The Intersection of Blockchain and Human Rights

By: Attorney Anessa Allen Santos, 13 Aug. 2018

When I was a Public Defender 15 years ago, I represented a client whose story is forever imprinted upon my memory. Roberto (not his real name) was a migrant worker from Guatemala who had migrated north to work in the tomato fields of Immokalee, FL. Pulled over on pretext and arrested for driving without a license and resisting arrest without violence, Roberto explained that he reacted out of fear because he thought the situation was a "Guatto-Lotto" hit.

Photo provided courtesy of:
Immokalee Worker's Coalition

I was completely baffled. Did something perhaps get lost in translation? Confused, I urged Roberto to continue. He explained that the police vehicle was undercover (I checked, it was) and so he thought he was being chased down as a Guatto-Lotto. I still didn't understand; so, I looked to his friend whom he had brought along for support, and for his ride, for clarity. Migrant workers, the friend explained, are paid very little, about $60 per day, and usually in cash. However, because they don't have the proper credentials to open a bank account, they have to carry their money on them at all times. There is simply nowhere safe to leave it. Each day, they carry it with them to the fields where it becomes soaked with sweat borne under the central Florida summer sun where the heat index often rises into the triple digits. And then, when they have enough, and they can secure transportation, they head to the local Western Union in order to send most of it back to their families. The friend continued, this trip is very dangerous, especially for Guatemalans due to their smaller stature, and they are often violently robbed. If the hit is successful, it's like hitting the lottery. Hence, a "Guatto-Lotto".

I was appalled, but unbelievably, the story gets worse. Upon arrest, the officer searched Roberto and found the moldy wad of bills he had worked so hard to save up for his hungry family back in Guatemala. Suspicious or opportunist, I'm leaning towards the latter, the officer then robbed Roberto of his money and kept it under the rules of criminal forfeiture. Horrified and outraged at this brutal injustice happening with regularity in my own backyard, I turned my attention to providing the best defense possible; and though I desperately wanted to do something more, there was nothing I could do, until now.

What is blockchain? "Blockchain is not a panacea." I hear this all the time, and

to some extent, those people are right. Blockchain isn't a panacea, but it sure could fix a lot of really big problems for millions of people around the world, people like Roberto. In its simplest terms, blockchain is a software-based technology that allows people to conduct all kinds of transactions directly with each other without the need for banks or other intermediaries. It is a wholly decentralized network that may be public or private, that is maintained by anonymous system operators who solve cryptographic puzzles in order to validate each transaction as true. When confirmed by network consensus, several transactions are bundled together in a single, encrypted data block which is given a unique identifier called a "hash", and then is recorded in chronological order. The new block references the previous block, thereby forming a chain. Hence, a block-chain. Each new block is copied to every network participant, so every node always has an updated copy of the entire ledger. This system creates a secure audit trail resistant to

fraud or tampering because no one central authority controls the data, and because a record cannot be altered without incurring substantial expense or difficulty.
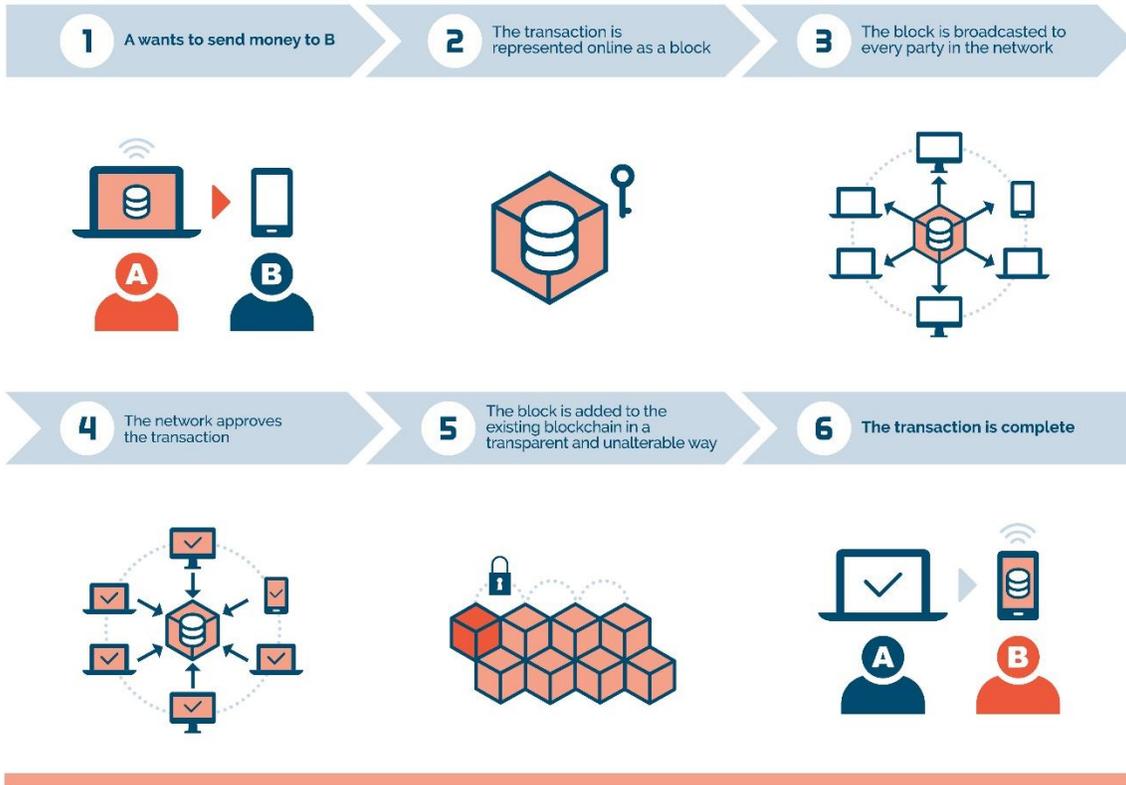
Documentation that establishes one's legal identity is the gateway to modern life. Without legal proof of your identity, you can't vote or drive; you can't open a bank account or access government services.[1] "Good luck getting into a bar".[2] "According to the World Bank, more than a billion people have no way to prove their identity",[3] and among them are 24.5 million refugees.[4] While refugees protected by the 1951 Refugee Convention are issued identity and travel documents by host nations,[5] these documents may be forgotten, lost, destroyed or stolen.[6]

The value of storing identities on the blockchain extends both to the recipients and to their respective governments. Blockchain registered identities tied to biometrics create an indestructible record traceable only to the particular individual. By using banking applications built on the chain, a person's financial transactions recorded on the chain build a credit history over time, serving as a form of identity for later use, "essentially creating the trust they need to interact with the world, without depending on a centralized authority … to vouch for them".[7] Within this structure, governments and organizations that provide funds and services can better track spending, detect fraud and unauthorized

use, and avoid bank transaction fees.[8] Further, expenditures can be directly audited, thereby reducing funds lost to corruption, and it can streamline government services that are typically plagued by "… overlap – or gaps – in the services they provide".[9]

In 2016, the **UN World Food Program** launched the Building Blocks blockchain in Jordan. An Ethereum-based private blockchain, this program has registered more than 100,000 Syrian refugees using biometric authentication that enables users to make cash transfers for food and other purchases using retina scans.[10] Saving the WFP up to $150,000 each month in bank fees,[11] the program is under expansion to cover all refugees with a digital ID wallet, fully accessible via smartphone, designed to improve refugee transnational mobility.[12] While placing total control over a person's digital ID in the hands of a government-operated, private blockchain questions the integrity of this project's decentralization, and its applicability beyond financial savings, it does prove the feasibility of the concept.

While there are a number of identity-based blockchains in development, the most notable is the **ID2020 Alliance**. A collaboration of public and private sector giants including Accenture, Microsoft, Hyperledger, The Rockefeller Foundation, UN Agencies and other leading non-profits,[13] the Alliance is committed to addressing the UN Sustainable Development Goals to provide a digital identity to more than a billion global citizens who don't have one.[14]

Other humanitarian applications of blockchain include De Beers' **TRACR** Blockchain, "setting the standard for diamond traceability" to combat the trade of "blood" or "conflict" diamonds used to fund vicious terrorist activities in Sierra Leone and around Africa;[15] the **Bloom Protocol**, a decentralized credit scoring system built upon Ethereum and IPFS designed to break-up the three agency credit cartel of Experian, Equifax and Transunion;[16] and **GiveTrack**, a Bitcoin donation platform that allows donors to donate bitcoin to charitable causes and track donations spending in real time, reducing opportunities for fraud.[17]

Returning to Roberto, our trusted Immokalee migrant worker, there are several ways in which the application of blockchain could have protected and aided him while he hauled 4,000 lbs. of tomatoes each day for a measly $62, ensuring us a continuing supply of cheap tomatoes. At a minimum, if Roberto had a Bitcoin ATM installed on-site or near his farm which utilized Know Your Customer standards he could meet, then he could exchange his payments for digital currencies which could be made immediately available to his family back in Guatemala at a fraction of the cost of Western Union, entirely avoiding the danger of accumulating large amounts of cash that make him a vulnerable target for robbery. Even better, if Roberto could register his identity and receive payments on the blockchain similar to the Syrian refugees in Jordan, then he could build an employment history complete with job training and a record of his financial transactions that could serve him worldwide. And while both of these ideas are great, the best solution would be to hold certain industries accountable, those with a history of utilizing illegal payments and labor methods similar to slavery, by requiring all of their financial transactions to be conducted on the blockchain, and therefore subject to complete and auditable transparency.

As the keepers of the law, it is our duty to ensure justice and liberty for all whom we can. While we may be too late to help Roberto, we are just in time to help other vulnerable people like him, an action which requires us to come together for the thoughtful application of blockchain to ensure its just application to create equality of opportunity for all whom it will.

Please share with me, what will you blockchain?

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[2] *Id*.

[3] *Id.*

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