**IPHI (Immutable Personal Healthcare Information)**

This topic discuss the evolution of blockchain technology and how its application can produce breakthrough in healthcare industry.

The basic idea behind this is to develop one system which transmit patient’s data across geographies without compromising its privacy and security. A system built on distributed architecture, blockchain doesn’t require multiple level of authentication and at the same time gives complete, on demand access to chronologically arranged data.

One of the most important aspects of a healthcare system is the way its data is shared cross entities in value chain. Blockchain supports seamless information sharing that can eliminate duplication, errors and inconsistencies that can arise with traditional, centralized data storage. The smart contract application eliminates the need for intermediaries to manage and execute the patient contracts.

Blockchain can help put patients in charge of their own data, and it can enable physicians at different institutions to access that data for better diagnosis and medical interventions.

We are going to develop a system like ledger that lists all the information about the patient or his medical history and that ledger is public and accessible for doctors, nurses, pharmacists, scientists this allows us to access the data only upon consent given by the patient.

Initially, health care providers will collect information about the patient. This information will get stored on blockchain using hash functions. The patient decides who can access to his medical records.When a doctor asks for permission to access the information of patient, if he gives consent the smart contract automatically allows the doctors to see the results.

At the last this system is patient centered because the patient owns his medical records. Patient cannot just go and modify everything and delete but he can decide who has access to the information. Blockchain can also act like a catalog that lists all the medical records of the patient and all his medical history so that when next time patient again go to the doctor instead of doing all tests again doctor can go through his previous medical history that reduces the cost as well as time.

Another scenario is if a doctor prescribes some medicines to patient for some days then these prescriptions must be stored in encrypted format. Whenever patient goes to medical store to buy the medicines the pharmacist uses the public key of patient to see the prescription but this contains a QR code, when pharmacist scans this QR he get a list of medicines along with the duration as doctor prescribed. So no one can take medicines for more duration than prescribed before.