

Blockchain for Beginners



Do you know what blockchain is?

Everyone has heard of blockchain, but not many people understand what it really is – myself included. I went looking for an approachable introduction to the technology and found this excellent **Wired video** (posted below) that describes blockchain for five different levels of understanding:

- Five Year Old
- Pre-Teen
- College Student
- Grad Student
- Expert (at about 10 minutes in if you want to skip ahead)

I found that listening to each segment helped me grasp the concept and increase my understanding as the levels progressed.

What does blockchain have to do with healthcare?

Although I found varying degrees of optimism about the blockchain's ability to solve healthcare's interoperability problem, I did find a wishlist on **happiest minds blog** that highlights some of the most promising uses for the technology.

Features of a “Health Wallet” Owned By Patients*

1. Block Chain contains the complete health and billing

history of the patient

2. The transaction is updated into the Block Chain only when there is consensus between the parties involved, and there is no option to update a previously written record
3. Patients permit the stakeholder to access the historical data, which is always in read-only mode; Patients will always know who had access to their data.

Benefits of a “Health Wallet” Owned by Patients*

1. Comprehensive and trusted view of the Patient record
2. Could avoid any new integration system to be created to communicate to different systems
3. Administrative task and claims can be made easier

*Parents, Families, Caregivers, Guardians

Other possibilities suggested by posts on **HealthITAnalytics**:

Diagnosis Mistakes

“...The patient could be put in complete control of who accesses the record and who can make changes. The patient could monitor the accuracy of edits such as new diagnoses, or even limit which providers are allowed to access sensitive information such as mental health data.”

Access to Sensitive Information

“Patients could receive automated notifications when a party asks permission to access a certain piece of data or requests a change, giving individuals more control over how, when, and for what purpose their data is shared.”

Universal Credentialing Relief

“Blockchain would allow a provider to make his or her current certificate of attestation of licensure available on the blockchain, where organizations can query for the data and ensure that it is trustworthy and up to date.”

Care Coordination

“...Chilmark Research envisions that blockchain could improve care coordination by connecting patient data across multiple providers, or simplify the process of revenue cycle management by strengthening bonds within provider networks, streamlining the eligibility verification process, and automating claims adjudication.”

Medication Mistakes and Prescription Fraud

“If one provider writes a prescription that is identical to the recommendations of another clinician, the blockchain could flag the duplication and prevent the patient from doubling up on the same medication.”