Blockchain In Healthcare .

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Abstract :
Blockchain is the buzzword of the year, and as this new technology slowly matures, it seems clear that from banking to supply chain logistics, it is ready for disruption.
And in healthcare in particular, there is a massive opportunity for the blockchain revolution to disrupt and lead a digital transformation.
From medical records to pharmaceutical supply chain, to smart contracts for payment distribution, there are plenty of opportunities to leverage this technology.
Blockchain

BLOCKCHAIN TECHNOLOGY FUNDAMENTALS :

Blockchain is a distributed ledger of digital information "blocks."

In its purest form, blockchain would offer healthcare a decentralized, automated third-party system to transfer data freely and securely. Leveraged to its highest functionality, blockchain promises to optimize real data through its vast connectivity. From uncovering demographic trends, to making electronic health records (EHRs) more accessible to patients, blockchain has the potential to:

- Accelerate R&D
- Create more efficient care pathways
- Improve — and measure — patient outcomes

Current, disconnected systems restrict information from getting to the people who need it, when they need it most. With healthcare losing an estimated $300 billion a year in untapped data integration,[1] a solution is essential.

But the question now :
How Blockchain transforming health care ?!

Originally developed for cryptocurrency in 2008, blockchain allows a distributed network of computers to keep a tamper-proof digital ledger.
The technology, however, is useful whenever collaborating parties have competing interests that require a third-party guarantor. Large health care organizations have been remarkably quick to adopt blockchain.
In 2017, IBM reported that 16% of the 200 health care executives it surveyed from 16 countries anticipate a release of a commercial blockchain solution, and 90% of health care companies expect to launch a pilot blockchain project by 2018.
To date, blockchain in health care has mostly been used for audit trails and payments for value-based care. However, it has the potential to be used for much broader applications, especially given the rapid emergence of the internet of medical things (IoMT). Blockchain may soon allow smartwatches and smartphones to load clinical information directly to the clinical record.

Barriers To EHR Usability :
In the past, software developers in health care were limited by complex, heterogeneous security requirements. According to Canada Health Infoway requirements, the industry standard for electronic health records, EHRs must do three things: encrypt data transmitted over email, preserve personal health history and verify the identity of users. Unfortunately, it's clinicians who bear the brunt of consequences for this security-first EHR design. Existing EHR software is currently bought and constructed based on legislated standards. And it usually isn't tested *in situ* beforehand.
At least in part because of this, physicians report professional burnout from poorly constructed interfaces. Many have even retired early to avoid the stress of working with EHR.
Not only can a secure distributed ledger aid in medical billing via cryptocurrency, but it can be used to validate clinicians' credentials, control access to patients' records, secure the medical supply chain and verify clinical tests.
For example, in 2016, the U.S. Department of Health and Human Services held a contest for innovative ideas related to blockchain technology. The winning white paper, written by MIT's Project PharmOrchard, was about using blockchain to power clinical trials that utilize genomic data.

Blockchain In Clinical Photography :
As the CEO of ShareSmart, a company that focuses specifically on clinical photography, I've seen firsthand how blockchain offers two improvements for clinical photography software: smart contracts and better interface apps.

Smart contracts :

Smart contracts are data-sharing agreements between patients and care providers that are automatically enforced. Blockchain can put the patient at the center of the health care data ecosystem, enabling them to hold their own record and control providers' access to it. This may include having clinical photos and flexible control over who accesses them and in what context (e.g., diagnostic, research, before and after, academic, operative planning).

We will not talk anymore, wait for us in an upcoming explanatory presentation .

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