



Blockchain Technology Could Greatly Impact Payroll

Craig J. Lewis is Chief Entrepreneur Officer at Gig Wage

Reprinted from
the July 2018
Paytech Issue



"Bitcoin has no CEO, HR, or payroll department. It's a nine-year experiment and proof point that distributed ledger technology works and the future of the workforce will be decentralized. What are you doing to adapt?"

- Samson Williams, Partner at Axes and Eggs,
a blockchain and cryptocurrency consultancy.

The best-known example of blockchain technology is cryptocurrency. But what in the world is cryptocurrency? Great question.

Some of the more well-known cryptocurrencies are Litecoin, Ethereum, and, of course, Bitcoin. Crypto is essentially digital money that is bought and sold online. There are no bills or coins. It is not based on another asset such as gold, and it doesn't go through traditional financial institutions such as banks.

These currencies operate in a completely decentralized system to track transactions, known as blockchain technology. This alone can help reduce costs, free up tasks, and eliminate paper—all things of which payroll and HR are notorious for. Blockchain changes all of that.

How Cryptocurrency, Blockchain Works

To see how cryptocurrency works (and therefore blockchain is formed), let's see how someone would buy something with cryptocurrency.

Say that Jane wants to buy a computer monitor from Jamal using Bitcoin, her cryptocurrency of choice. Jane would log in to her Bitcoin wallet with a private key, a unique combination of numbers and letters. In a traditional financial transaction, the exchange gets sent to banks on each side that record the money being subtracted from one account and added to another. But remember, in this scenario, there are no banks and no middlemen.

Instead, Jane's transaction is shared with computers in the Bitcoin network. These networked computers add Jane's transaction to a shared list of recent transactions known as a block. Every 10 minutes there's a new block of transactions added on or chained to all of the previous blocks. That's how you get a blockchain.

To ensure that each block of transactions on the chain is verified, a subset of Bitcoin's network joins a race to solve a difficult math puzzle. If they solve it first, their record of the block of transactions becomes the network's official record. They are rewarded with Bitcoins of their own, and the network

gets a new block on the chain. This entire process is known as mining. But instead of chipping away at rock, you're solving complex puzzles to earn crypto.

The fact that many computers are competing to verify a block ensures that no single computer can monopolize the Bitcoin market. To ensure the competition stays fair and evenly timed, the puzzle becomes harder when more computers join in. The Bitcoin protocol says mining will continue until there are 21 million Bitcoins in existence, and that's set to happen around the year 2140.

Blockchain simply provides Jane a decentralized and secure ledger that gives her, Jamal, and others a way of validating the information related to a transaction. In doing so, it speeds up the process and cuts out any middlemen.

What About Payroll, HR Specifically?

"Blockchain technology makes transactions more efficient," said Anthony "Pomp" Pompliano, Managing Partner at Full Tilt Capital. "As adoption grows, expect blockchain to reduce costs and free up internal headcount to focus on more impactful things. Payroll and HR are notoriously paper-heavy, and blockchain changes that."

Without building an exhaustive list, here are some areas where you can expect to see blockchain technology successfully applied:

- 🔗 Time and attendance tracking
- 🔗 Employee scheduling
- 🔗 Demand prediction
- 🔗 Payroll administration
- 🔗 Benefits administration
- 🔗 Talent management
- 🔗 Training programs and assignments
- 🔗 Performance monitoring
- 🔗 Vacation and leave planning
- 🔗 Career planning
- 🔗 Crisis preparedness

Pay attention to the market-leading vendors starting to talk about blockchain, but rest assured that it will be the startups and entrepreneurs that will drive significant change, enabled by blockchain innovation. Startups are already providing and developing payroll solutions and unbundling individual payroll and human resource use cases for niche processes.

To get a good feel for the potential of new blockchain solutions for payroll processes, you may want to look outside of payroll and HR, to places where blockchain has started disrupting an existing value chain. But regarding payroll specifically, the most applied-use cases being tackled right now are cryptocurrency transfers to international payroll payouts and smart contracts for contingent workforce management.

Payment System of the Future

What the internet is to information, blockchain is to value. Just like the rise of the internet, blockchain has the potential to truly disrupt every industry and make processes more secure, transparent, and efficient—especially core HR processes such as payroll, recruitment, competency management, learning, time, and other workforce management practices.

"The key foundational function of blockchain technology is value exchange and recordkeeping," said Stephen Ellis, Director at the North Texas Blockchain Alliance. "It is the most significant innovation in recordkeeping in the past 500 years. This advancement will create the payment systems of the future. These systems will enable advances in payments such as real-time settlement, as well as virtually instant clearing, which could only have before existed as utopian ideals."

You should start and continue learning, understanding, and reading about the blockchain. A good place to begin is by reading payroll-related blockchain whitepapers. Tech leaders are predicting that this technology will drastically change the way we run businesses and the way we work. Banks and governments all over the world are starting to agree. This may be a great macro shift in technology for you to advance your career and become an early adopter of this massive disrupter in the payroll industry. ■

Craig J. Lewis is Chief Entrepreneur Officer at Gig Wage.

The American Payroll Association (APA), www.americanpayroll.org, is the nation's leader in payroll education, publications, and training. This nonprofit association conducts more than 300 payroll training conferences and seminars across the country each year and publishes a complete library of resource texts and newsletters. Representing more than 23,000 members, APA is the industry's highly respected and collective voice in Washington, D.C. Get more information at www.americanpayroll.org.

The Global Payroll Management Institute (GPMI), www.GPMInstitute.com, spearheads the APA's global initiatives to provide the world with a leading community of payroll leaders, managers, practitioners, researchers, and technology experts. Subscribers connect with each other through networking discussions, collaborative opportunities, and access to education and publications dedicated to global payroll strategies, knowledge, research, employment, and training. GPMI also publishes several global payroll texts and white papers as a benefit to subscribers. Get more information at www.GPMInstitute.com.

