Blockchain Can Help You Get to Know Your Farmer

By Paige Smith

- Technology could show if farm is unionized, too
- Tracking capabilities could eliminate some jobs, create others

Mention the word blockchain, and the first thing most people think of is bitcoin. What some don’t realize is that blockchain technology can change how people work and how that work is monitored.

Case in point: supply chains that move produce from farm to table.

Typically, produce is harvested, sent to warehouses, then shipped to retailers. If someone needs to find out where a particular head of lettuce was picked, employees have to dig through stacks of invoices, which could take days. With blockchain, the information is instantly available, and those workers have less to do.

Blockchain could also hold data on labor practices along the supply chain, according to professors and industry professionals. Unions welcome that application as a way to inform consumers about, for instance, whether those who pick the produce are unionized. But that’s not likely to happen any time soon, a United Farm Workers official told Bloomberg Law.

To understand blockchain, it is easiest to imagine the technology as a transparent, tamper-proof vault with a one-way door in and no way out. Information can be added to the vault but never removed.

With blockchain, there’s no middle man. “This is a peer-to-peer technology. Any peer-to-peer technology is going to take people out in the middle,” Duke University professor Campbell Harvey told Bloomberg Law.

Blockchain particularly puts medium-skilled workers at risk for job elimination, Harvey said. “Back office” jobs—such as accounting or IT roles that rely on clunky software and its upkeep—could be eliminated.

“We’re not talking about the robot barista” jobs being replaced, Harvey said. “These are jobs that I think we would call white collar.” He described functions like tracking shipments as very labor intensive.

“Many traditional back office employees will lose their jobs,” he said. “If you work in a back office function, beware—blockchain is coming.”

Not So Fast
Work will change as technology advances, but not as fast as the hype may suggest, Harvard University professor Sheila Jasanoff told Bloomberg Law. Jobs will most likely not be slashed wholesale, but some classifications would take harder hits than others, she said.

Blockchain could also create new jobs, as retailers demand more information, Harvard Business School professor Willy Shih said.

For example, as customers want more minute-by-minute updates of the status of deliveries, retailers might want more information on the status of goods in transit, he said. More software technicians could be needed to answer those requests.

**Walmart Takes Blockchain Plunge**

Walmart is the most recent high-profile adopter of blockchain. The corporation mandated its suppliers link in to IBM-developed technology on Sept. 24, in response to an E. coli outbreak in June that plagued 210 people in 36 states.

“Just as blockchain creates transparency within the food chain, we also believe that blockchain can have some natural applications that will benefit the worker and transparency between farm and employee,” Walmart spokesperson Michelle Malashock told Bloomberg Law in an email.

Malashock clarified that there is no promise of jobs created or eliminated.

**Window Into Worker Treatment?**

Without blockchain, retailers couldn't easily see where their goods were grown or who harvested those goods.

The technology is also capable of providing a window into how those laborers are treated, Brian Behlendorf, executive director of the non-profit Hyperledger, told Bloomberg Law. If laborers aren't treated equitably, that information could be entered into the blockchain.

Behlendorf envisions adding data in blockchain that would allow customers to scan a code and see if workers are being treated fairly along the supply chain.

“Let's use this as a way to reward growers who go the extra mile,” he said.

‘**So What?’**

Unions could use blockchain to their advantage, but it would require getting permission from the employer to add data that’s of interest to consumers. Companies may not be comfortable sharing information about working conditions.

“The push for transparency is important,” Erik Nicholson, vice president of the United Farm Workers, said. “It really just depends on who is inputting what.”
Blockchain can also verify terms and conditions for workers traveling to work on farms. After all, entries in the virtual vault can’t be altered.

“Often, workers are told they’re going to make this amount,” he said. “When they arrive, it’s very, very different.”

When that sort of bait-and-switch occurs, workers might complain but to little avail, Nicholson said.

“Blockchain changes none of that,” he said. “Then the question is, ‘So what?’”

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