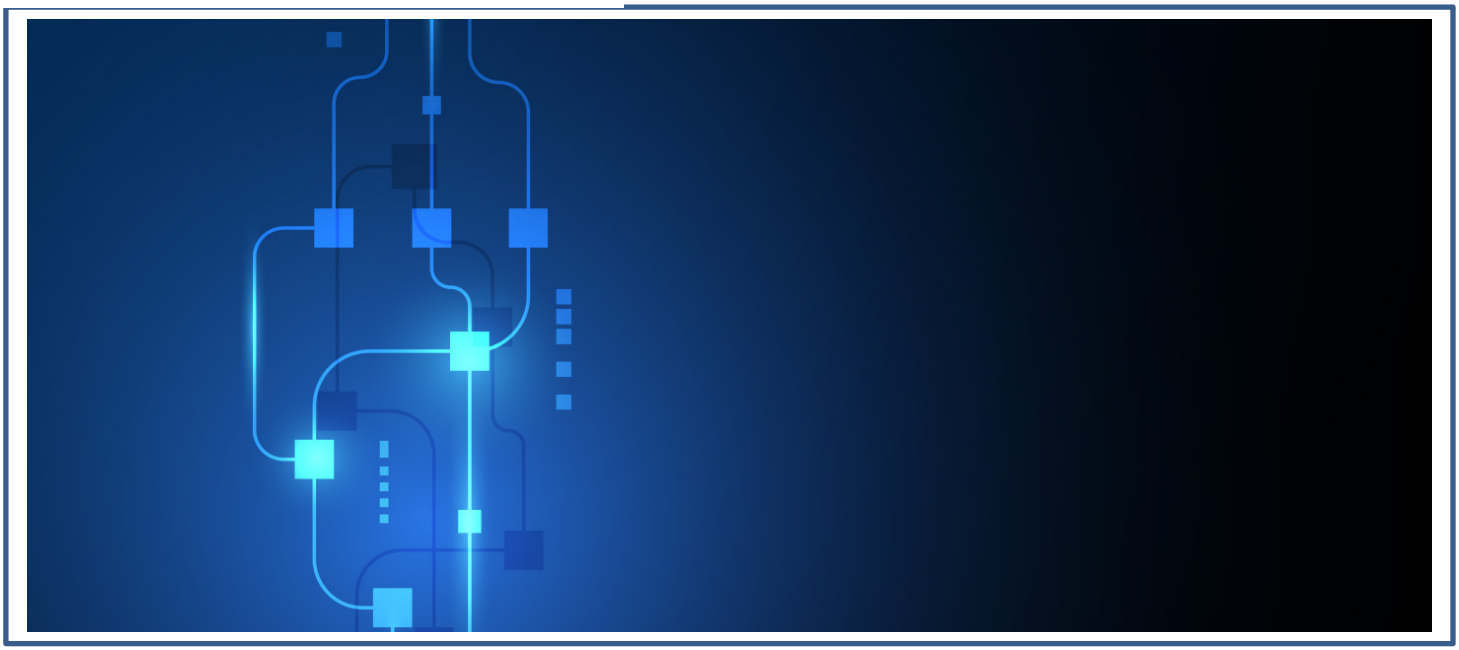
TOMORROW'S CHALLENGES



COULD BLOCKCHAIN REVOLUTIONIZE PHILANTHROPY?

INNOVATIVE GIVING AND INNOVATIVE TAKING

By IMD Professor Peter Vogel and Malgorzata Kurak

IMD
Chemin de Bellerive 23
PO Box 915,
CH-1001 Lausanne
Switzerland

Tel: +41 21 618 01 11
Fax: +41 21 618 07 07
info@imd.org
www.imd.org

Blockchain is one of the most hyped technologies of the 21st century. Blockchain enthusiasts predict that within the next couple of years the technology will entirely disrupt the world we live in, including the world of philanthropy. However, philanthropists and many other involved stakeholders have developed unrealistic expectations about how blockchain can rejuvenate the third sector. What is clear is that the key benefit of blockchain for philanthropy is that it enables more transparency and accountability and can therefore provide the "proof of impact" for goals achieved.

Despite its promising qualities, blockchain is still a young technology and its application brings with it a number of challenges. Blockchain is believed to have an overextended ability to provide trust, but many stakeholders do not entirely understand how the complicated algorithms behind it really work. Blockchain sceptics argue that any wrong data or incorrect metrics introduced could create meaningless chains.

As researchers interested in philanthropy, we wanted to know whether we could benefit charitable organizations, donors and recipients.

Here are the benefits and drawbacks:

For givers

Transactions at a higher speed and lower cost

Blockchain facilitates an exchange of value at a higher speed and lower cost between peers, while eliminating the need for trusted intermediaries. Because every transaction executed on blockchain is recorded in near real-time and is available to everyone, blockchain can help to significantly decrease the cost of annual reporting on a charitable organization's budget and spending, while increasing its overall transparency. Transactions performed on blockchain can reach recipients faster and at a lower cost than if performed via other transaction methods because all crypto transactions are posted immediately. Furthermore, there are no daily limits on crypto transactions and their costs are calculated based on factors such as transaction size, number of other transactions made at the same time, or the computational complexity of a smart contract.

Highly visible and traceable transactions

One of blockchain's most attractive features for the philanthropists is that it enables highly visible and traceable transactions, allowing givers to track all their transactions from the beginning to the end and verify where their funds went. By monitoring the entire sequence of transactions, givers can easily find out whether their funds reached their intended target. Well-documented and tracked transactions enable givers to make better-informed decisions when choosing between various charitable organizations for their future donations.

Overrated ability to provide trust

A common notion is that, due to its immutable nature, blockchain can redefine trust. Since the system itself verifies all transactions, the assumption is that users do not need a trusted central authority. Instead, blockchain users need to trust many distributed and anonymous participants (i.e. global miners). In practice, this means that blockchain has no central

governing body or auditor that would take responsibility for the system's failure if needed. Furthermore, blockchain immutability is inordinately expensive. As blockchain networks grow, technical and storage requirements become more demanding, and transaction fees and response times needed to transact via blockchain platforms may increase.

High energy consumption and collateral damage

Many givers are preoccupied by the thought that their genuine intentions to help people in need could, at the same time, have some negative (and mostly unpredictable) consequences on their lives. Because Bitcoin and other cryptocurrencies store every transaction from their inception, this technology can help givers verify whether their funds were spent in line with their intentions. But the price of such monitoring power is a high carbon footprint. The crypto-mining process is a massive consumer of energy.

The extended debate over this issue has, however, led to the conclusion that Bitcoin's biggest problem is not its massive energy consumption, but that its network is mostly supported by coal-fired power plants (i. e. between 2014 and 2017, about 90% of global Bitcoin trading happened through Chinese trading platforms). Indeed, other existing methods like wind energy, geothermal and hydropower energy could provide renewable energy to sustain the mining process. But these alternative methods are mostly being explored in only a few geographical areas, such as Europe and the Pacific Northwest.

For beneficiaries

More money, faster and increased security

One of the key benefits of blockchain for the recipients of money is that they receive more money than they would have otherwise. There are a number of reasons for this. The primary reason is that expensive transfer mechanisms are bypassed, which allows donors to send more money directly to the recipients. However, it also prevents fraudulent intermediaries from pocketing part of the money that was meant for the recipient. Ultimately, it increases the pressure on charities to operate more effectively and efficiently and therefore channel the maximum amount possible directly to the recipient.

Uncertainty and cyber-crime

With increasing volumes of transactions running through crypto exchanges and other applications on blockchain, tracing where the money is going will become harder. This can therefore make cryptocurrencies attractive to more criminals as a means of committing crime. They may use blockchain for tax evasion or ransomware and illegal marketplaces to sell anything, including drugs, fake passports and firearms, etc.

Fortunately, it is becoming increasingly challenging to participate in the major blockchains and exchange cryptocurrencies without undergoing a know- your-customer (KYC) process with a crypto exchange. This often includes uploading a government-issued ID and a photo of oneself holding the same ID, as well as a phone number and address verification in many cases.

What adds to the uncertainty for the recipients is the ambiguous regulatory environment surrounding the technology. The lack of clear legal protection could be harmful for blockchain recipients of donations in the long term. The blockchain's immutable nature

would store indefinitely the fact that they once relied on financial aid, for example. If the recipients' identities were ever disclosed, it might have unpredictable social consequences on their lives. Small or rural communities could in theory punish recipients if they were not deemed by their peers to have needed government assistance.

Although we would be wise not to get too swept away by the hype, NGOs and philanthropists should begin learning more about blockchain's unique capabilities and help shape the field.

Breakthrough technologies such as blockchain, the Internet of Things (IoT) and artificial intelligence (AI), alone or in combination, might provide novel and unconventional solutions to the major social challenges of the 21st century.

Yet it is still an open question as to whether the use of blockchain (and other technologies) in philanthropy is desirable, feasible and viable, and whether existing and proven technologies are – if implemented rigorously – sufficient and can improve the state of philanthropy and in turn resolve some of societies major problems.

Peter Vogel is IMD Professor of Family Business and Entrepreneurship and holder of the Debiopharm Chair for Family Philanthropy.

Malgorzata Kurak is Research Fellow – Debiopharm Chair for Family Philanthropy.