



Volume 17 - Issue 2, 2017 - Cover Story

Finance Technology Blockchain in Healthcare IT Security



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Tech outfit Factorom has just won a Gates Foundation grant to develop Blockchain use in healthcare security. The company speaks about its potential.

Blockchain, the Bitcoin technology, has been taking the Healthcare Information Technology (HIT) world by storm because of its capabilities to offer impregnable security and tackle the hacking threat.

As part of its ongoing humanitarian efforts, The Bill & Melinda Gates Foundation has given a grant to Austin-based Blockchain technology company, Factorom, to develop the company's Blockchain projects in the developing world.

Factorom co-founder & CMO Tiana Laurence spoke to HealthManagement.org about this project.

Why does Blockchain hold so much potential as a tool in Electronic Health Records (EHR) security? Which stakeholders could be positively impacted (patients, medics, insurance, etc.)?

Blockchain software could be used to track and manage documents, and the data associated with them. This would make it easier to share information between service providers while keeping track of who has had access to what information and when. It could also be used to build software to maintain a clear medical history for patients that they could monitor, update, and share.

What is the track record for the Blockchain technology providing evidence of its reliability for security?

Blockchain technology is new but incorporates a lot of older security standards like the Secure Hash Algorithm 256 (SHA), developed by the United States National Security Agency (NSA). Each Blockchain will need to go through a security-hardening period.

Factorom has received a grant from the Gates Foundation to develop Blockchain technology in healthcare. Can you describe the project?

We are building a decentralised medical record management system that will help doctors, clinics, and patients manage their records in countries that do not have the EHR infrastructure.

See Also : [How Blockchain Can Make HIT More Secure](#)

Does Blockchain have the potential to save money for healthcare and, if so, how?

There is a lot of paper, redundant record keeping, and compliance requirements. These are all opportunities that Blockchain technology could be used to streamline.

In your opinion, what is the timeframe for rolling out the Blockchain technology in Healthcare?

Many Blockchain projects are going through testing. Gem, (gem.co/health), has been doing some interesting work. We will roll out something this summer, but it may be two or more years before we see software integrations in the public domain.

Are there any obstacles to Blockchain rollout and implementation in healthcare?

New systems need to have a ten-fold benefit over an incumbent technology. Beyond building the technology, there also need to be vast improvements over what is already in place.

Cybercriminals have been making headlines by hacking into Healthcare IT systems and compromising sensitive data. Why will Blockchain succeed in securing patient and other healthcare data when other processes and technologies have failed?

Blockchains enable as near permanent data as there has ever been. System administrators can create snap shots of their systems at a simple level. There are many more complicated things that can be done through Data Access Objects (DAO s), smart contracts and chaincode.

Can you tell us about any Healthcare Blockchain case studies that you have undertaken, or are currently involved in, and what they are indicating?

We have our project with The Gates Foundation and we are also working on a project securing Internet of Things (IoT) devices for the Department of Homeland Security. IoT devices are another source of vulnerability in the healthcare market.

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