Compensation**
All who helped by reporting the wrongdoing, gathering evidence, checking facts and voting as jurors are rewarded in Bitcoin.

**Absolute transparency**
Evidence and jury decisions are recorded in the blockchain and are fully auditable.
Justice as a service

Where CrowdJury can help

- Gaming Communities
- Car Insurance
- Software Patent Dispute
- Academy
Where Blockchains Might Soon Impact Lawyers

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