Positive And Negative Effects Of Blockchain Technology

The Effects of Blockchain Technology

Positive Effects:

Maintaining Cybersecurity: Data used in blockchain is encrypted using cryptography, making the data inaccessible to an unauthorized personnel. Centralized servers can be very susceptible to data loss, corruption, human error and hacking. Just look at the many hacks we've seen in the past few years with Target, Verizon, Deloitte and Equifax. By using a blockchain decentralized, distributed system would allow data storage in the cloud to be more protected.

Banking and Payments: Exchanging money through blockchain is not only faster but also more secure. As a result, a lot of banks and other monetary organizations have already started to adopt to blockchain technology to improve their transactions.

Using Internet Connected Devices: At present, a lot of devices that we use in our daily life, like cars, buildings, doorbells and even refrigerators are linked to a central to a central controlling unit via internet. One can access all these devices if he has access to the central controlling unit. As a result, by hacking this center controller, the hacker can control all of these devices. According to Kamil Przeorski, an expert in Bitcoin and Ethereum capabilities, Blockchain has the potential to address these critical security concerns because it decentralizes all of the information and data.

The Relation Between the Government and General People: Transparency between the government and the people can be improved through blockchain technology. With blockchain, we could reduce bureaucracy and increase security, efficiency and transparency. Welfare and unemployment benefits could also be more easily verified and distributed and votes could be counted and verified for legitimacy.

Transparency in donation to charities: When people donate money to a charity, the donators usually have no idea how much money actually is provided to the charity. Blockchain can ensure exactly where the money need to go. Bitcoin-based charities are already creating trust through smart contracts and online reputation systems and allowing donors to see where their donations go through a secure and transparent ledger. The United Nations' World Food Programme is currently implementing blockchain technology to allow refugees to purchase food by using Iris scans instead of vouchers, cash or credit cards.

Secure Healthcare: It is better if we store our medical information in a central database. But centralization of such sensitive information is risky. So we need a secure platform that can keep away unauthorized personnel. With the help of blockchain, hospitals and other healthcare organizations can create a secure central database, that can only be accessible to authorized doctors and healthcare organizations.

Rentals and Ride-sharing: Uber and Airbnb may seem like decentralized networks, but the platform owners are in complete control of the network and naturally take a fee for their service.

Blockchain can create decentralized peer-to-peer ride-sharing apps and can allow car owners to auto pay for things like parking, tolls and fuel.

Decreasing Identity Theft: Identity theft has been rife for years and has cost people an enormous amount of money, leading to concerns over how to secure our personal information when stored in government databases. An encrypted database that houses all of the information necessary to prove identification on a decentralized ledger would be invaluable as the move from paper to digital continues.

Negative Effects:

Environmental Cost:

Blockchain is based on encryption, in order to maintain security. As a result, it requires a lot of algorithm, hence computing hardware so that the rightful users can access the technology. A lot of computing hardware consumes a lot of energy. It was claimed that for running the bitcoin network, the amount of energy consumption was as much as the total power consumption of 159 countries. Because of bitcoin, the price of a lot of computer hardware for example, video cards, went sky high.

Smaller scale blockchains consume less power, but still the environmental cost of blockchain as a whole is not negligible in any way.

So-called Private Blockchains

When first confronted by the reality that Bitcoin is here to stay and kill many of them, banks reacted like cornered perp, denying everything. Today banks and financial institutions seem to agree with the Bitcoin community that the technology behind Bitcoin can provide an efficient platform for settlement and for issuing digital assets. Curiously, though, they shy away from Bitcoin itself. Instead, they want something they have control over and doesn’t require exposing transactions publicly. As a result, the buzz in the financial industry is about “private blockchains.”

The problem is that blockchain is specifically designed to obviate private firms. The blockchain is and will be a purely C2C thing; the idea of a “blockchain company” or 'private blockchain' is nonsense. Bitcoin is not just a protocol or money; it is a new business model for open source software. For instance, before Bitcoin, you had to raise funds, write software, build a business model, distribute your product, and work towards liquidity. Angels, VCs, salespeople, and bankers guided you the entire way, through a maze of controls. The Bitcoin model for crowdfunding dispenses with everything except the public presentation and software. Industry refusal to acknowledge this point has resulted in multiple misunderstandings, which have persisted for a variety of reasons.

Qualities Wrongfully Assigned

Immutability, un-hackability and other maximalists buzzwords that magically transform simple databases into the next VC fundraise, slow down the correct understanding and, therefore, adoption of the technology. Immutability, for example, existed in closed systems, through the benevolence of a custodian. Now, as the thinking goes, such immutability is simply a magical

property of blockchains. The marketing literature in the industry would make its readers believe that because folders (whereby data is syndicated to all peers participating in the network) are crypto-signed, somehow they are required to be kept by all peers after that.

However, efforts are consistently being made by the Bitcoin Core team to reduce storage requirements. The reason is that this feature is inordinately expensive. Mobile clients don't have the disk space needed. As a network grows, the bandwidth requirements become significant, and the response times that deal with having to track system state grow similarly. So, how exactly does one force immutability in their blockchain? Either by actively paying for it, or conversely, by incurring cost-based risks in the network consensus for those that don't store your data.

So, Bitcoin blockchain immutability is not free, nor it is reasonably costly. It's expensive. For non-bitcoin systems, these problems are even more compounded. Purchasers of blockchain systems should ask basic questions about how and why their competing institutions will store their data, as it's becoming increasingly certain that should any of these systems achieve scale, the promise of immutability will quickly be broken.

Imprudent Expectations

While promises of magic features may financially punish wealthy VCs mostly, and not necessarily now but in the future, common misconceptions about integrability of blockchain make thousands of ordinary startupers lose money and suffer today. Bitcoin is - by the essential design - a thing in itself. Even if smartly incorporated into a complete service cycle, Bitcoin doesn’t make things automatically cheaper.

For remittance, for example, it’s hard to argue with the numbers generated by real-world use, and they tell us that the first/last miles and the advertisement are where all the costs are. The costs of a Bitcoin-powered remittance and that of a transaction powered by any traditional provider are markedly similar because the local currency needs to flow through the same physical channels.

Thus, Bitcoin only makes starting a remittance business cheaper: instead of advancing vast reserves to each location that you want to do business in, you settle each transaction in real-time with Bitcoin; from a cost perspective, it’s the difference between building a massive server farm versus pay-as-you-go hosting on Amazon.

So, what applications the blockchain technology is great for?

A useful analogy is that of the Internet in the early nineties. Understanding 'Internet tech' at the time was considered understanding how the underlying protocols work, how packets propagate across the network, etc. This understanding, however, was completely unnecessary to start building killer applications that we have today (e.g. Amazon, YouTube, Facebook, Uber). Back in 1992. The founders of mentioned services have gotten into the core of things quite late, haven't they? Similarly with 'blockchain tech' right now. It is useful to understand the technical details behind how things work (consensus algorithms, cryptography, etc.) but trying to build business models without wasting time on learning too much technology is essential.