

# APPLICATION OF BLOCKCHAIN TO MEDICAL DATA

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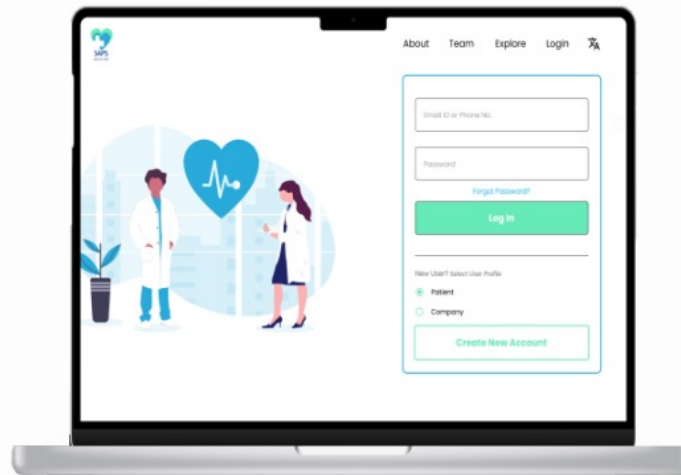
## ABSTRACT

Healthcare providers routinely collect and anonymize medical data for the purpose of selling it to corporations through direct or indirect monetization. Patients generally remain unaware of this, and do not get a share of the profits generated from their medical data. SAPS Health is a blockchain based medical data platform that disrupts that by letting patients upload, trace, and sell their medical data. On the other side, healthcare companies like pharmaceuticals and medical technology companies can filter, select, and purchase medical data from our online marketplace. By doing so, SAPS makes the process transparent, secure, and fair along with generating structured data for medical research.

## MOTIVATION

Medical data sharing is rife with problems such as lack of accessibility, security & privacy breaches, monetization without informed consent & poor quality of data. Generally, healthcare providers collect, anonymize, and then sell patient data to corporations. In this context, the patient is unaware of where their anonymized data ends up and does not get a share of the profits generated. However, there have also been incidents where medical data has been shared without deidentification. Examples of this would be of a feminine healthcare app, Ovia, and Google's and Aspen Health's Project Nightingale. Both collected intimate patient data and shared it with others without consent.

## RESULTS



The use of blockchain enables the patient to trace their records while sharing and being compensated for it. Blockchain-based traceability means that the data can be secured against breaches. Presence of a distributed ledger network protects hacking and related data leak. Being able to sell records helps patients not only get compensated for their contribution but also enables them to contribute towards medical research. As a result, structured and verified medical data is made available for use by pharmaceutical and medical device companies. SAPS acts as a one stop shop for all data related needs of medical research companies. They can contact patients if they consent. In this way, SAPS brings sellers and buyers closer by eliminating third parties in the process. In the long run, this acts a complete online data storage platform for patients.

## REFERENCES

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