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New Trends in Humanitarian Assistance

Blockchain for Humanitarian Aid: Problem or Panacea?

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Synopsis

A notable development in the Fourth Industrial Revolution is blockchain technology. Originally created as an alternative means of financial transfer, the technology can be applied to any type of information and asset. Organisations and countries are starting to explore ways of using it in the context of humanitarian aid. Is this a panacea or a problem?

Commentary

THE BLOCKCHAIN operates on a distributed database hosted across a network of multiple participants. Data – which can include financial transactions, personal information, supply manifests – is recorded on a digital ledger, which everyone within a designated network can access.

More importantly, this process occurs without the presence of a central authority or an intermediary; this removes some of the risks associated with the centralised control of data. Since the network reflects every change made on the blockchain, it is impossible for anyone to falsify any transaction without leaving a trace. This ensures traceability, transparency and security of the data.

Disrupting Current Aid Model?

The urgency to move cash during times of humanitarian crises makes it susceptible to mismanagement and corruption. This is an area where the blockchain could potentially make a big difference in.

In 2017, the United Nations World Food Program (WFP) successfully trialled its Building Blocks initiative in Pakistan and Jordan. With a scan of their irises using the UN refugee agency UNHCR's patented biometric identification system, Syrian refugees were able to purchase food from local shops.

These transactions were then authenticated and recorded on the Ethereum blockchain, which is a type of blockchain made accessible via a smartphone app. As a result, the WFP was able to disburse food and cash assistance more efficiently and quickly to a vulnerable population and in the process removed the need for physical money or food vouchers.

Another way in which blockchain could be used for humanitarian causes is by facilitating documented proof of identity for refugees.

ID2020, a public-private partnership that endeavours to empower individuals by increasing access to digital identity, recently unveiled an identity management system that captures and stores biometric data on a blockchain. This enables undocumented and stateless populations to have personal identity records that are stored on a decentralised system, thus ensuring their immutability.

The hype surrounding the technology is gaining traction. The United Nations Children's Fund (UNICEF) is already investing in early-stage blockchain startups to explore possible applications of the technology for humanitarian causes.

A collaboration between The United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) and the Digital Humanitarian Network produced a paper titled 'Blockchain for the Humanitarian Sector: Future Opportunities', which outlined some of the benefits and challenges of the technology and some areas within the humanitarian sector where it could be applied. Evidently, there is much interest in the use of blockchain for tangible humanitarian action.

Constraints + Paradoxes = An Unworthy Endeavour?

Despite the immense potential of blockchain technology, there are still many issues surrounding its use in a humanitarian setting. As a relatively new technology, it is difficult to assess the appropriateness of its usage when many of its applications are still untested. For instance, as a predominantly Internet-driven initiative, there are challenges in implementing it in areas with less than adequate critical internet infrastructure.

An obdurate commitment to test the technology in these settings might result in a 'second disaster'. This traditionally refers to well-intended, unneeded donations that hamper overall relief efforts; in this case, it would refer to the inefficiency of relief efforts brought about by the use of inappropriate, untested technology.

Moreover, if humanitarians are too quick to use blockchain technology without first educating the affected populations on its characteristics, these populations might not fully grasp the control that they are supposed to have in their interactions with the technology.

The issue of governance and data protection also comes to the fore. The lack of a regulatory environment makes the use of the technology a minefield of legal and ethical problems. How do you ensure that the sensitive information of disenfranchised populations do not fall into the wrong hands?

What happens when transgressions occur in an unregulated space? For example, in the case of populations threatened by ethnic violence, this data could be used to enact further persecution if the blockchain network is compromised.

While the blockchain purports to be a secure means of transferring and storing data, there have nevertheless been instances of blockchain networks being hacked. In the case of a potential breach, the decentralised nature inadvertently becomes anathema to jurisdictional issues and accountability.

Downside of Decentralisation

The decentralised nature of blockchain precludes regulation. However, the presence of vulnerable populations in the equation increases the stakes of any potential fallout. Regulatory frameworks and legal standards would traditionally be the bulwark against such transgressions, but that goes against everything the blockchain stands for.

This creates a situation where it is difficult to reconcile the key tenets of blockchain technology with the need to protect vulnerable populations.

The humanitarian sector has a duty of care to their beneficiaries and donors to comprehensively assess the benefits and limitations of blockchain technology, before taking the plunge into this new territory.

Moreover, investment in blockchain technology will incur huge economic outlays. In a sector which is already competing for a limited pool of resources, it might not be prudent to pursue an endeavour that has so far proven, some say, to be more hype than substance.

Future Directions

Research into blockchain technology could be undertaken, but humanitarians should not be the ones driving this. It should be outsourced. To this end, humanitarian actors can tap on private sector expertise.

The ID2020 initiative is an example of how the public and private sectors can work together to ensure that blockchain technology development and implementation are informed by the needs of the affected populations. Even then, it is essential to institutionalise an understanding that blockchain technology be used only for the benefit of affected populations, and should not be implemented by private corporations and organisations solely for economic gains.

Partnerships between technology companies and humanitarian organisations should operate around this common understanding.

Blockchain could well be the next major disruptive technology, and its potential applications in the humanitarian setting should not be dismissed. However, humanitarians should not be too quick to succumb to the neophilia - the tendency to like anything new - surrounding blockchain technology.

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