When you should never use blockchain technology?

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So much has been talked about concerning blockchain technology. It appears it is the tech buzzword for now. Remember the days when everyone was saying "big data". Sometime in 2017, big data was the trending tech subject and many organisations were diving into the hype. Fast forward to 2020, almost every self-respecting organisation has some form of big data architecture or system in place, be it collecting and storing data or having a team of data scientists and analysts. Blockchain has become that buzzword now and quite several organisations are still ruminating on how to enter into the world of blockchain. Despite the hype, it is important to investigate how blockchain will bring value to your organisation. Blockchain will not solve all your problems. Here is when you should never use blockchain technology. In a paper titled, A Critical Review of Blockchain and Its Current Applications, the authors conclude, "blockchain is not a universal cure for all problems and there are several issues that have been identified such as financial transaction for criminal activities, legal aspects, and other economic risks."

When speed is of importance?

Blockchain requires huge amounts of computing power. As for digital transactions, it is widely known that centralised databases, relational databases are much faster in processing millions of transactions in the shortest possible time. If speed is of essence you are better off the blockchain. Centralised databases are more likely to be a cheaper way of processing and storing information.

When customisation is needed?

One of the features blockchain technology takes pride in is its immutability feature. No one can change records. With the use of smart contracts once a contract is put on the blockchain it is difficult to change. Smart transactions enable organisations to reach agreement even when there is a lack of trust. This is very useful in situations where there is no constant updates and customisation required for contracts. In cases when transactions between two or more parties have to be highly customized and are constantly changing, creating a smart contract for every possible transaction becomes too much of a hassle. As a result, a blockchain solution would not be advisable.

When security is of the essence?

There are very disturbing stories that have made the headlines of how people lost their cryptocurrencies on the blockchain. Blockchain technology is fairly new and its applications are more complicated to develop. I will refer to three articles which will halt anyone's intentions of rushing into the blockchain. News.bitcoin.com reports that bad code has lost $500 Million of Cryptocurrency in Under a Year. That is quite a lump sum to just disappear into thin air. Some researched from the UK and Singapore reported

that about 34 000 Ethereum smart contracts may be vulnerable to exploitation. Some of these articles give one every reason to be sceptical concerning the saying that blockchain is hacker-proof. An article posted on the hackernoon.com website shows how a "kid just deleted $300 MILLION by messing around with Ethereum's smart contracts."

When confidentiality is paramount?

Blockchain only works when multiple organizations need to work together to achieve a common goal. When transactions need to take place within one organization, not involving any external stakeholders, blockchain is not the solution. Blockchains are, by their very nature, open chains of information. So anytime confidentiality is a key consideration, a private database is the better option.

There is no doubt blockchain is a fundamental technology with great promise. However, organisations need to scrutinise first what value they stand to get from implementing blockchain technology and also consider all the risks involved because there are scenarios when a blockchain is never an option.

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