

The next innovation: on Blockchain

Blockchain could be the least elucidated among the disruptive technologies rapidly transforming the world around us. It is widely known that some of the most valuable companies of our times, such as Uber and Airbnb, are effective aggregators of resources, including cars and apartments. They are using the Internet to reach out, and match the supply and demand in a global market.

Although the architecture of the blockchain is far more complex than these aggregators, the underlying principle is not that different. It can be described as a way for people to share the extra space and computational power in their computers to create a global super-computer that is accessible to everyone. The blockchain lets people who are part of this super-computer perform functions such as verification of transactions and contracts, and the updating and maintenance of these records in the form of trustworthy ledgers, tasks that are normally reserved for established intermediary organisations such as banks and legal firms, and be rewarded for it. This core feature of the blockchain creates a space for trusted transactions in the digital space that have never been possible before.

Nasscom, BRI to promote blockchain

The **cryptocurrency Bitcoin** is the first successful application of this technology. Even though there are mixed standpoints regarding the credibility, scalability and practicality of digital currencies, the core technology behind them, blockchain, undoubtedly has tremendous value. Annual global economic output is over \$90 trillion, with almost 3% of the amount going to various financial toll collectors such as banks, and credit card platforms.

Blockchain technology could drastically cut down, or even eliminate, these transaction charges by replacing the intermediaries, thereby creating hundreds of billions, or even trillions, of yearly savings. This is a significant amount that could be used for other economically and socially productive purposes.

Understanding this cost-saving potential, several international banks and state-owned banks in Russia, Saudi Arabia and the UAE have started working on blockchain-powered financial solutions. The Indian government and Finance Ministry's lackadaisical approach towards this technology could make our banks less competitive in the long run, when compared to their international counterparts.

Experts caution against blockchain technology

Blockchain applications could be further extended to sectors such as insurance, law, real estate and digital art, and could be used to further strengthen our national institutions, including the judiciary and the Election Commission. Critical citizen information like land records, census data, birth and death records, business licenses, criminal records, intellectual property registry, electoral rolls could all be maintained as blockchain-powered, tamper-proof public ledgers, and be verified, or updated in real time, with utmost security, thereby generating inconceivable improvements in efficiency, transparency and time savings.

The potential of blockchain to bring about substantial economic transformation is the mirror image of the way the Internet revolutionised commerce, media and advertising in the previous decade. India should effectively channel its technical human capital surplus to position itself as one of the pioneers during this upcoming wave of innovation.

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