



Blockchain for Beginners

It's touted as a link to the future of journalism. The first step is trying to understand what it is.

—
BY ANGELA MORRIS

Blockchain technology and cryptocurrency could add new revenue streams for journalism. Or perhaps they are nothing more than distractions from the industry's drastic problems.

That depends who you ask.

Proponents say that blockchain technology and cryptocurrency could open a new revenue stream for journalism, create more security and permanence of news archives, and give readers a new way to engage with news and journalists.

On the other side, there's doubt whether the technology can solve any of the dire problems the industry has faced with the rise of the internet and siphoning of advertising revenue.

FIRST, A PRIMER

To understand the problem, it's first necessary to decipher the lingo.

Blockchain at its essence is a record-keeping technology. It's innovative because instead of keeping records in a database saved on one computer or server, it uses a distributed ledger running on a network of computers spread around the world.

Upside: It's very difficult to alter a record nefariously.

Cryptocurrency is one application of blockchain technology.

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HEAD OF MARKETING,
CIVIL MEDIA CO.

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For example, when a person sells a Bitcoin — one version of cryptocurrency — to someone else, the network of computers that are running the Bitcoin blockchain are tasked with verifying the transaction to ensure it's legitimate, and then recording the sale in the distributed ledger.

Aside from a blockchain running a cryptocurrency ledger, there are many other promising ideas on ways to use the technology. It can record when a house is bought or sold or track how raw materials move through a company's supply chain. Walmart, for example, once tested blockchain technology to track mangoes.

The most common idea for its use in journalism is for storing articles, photos, videos and other content within a blockchain ledger — as opposed to that content living on a publication's content management system on one server.

As for cryptocurrency, a reader could use it to pay for a subscription or microtip a journalist. Readers could purchase the cryptocurrency with fiat currency (the

money we are used to, such as U.S. dollars) or they could earn it by participating on the platform — for example, by reading, commenting or fact-checking. When a publication or a journalist is paid with cryptocurrency, they can trade it back into U.S. dollars using a cryptocurrency exchange company.

"If you look at what we were ultimately trying to do, it would be the first consumer-facing application of blockchain technology," said Matt Coolidge, head of marketing for Civil Media Co.

The blockchain journalism startup met with hopeful headlines when it ambitiously attempted to raise \$8 million in funding through cryptocurrency last fall. Unfortunately for Civil, the public only ponied up \$300,000. An additional \$1.1 million from its main investor, ConsenSys, didn't bring it close to that target.

As Civil continues to try to craft a "new economy for journalism," (The company has pledged to move forward and launch its products in February, when Quill was go-

ing to press), there are competing blockchain journalism startups that are testing out similar ideas, and others whose companies put a different spin on the shiny new technology.

For example, the company Po.et helps content creators to record their ownership in a piece of content in the Bitcoin blockchain. If someone attempted to plagiarize a story, the real author could easily prove his ownership. Another use: if a freelance photographer wanted to license his picture to a news organization, the photographer could track the license on Po.et.

Another company, Honeycomb, can transform a reader's phone into a cryptocurrency mining machine.

Cryptocurrency mining is the process of creating new cryptocurrency — it's complicated, but essentially, computers in the blockchain's network compete to solve a mathematical problem, which forges new coins. The Honeycomb software would plug in to a news organization's existing mobile news app, then ask readers to opt-in to allowing their phone to mine a cryptocur-



rency called Monero. Those funds would go back to the news organization.

The only cost to readers would be paying for the electricity to charge their phones overnight, when they would be mining the Monero.

SKEPTICS EMERGE

Despite the hype, some with long histories of involvement with journalism technology poke holes in blockchain's promises.

Daniel Sieberg, a Civil co-founder who left the company last summer, has questioned whether cryptocurrency can add value to the news business.

"Why is there a token? What does that do that a dollar can't do? This is a whole stinking pile of shit," Sieberg told *The Bridge*, a Brooklyn, New York, business publication. He declined further comment when reached by Quill.

He's not the only one to question what a token — another name for cryptocurrency — can do for journalism.

Dan Sinker, former director of OpenNews, a community building and collaboration organization for journalism technologists, said that "magic journalism coins" can't change decades of bad decisions by news executives, nor can it reverse declining readership attributed to competition on the internet.

"It doesn't solve a single problem that journalism is actually facing right now," he said. "It's saying we need more independent journalism — which is true — so we'll do it by creating a whole new bureaucracy for journalism. Why? How does it help?"

Christopher Guess, lead technologist at the Duke University Reporters' Lab, a research center with a focus on fact-checking and trust in the news media, started watching Civil early on.

"Blockchain is just a very inefficient database — that's it," he said. "It's literally a data-storage mechanism that ensures nothing

OPPOSITE: From left, Matt Coolidge, Lillian Ruiz and Christine Mohan, three of Civil's co-founders, confer at the company's NY headquarters. (Photo by Nick Himmel)

Who's Who in the Cryptic World of Cryptocurrency

CIVIL MEDIA CO

Focused on high-quality, ethical journalism, Civil has attracted professional journalists to launch newsrooms on its platform, which is still under development. Civil runs on the Ethereum blockchain and uses a token called CVL, used to vote to approve or reject new newsrooms, subscribe to publications or microtip individual journalists. Civil's first token sale from September to October 2018 failed to raise its minimum of \$8 million, but the company has promised to hold a second token sale.

DNN

An acronym for Decentralized News Network, DNN aims to become a news website running on the Ethereum blockchain and using a token called DNN. Its founders imagine attracting citizen journalists rather than professionals, with writers submitting content and fact-checkers reviewing and requesting changes before publication. All participants (even readers) get compensated with DNN tokens and can use a cryptocurrency exchange to convert DNN to ether and then U.S. dollars. The company sold \$2 million in tokens to 3,000 people in summer 2018 but it's still in the pre-launch alpha testing phase.

HONEYCOMB

Honeycomb offers an innovative way for publishers to monetize their mobile apps. The Honeycomb plug in would prompt the phone's owner to opt in to using a cellphone to allow Honeycomb to mine a cryptocurrency called Monero. The phone would mine Monero overnight when the person's cellphone was plugged in, with the publisher keeping revenue from the cryptocurrency.

PO.ET

Po.et runs on the Bitcoin blockchain and uses a token called POE, which will compensate authors, reward readers who curate content and

allow people who wish to license an author's work to pay the author. It also offers a service to existing publishers who wish to create a timestamp on the blockchain for their creative works. Registering with the Po.et network gives them a way to license their work to others and track unauthorized uses. Publishers could use a plug in to integrate Po.et with their own content management systems, and there's promise of an eventual platform for readers to discover content through Po.et "marketplaces" too.

PUBLIQ

PUBLIQ is a news app, still in the pre-launch testing phase, that runs on a content distribution network called DECENT. PUBLIQ's writers and editors earn a reputation score for their participation while PUBLIQ sells ad space to advertisers as its main revenue source. Rather than keeping funds, PUBLIQ uses smart contracts to redistribute the value to the network's participants based on their reputation scores. If readers don't want ads, they can pay for subscriptions.

STEEMIT

Steemit is a social network and blogging platform for amateur writers rather than professional journalists. It's the earliest working example of a blockchain publisher and crypto-economics writing platform. Content publishes on the Steem blockchain and writers and readers can earn Steem tokens for participating. They can then spend the tokens on Steemit, or use a cryptocurrency exchange to trade the tokens for cash.



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ing has been edited. ... In journalism, when is there a point you want to ensure no edits were made to something? Never."

BENEFITS OF BLOCKCHAIN

Civil's Coolidge noted that his company never touted itself as a "silver-bullet solution" to cure journalism's ailments. But he does think blockchain and cryptocurrency can add value to the industry.

"With the crypto side of things, there are potential new revenue streams, potential

new ways to experiment with reader engagement," Coolidge said.

Honeycomb co-founder Orlando Watson said the business model for news is broken.

"What that means for news publishers is they have to find a way to generate revenue," Watson said. "Where I see the promise for Honeycomb and other blockchain journalism projects is to offer a new way to monetize content."

That's also a hope of Maria Bustillos, editor-in-chief of Popula, the first newsroom that

signed up on Civil. She said journalism has suffered as Google and Facebook siphoned off advertising revenue from news outlets.

"Blockchain gives us a way to get outside those economies completely," she noted. "I look at blockchain technology as being internet 3.0. We're planting a flag in this brave new world that Facebook doesn't control."

The ability to preserve news archives is another benefit, added Bustillos. Previously in her career, she saw her stories disappear when Gawker, a publication she wrote for, went out of business and deleted its website after losing a lawsuit. Late last year, Bustillos celebrated when she published the first full-text story by a U.S. publication onto the Ethereum blockchain, which she says ensures the story will never be deleted.

Ethereum is one of the most popular cryptocurrencies, behind Bitcoin.

When a story is stored on a blockchain, readers can trust that it wasn't edited or censored, said Samit Singh, CEO and co-

founder of DNN, or Decentralized News Network, a blockchain journalism startup with a model that's similar to Civil. Chinese citizens have responded positively to DNN because of their government's censorship of news, he said.

"When something is stored on the blockchain, it's immutable and can't be tampered with by any third party. Once it's there, it's there forever. It's great for markets prone to censorship," Singh said.


Bustillos is also psyched about what cryptocurrency might mean to Popula's audience. She wants her readers to become stakeholders in her journalism and sees Civil's cryptocurrency, dubbed CVL, as a way to make that happen. When readers follow Popula's stories, interact with its journalists and comment on stories, they have a chance to earn CVL.

It's like paying them for their attention, Bustillos said. "We are getting readers involved," she said. "I'm in favor of that."

Such audience-pay models, which rely on direct relationships with readers, are

becoming more and more important as the industry undergoes a fundamental shift away from relying on advertisers for revenue, said Phillip Smith, who founded the Journalism Entrepreneurship Training Co. in San Francisco.

Smith added it's a success that Civil invested a relatively small amount of money yet helped launch 18 newsrooms. Other philanthropic foundations and venture capital firms that support journalism spend more cash for fewer news outlets.

"At a time when the news industry is asking the question, 'What comes next?'" Smith said, "I believe digital upstarts are going to be a big part of the answer to that question." 

Angela Morris is an Austin-based freelance journalist who covers blockchain technology and cryptocurrency. She wrote one freelance article for the Civil newsroom Popula, which was unable to pay her the full, contracted amount for the story because of Civil's troubled token sale.

OPPORTUNITY FOR STUDENT MEMBERS

Robert D.G. Lewis **FIRST AMENDMENT** AWARD

The award was created to honor former SPJ President, National FOI Chairman and Wells Key recipient Robert D.G. Lewis, a staunch advocate of press freedom. With the generosity of the Lewis family, the award is given each year to a student SPJ member who has demonstrated outstanding service to the First Amendment.

The scholarship will provide a complimentary registration to the annual Excellence in Journalism conference in September and \$350 toward travel expenses.

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