



Blockchain Explained: Some Basics About This Emerging Technology

BY REBECCA G. DISTEFANO

With some of the world's largest companies investigating whether blockchain technology is relevant to their business, understanding how it works is becoming more important.

This 10-year-old technology is gaining momentum worldwide to securely store and transfer data and record transactions, and new surveys show nearly half of technology leaders plan to adopt blockchain for business.

Blockchain was born in 2008, with the introduction of bitcoin, when a document titled "Bitcoin: A Peer-to-Peer Electronic Cash System" emerged under the name Satoshi Nakamoto.

It introduced a decentralized electronic cash transfer system—one that does not rely on any central authority for issuance, settlement of transactions,

or validation of transactions. This was the beginning of a new field of data set storage and transmission.

Blockchain is a digital recording of transactions and a transfer of data sets across a network of computers or nodes. The chain or ledger is a growing list of records, called blocks, that are linked using cryptography, or computer code. Each block contains a cryptographic hash of the previous block, a timestamp and transaction data. Each participant in the chain maintains a "replica" of the prior transactions, which are digitally signed, and believed by many technology experts to be a permanent record resistant to tampering.

There are public and private blockchains. The distinction between the two is who is allowed to participate

in the network, make decisions, and have access to the shared data ledger. The bitcoin blockchain might be the largest publicly accessible. A private blockchain network allows participants to join by invitation only and is sometimes called a "permissioned network."

Business applications for blockchain are believed to be limitless. Currently, blockchain applications are envisioned and developing across an array of industries, both financial and nonfinancial, although business uses for blockchain technology have matured in the crypto-asset mining and trading arenas. Other business applications using a distributed ledger include:

- Real estate.
- Trading or investing in virtual currencies.

- Smart contracts.
- Safekeeping and digital wallets for smart assets.
- Cloud storage.
- Digital identity.
- Digital voting.
- Decentralized notary services.

Virtually any business seeking improved business efficiencies, as well as enhanced privacy and security of online information, might be a good candidate for blockchain use.

Financial institutions are in the nascent stages of creating custodial solutions—ways to hold cryptocurrencies on behalf of customers—while supply-chain businesses are looking to blockchain to help them move products more efficiently.

With the increased use of blockchain, there are several pitfalls. There is a short supply of experienced coders and programmers to develop the technology, delaying innovation. There are also questions of funding and demand, as well as significant regulatory hurdles to using blockchain for business. Agencies, such as the Securities and Exchange Commission and the Commodity Futures Trading Commission, as well as state regulatory agencies, have provided limited guidance.

Worldwide acceptance of blockchain business uses probably will not occur until there is consensus among non-U.S. and U.S. federal and state regulators. There also are concerns related to public blockchain-mining companies, including the significant amount of energy required in the “proof-of-work” consensus mechanism to secure its blockchain.

Businesses and entrepreneurs might avoid being caught in some of the potential pitfalls through involvement in enterprise collaboration involved in building blockchain networks and partnerships to develop business and human solutions in close coordination with regulatory agencies. They should work in advance with legal counsel to understand the current and rapidly changing legal, regulatory and legislative landscape for blockchain. In addition, understand how humans and businesses currently prefer to transact business, buy goods, and interact with one another using this technology.

Pitfalls associated with distributed ledger technology innovation and the transformation of industries cannot be avoided. However, in light of the enterprise companies venturing into the space with a risk-reward mindset, it seems likely a proof of concept development of blockchain technology will lead to mainstream adoption, having eventual positive effects on mankind.

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CRYPTIC REGULATIONS

In a recent podcast, Tom Cardinale, a tax partner at EisnerAmper, was asked about a lack of cryptocurrency tax reporting. Here are highlights of his answer. (Full transcript at <https://goo.gl/M2WvMQ>)

“Right now, crypto exchanges aren't like your normal brokerage exchanges



where you trade stocks and bonds. It's really its own animal. And crypto exchanges are currently not required to fill out what we

call a 1099B, which should report gains and losses like you would have for stock transactions. It's basically every exchange is for themselves, and what they give you could be anywhere from a summary of just what you sold, just the proceeds. Other times you may have to download the entire history for the calendar year of all crypto transactions you made, and it could wind up being thousands of lines of micro transactions. It's an extremely difficult burden to compile all of that data, especially if you're an avid trader. And the other side of it is that, because the [Securities and Exchange Commission] is still debating itself whether to characterize crypto as a security or a commodity or a utility, they do not have any written rules yet of what crypto exchanges should be providing to traders and taxpayers.

“A lot of taxpayers, based on history and the lack of reporting of gains, seem to think they're getting a free ride and they don't have the obligation to report the gains and losses when in actuality they should.”

A NEW TWEAK FOR MEDICAL MARIJUANA?

The Florida Legislature and governor passed legislation that allows medical marijuana patients to smoke cannabis instead of having to consume it by other methods. However, the state might not be

done with regulations. Senate President Bill Galvano is contemplating legislation that would cap the percentage of THC in medical cannabis, Orlando Weekly reports online. <https://goo.gl/RqMBoF>

BILL COULD BOOST CRAFT DISTILLERS

Florida Senate Bill 220 would allow craft distillers to sell drinks at their distilleries rather than just provide tastings, the Tampa Bay Times reported. Distillers also could apply for licenses to sell directly to customers at eight additional locations beyond the distillery.

THE SPA, UNDERCOVER VIDEO, AND FLORIDA IN THE SUNSHINE

New England Patriots owner Robert Kraft and other defendants in the Orchids of Asia Day Spa cases are trying to block release of undercover videos of activities in the spa. An array of news media, including the owners of the three South Florida major daily newspapers, say the videos should be public record. Deadspin journalist Diana Moskovitz explains why Kraft might have a difficult time winning his case. <https://goo.gl/qamkfu>

VICTORY FOR NFL PLAYERS

Van Horn Law Group has won an appeal (Case NO. 18-cv-61581-KMW) that protects former NFL players from having to relinquish NFL Concussion Settlement funds during Chapter 7 bankruptcy proceedings. The firm says this is the first U.S. case that protects settlement funds, awarded upon diagnosis

of neurocognitive illnesses as a result of repetitive brain trauma. “This was an attempt by a bankruptcy trustee to seize funds that we believed clearly were exempt and protected under bankruptcy law,” said Chad Van Horn, lead attorney in the case.



Chad Van Horn