Eight Ways Charities are Cashing in on Cryptocurrencies

By eXeBlock Technology Corp. (CSE : XBLK)

A NOTE FROM THE AUTHORS

The objective of this paper is to provide an introduction to cryptocurrencies and blockchains for charity professionals, and to give an overview of how non-profit organizations are benefitting from these new technologies.

It is authored by eXeBlock Technology Corp. (CSE : XBLK), the world's first public company to create a tool for non-profits to engage with cryptocurrency donors, the 5050Labs fundraising DApp. As a first mover in this field, eXeBlock has a unique opportunity to work with charities to help them connect with the cryptocurrency generation.

Organizations, teams and charities can now expand the reach of the traditional 50/50 raffle to engage with a wider audience. Users can easily download the app, buy tickets and monitor the progress of the draw. The winning ticket is chosen by a random number generator, and the proceeds are split between the winner and the sponsor by our smart contracts. 5050Labs harnesses the security, simplicity and transparency of blockchain technology, bringing your fundraising campaigns to a whole new generation of donors.
www.5050labs.com

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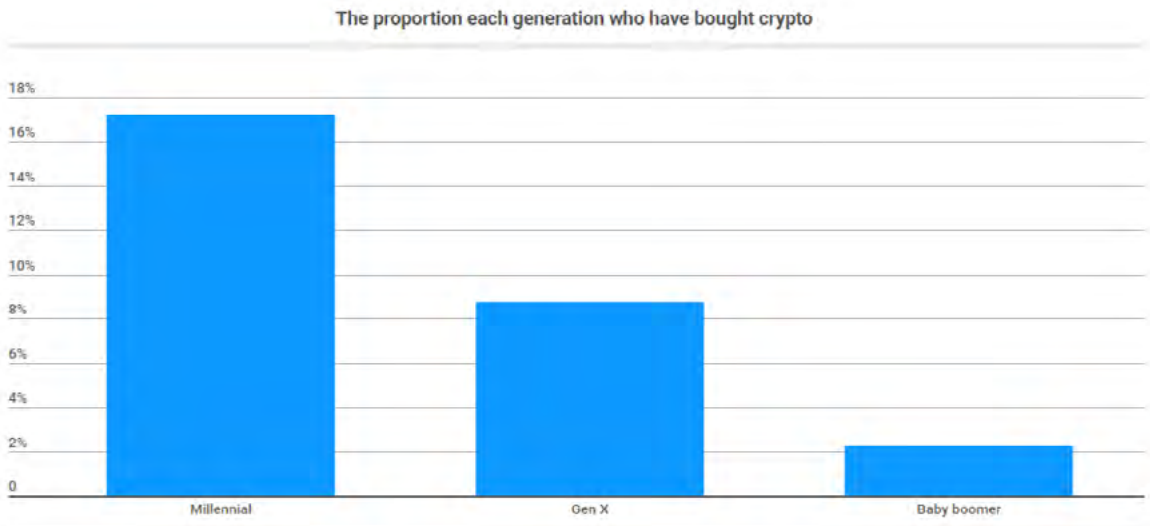
INTRODUCTION

Cryptocurrencies are everywhere, and yet nowhere. You can't see them or touch them, and yet the airwaves are full of stories of bitcoin billionaires and blockchain breakthroughs. Some experts call it the largest bubble in human history, others say it is a disruptive force that will reshape our lives, much like the invention of the internet. As with any great economic boom, fortunes are changing hands at breakneck pace, and it is hard for outsiders to understand what all the fuss is about.

Cryptocurrency holders are an appealing demographic for charities. According to **Fortune**, 71% of bitcoin owners in the US are males, and the majority are between the ages of 18 and 34. Interestingly, over half of them identify as a minority. Most bought bitcoin because they saw it as an investment that would grow over time rather than a currency.

Finder.com commissioned a survey of 2,001 American adults in February 2018, in which only 7.95% of respondents reported actually having purchased a cryptocurrency. When broken down by age, the survey found 17.2% of millennials reported owning crypto, more than twice the national average rate. In contrast, only 2.2% of baby boomers responded positively.



Of the 92% of Americans who didn't yet own cryptocurrency, 7.76% said they planned to purchase one in the future.

Cryptocurrency	Proportion of people who own this currency	Average amount people have purchased in USD
Bitcoin	5.15%	$3,453.89
Bitcoin Cash	0.90%	$636.22
Cardano	0.45%	$84.22
Ethereum	1.80%	$1,243.42
Ripple	0.85%	$299.06
Stellar Lumens	0.40%	$151.38
Other	0.75%	$388.33

Source: finder.com

Despite the fluctuating value of cryptocurrencies, their use among the broader population is growing exponentially. In November 2017, Coinbase, the largest US bitcoin exchange, **reported** that it had registered 13.3 million accounts, handily surpassing the 2nd largest stock brokerage, Charles Schwab. The plunge in crypto prices since then isn't dampening enthusiasm; as of March 2018, Coinbase has grown over 50% to 20 million customers.

Given the rapid growth of cryptocurrency participation among individuals, we at eXeBlock believe it is time for the non-profit sector to take notice. According to the **2018 Global NGO Technology Report**, while 72% of the 5,352 NGOs surveyed accept website donations, only 1% accept bitcoin, and only 3% have a digital wallet. Early adopters of cryptocurrencies will gain an advantage in a fundraising landscape that is increasingly competing for new donors. As the number of registered charities increases, so does the cost of fundraising, and as a result the need for new engagement tools is greater than ever. With so many worthy causes competing for donors, it is easy for a fundraising campaign to get lost in the noise.

WHAT IS BLOCKCHAIN?

Blockchain is a successfully tested solution for resilient verified data. Blockchain has and will fundamentally change how we use and protect information. The internet is evolving into a new era, harnessing the technology and networks built over the last 35 years. Blockchain will re-define this new structure.

Blockchain uses a decentralized system where information is stored in multiple locations using digital ledgers, called nodes. These nodes are constantly in contact with each other to assure that all copies of the ledger are correct. Blockchain networks use a consensus algorithm, which allows the peer-to-peer network of nodes to verify that new information is validated before it is added to the shared ledger.

Think of each block as a page in a ledger book. New transactions are recorded on the page, and before the page is added it must be validated by the network. Every block in the chain carries a unique identifying code that is derived from its content and all blocks that came before it. If the content is altered, then the unique codes will no longer match, and the network will reject the new block. Thus, when a new block is added, it cannot be altered, eliminating the possibility of compromised data within a blockchain structure.

At a high level, blockchain technology replaces the concept of trust with mathematical proof. This innovation has led to the rise of cryptocurrencies such as bitcoin, that allow for global transactions without traditional intermediaries such as banks or payment providers.

STRENGTHS - Tamper Proof Record, Immutable, Transparent, Disintermediation, Smart Contracts

WEAKNESSES - High latency, volatile prices, scalability limited in some chains

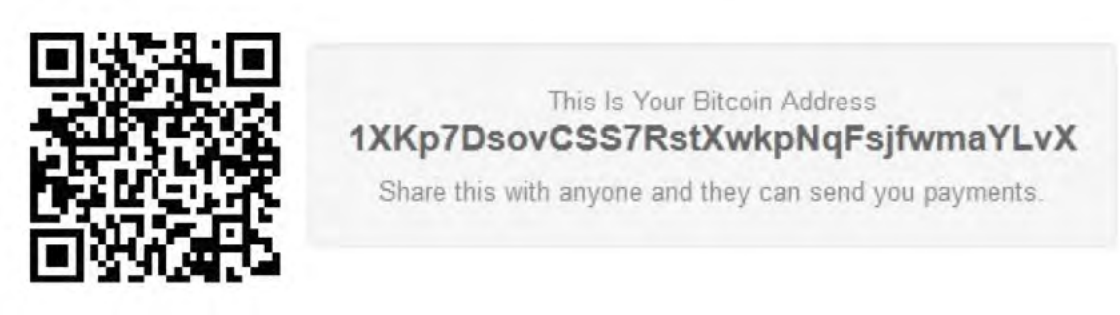
OPPORTUNITIES - Global reach, trust, wealth creation, generational demographics, new fundraising tools

THREATS - Charities with low efficiency can be replaced, dark web, hacks

THE EIGHT WAYS CHARITIES ARE CASHING IN ON CRYPTO

1. DIRECT GIVING FROM INDIVIDUALS

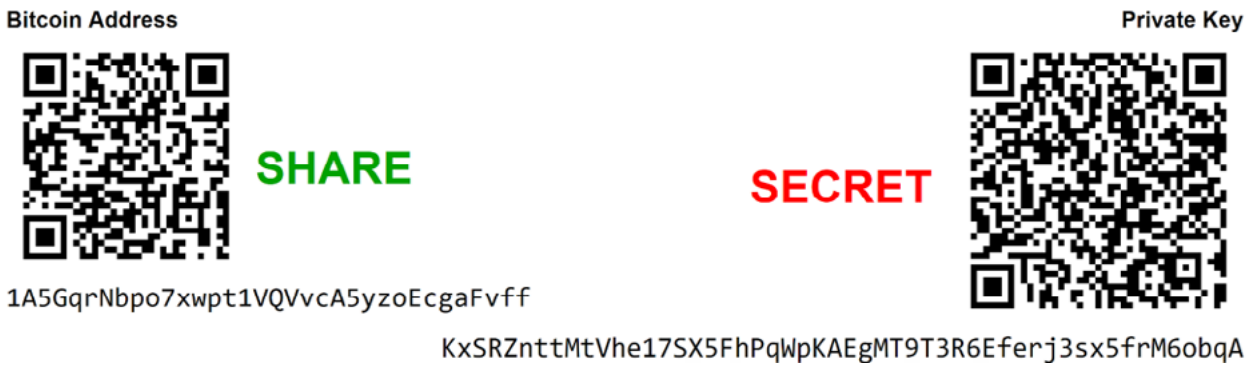
A. Bitcoin wallet



With a market capitalization currently in excess of $110 billion, bitcoin is the most valuable virtual currency, representing about 44% of the total cryptocurrency market. Bitcoin's dominance fell during 2017 as competing currencies such as Ethereum, Ripple, and Bitcoin Cash surged in value. Source: coinmarketcap.com

Bitcoin is currently the leading cryptocurrency in terms of charitable donations. While no exact figure is available for the amount of bitcoin charities received in 2017, it was certainly in excess of $100 million.

In order for a charity to accept bitcoin donations, it must have a digital wallet that supports bitcoin. A wallet is essentially an address that can send, receive and store bitcoins. There are three elements to a wallet: the public key, the private key (password), and the address. The wallet address is 58 alphanumeric characters which are derived from the public key. Donors can send bitcoin to your address without any further information.



A wallet can be created in several ways, but the simplest is by registering an account with a cryptocurrency exchange. When choosing an exchange, it is highly recommended to conduct due diligence, and select a reputable business. Almost all the cryptocurrency thefts you read about in the news have been hacks of exchanges which did not properly secure their customers' wallets. It is recommended to use an exchange that supports 'cold storage' of your wallet.

More tech-savvy users may elect to create a wallet off-exchange by downloading a copy of the bitcoin application. This might be more appropriate for non-profits who wish to hold their bitcoins as an investment rather than converting them immediately to hard currencies. To convert to currency, you must have an account at an exchange or a payments provider.

Whichever approach is chosen, it is critical to follow best practices in securing your wallet. Multi-signature and two factor authentications are essential. More information on hold to secure your wallet can be **found here**.

There are two ways most charities accept bitcoin, either by posting their wallet address publicly, or by creating a fillable contact form and issuing a bitcoin invoice by email to donors who complete the form.

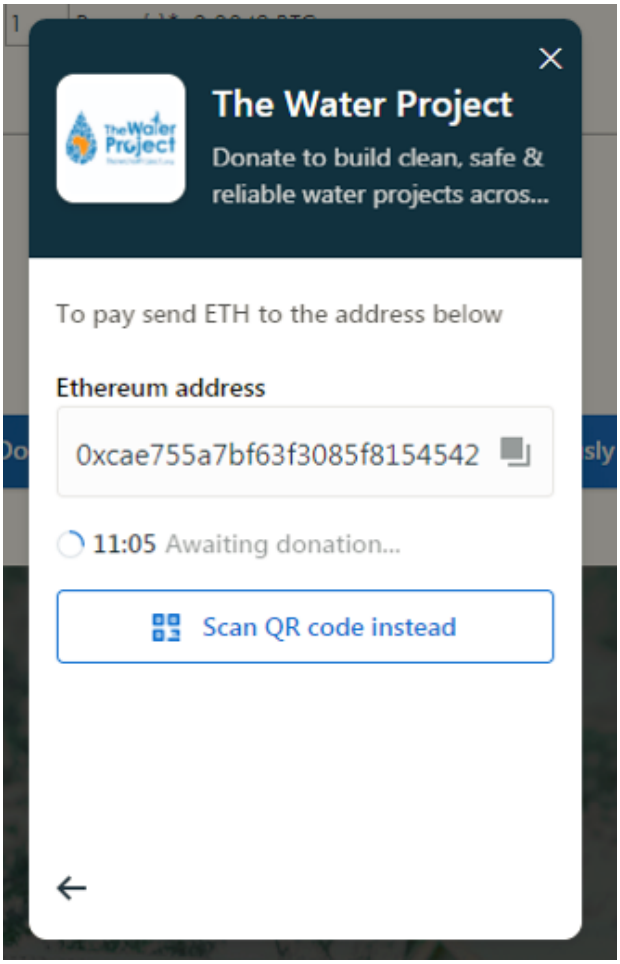
Posting your wallet address to your website is a simple way to begin accepting payments, however there are two risks to this approach. Firstly, the web page the address is posted on is vulnerable to cyberattack, what is known as a 're-direct hack'. A hacker may be able to change the wallet address posted on your website to an address under their control, and any donations made to that wallet would be stolen. Secondly, posting your address publicly means that anyone can see the balance of your wallet, and which account addresses have sent you donations.

> Save the Children uses the invoice approach, and has chosen to **partner with BitPay**, a popular cryptocurrency payments service provider. **Bitpay does not charge registered non-profit organizations transaction fees for donation processing.**

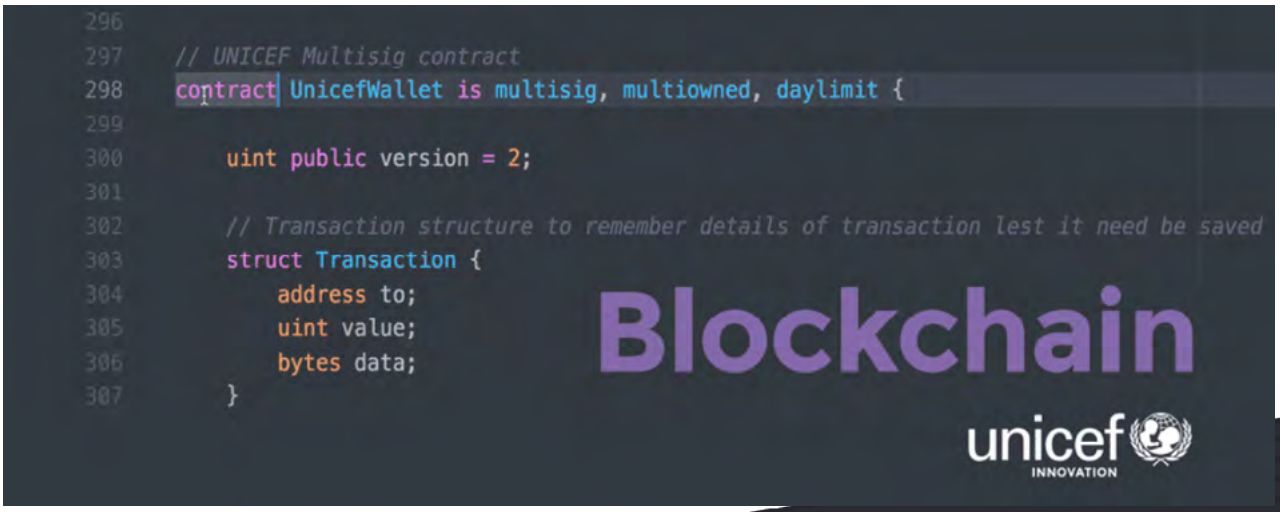
B. Ethereum (ether)

Ethereum is a public blockchain proposed in 2013 by Vitalik Buterin. The term is used interchangeably with ether, the cryptocurrency which is generated by the Ethereum blockchain. Ether is currently the world's second most valuable cryptocurrency after bitcoin.

Ethereum was designed to improve on bitcoin by adding smart contracts, which are the ability to program money. This characteristic has made Ethereum attractive both in terms of donations, and in the distribution of those donations. **UNICEF Ventures is exploring the use of smart contracts** to increase efficiency and transparency in their operations, but more on that later.



Setting up an ether wallet is a similar process to bitcoin as described above. The largest US cryptocurrency exchange Coinbase, **is also fee-free for non-profits.**



C. Alt-coins

The universe of cryptocurrencies is expanding at an astonishing rate. In addition to bitcoin and ether, it includes Ripple, Monero, Bitcoin Cash, Litecoin, NEM and many more. Coinmarketcap lists over 1,100 coins and tokens with at least $100,000 in aggregate value at the time of writing. While most of these coins will likely end up worthless, it may be useful for non-profits to track the top performers, and craft messaging to the communities associated with each coin targeted. There are currently 104 cryptocurrencies with a total market capitalization in excess of $100m.

D. What to do once you receive donations

For many people, their first exposure to cryptocurrencies has been reports on the fluctuating price of bitcoin. Bitcoin began 2017 valued at around $1,000. By December, it peaked at just under $20,000, before plummeting back to $6,000 in February of this year. Since then, it has remained in the $8,000 - $12,000 range.

This presents a dilemma for organizations holding quantities of bitcoin or other cryptocurrencies – do you stick or twist?

In the medium to long-term, there is an expectation for the price of bitcoin and other coins to stabilize, particularly as they are adopted by wider bases. In the meantime, holding a significant amount of bitcoin presents a major volatility risk.

There are also public relations considerations to be made. How would your donors feel to see the value of their donations tumble off the back of a bad day for bitcoin?

2. NEW FUNDRAISING TECHNOLOGY

A. DApps

Decentralized applications, or DApps are similar to the mobile apps you use everyday, except that the invisible back-end runs on a decentralized public blockchain instead of a trusted third-party. Bitcoin is technically the first DApp, but the blockchain community tends to use the term to refer to the new generation of mobile apps built on blockchains. DApps have several advantages over traditional apps, including tighter security, transparency to users, and the ability to store value.

DApps cost a small fee every time they are used, called gas. These fees compensate the operators of thousands of nodes around the world that comprise the public blockchain. The CryptoKitties DApp made headlines around the world when it surged in popularity and overwhelmed the entire Ethereum blockchain, causing transactions to slow to a halt, and fees to rise significantly, highlighting the difficulties in scaling these new technologies for mass adoption.

3. 5050LABS – THE FIRST BLOCKCHAIN 50/50 DRAW

eXeBlock is currently in the final stages of development of its first DApp, 5050Labs. Set for beta launch in Spring 2018, this DApp is based on the 50/50 draw concept, where a sponsor sells raffle tickets for a few dollars each, and the proceeds are split between a single winner and the charity sponsor. 5050Labs is a white-label product for charities, sports teams and clubs to engage with a wider audience.

50/50s are popular at sporting events in North America, with some regularly raising hundreds of thousands of dollars per draw. The **Canadian Cancer Society's 2017 50/50 jackpot was over $1,075,000**. Despite being successful fundraising method, traditional raffle ticket sales have several drawbacks; they require volunteers to sell paper tickets, the draw lacks transparency for participants, and the entire process is difficult for charities to track and audit. While some digital solutions exist, they often have setup costs plus fees of up to 15% of the proceeds.

With eXeBlock's new DApp, any eligible non-profit will be able to set up and run a global 50/50 draw with a few clicks, with full transparency for all participants, and no cost to try. Initially the DApp will only support bitcoin payments, but by late 2018 it will include debt and credit card payment options.

Sign up for the free beta test here: **www.5050Labs.com**

4. DONOR ADVISED FUNDS

A. Fidelity Charitable

In February 2018, Fidelity Charitable announced that it had received $69 million in cryptocurrency donations during 2017, 10 times the amount donated in 2016. Fidelity noted that these donations were the fastest growing category of property donated, growing up to 140% faster than real estate, stock shares and other illiquid assets. Bitcoin made up around 7% of total non-publicly traded asset donations.

Fidelity processes these donations through Coinbase, which immediately converts the bitcoins into cash which is deposited in the donor advised account. These are used to support over 127,000 non-profits. Fidelity is the largest private wealth management firm, and it is no accident that their charitable arm has gained an early lead in bitcoin, having explored the technology since 2014.

The firm's technology incubator, Fidelity Labs, spent six months prototyping, testing and refining their process, eventually helping Fidelity Charitable to launch a pilot program, taking into consideration regulations, legal structure, business and technical requirements. Fidelity Labs Managing Director, Hadley Stern, recounts this journey in his blog piece, "Fidelity's Proof of Work: Our Bitcoin and Blockchain Journey".

B. National Philanthropic Trust

According to the 2017 Donor-Advised Fund Report from the National Philanthropic Trust, the assets under management and grants to non-profits at DAFs both grew by about 10% last year, making them the fastest growing giving vehicle in the US, with over 285,000 individual accounts.

"If you had asked me three years ago about cryptocurrency, I probably would have said, 'What's that?' But so far this calendar year, we've had about $10 million in cryptocurrency gifts, and we've gotten more sophisticated tools," National Philanthropic Trust CEO Eileen Heisman said. "It seems like somebody absolutely has turned on the light on cryptocurrency giving."

The National Philanthropic Trust has offered to help facilitate cryptocurrency donations to other charities who are less comfortable dealing with new technology.

For US donors, making charitable contributions in cryptocurrency is a good tax planning strategy because in the IRS considers these currencies as property for tax purposes, meaning that upon liquidation, any appreciation of the assets are subject to capital gains tax. However, if the cryptocurrency is donated prior to be being converted to dollars, the donor receives a tax credit equal to the market value of the asset at the time of donation. There is no tax on cryptocurrencies that are converted to cash in a donor advised account. This approach increases the donation size by up to 21%.

For more information on the IRS taxation of cryptocurrencies, see:
https://www.irs.gov/pub/irs-drop/n-14-21.pdf

5. BITCOIN MILLIONAIRES (AND BILLIONAIRES)

A. Pineapple Fund

On December 14th, 2017 an anonymous Reddit user, known by the blog handle 'Pine', **announced he or she would be donating 5,057 bitcoins to charities**, who could apply via pineapplefund.org. Pine also noted that he or she had already donated over $3.5 million to Watsi, the Water Project, EFF, and the BitGive Foundation. At the time the price of a bitcoin was $17,539 USD, valuing the Pineapple Fund at around $86 million.

Because bitcoin wallet balances are transparent to the public, Pine was able to demonstrate that they had the bitcoins and had transferred them to the charities. In its latest update, the Pineapple Fund announced it had received thousands of applications and that over $20 million had so far been disbursed to charities.

B. Vitalik Buterin

Ethereum founder Vitalik Buterin dropped out of the computer science program at the University of Waterloo after receiving the $100,000 Thiel Fellowship, a pet project of tech billionaire Peter Thiel. Buterin invented Ethereum in 2013 at the age of 19. He is thought to hold roughly half of 1% of the ether in circulation, which could place his net worth around $200 million.

On February 1, 2018 the **SENS Research Foundation announced that it had received a $2.4 million donation in ether from Buterin**, having already received over $2 million in bitcoin from the Pineapple Fund.

C. DonorsChoose.org

In March 2018, DonorChoose.org, a crowdfunding website which helps raise money for school and classroom projects, had 35,000 outstanding or partially-funded requests for financial assistance from schools across the US.

These projects were fully funded, however, **by a single donation of $29 million from Ripple**, after to non-profit reached out to organization and its executives. “A million students, overwhelmingly in low-income communities, are going to feel the impact of this gift within the next few weeks,” said Charles Best, chief executive of DonorsChoose.

The charity said the donation would reach classrooms in one in six public schools in the country, a total of around 16,500.

“We’re surrounded by people who have benefited from having great educational experiences and we very much recognize that’s not the case across the U.S.,” said Monica Long, the senior vice president of marketing at Ripple, which is based in San Francisco.

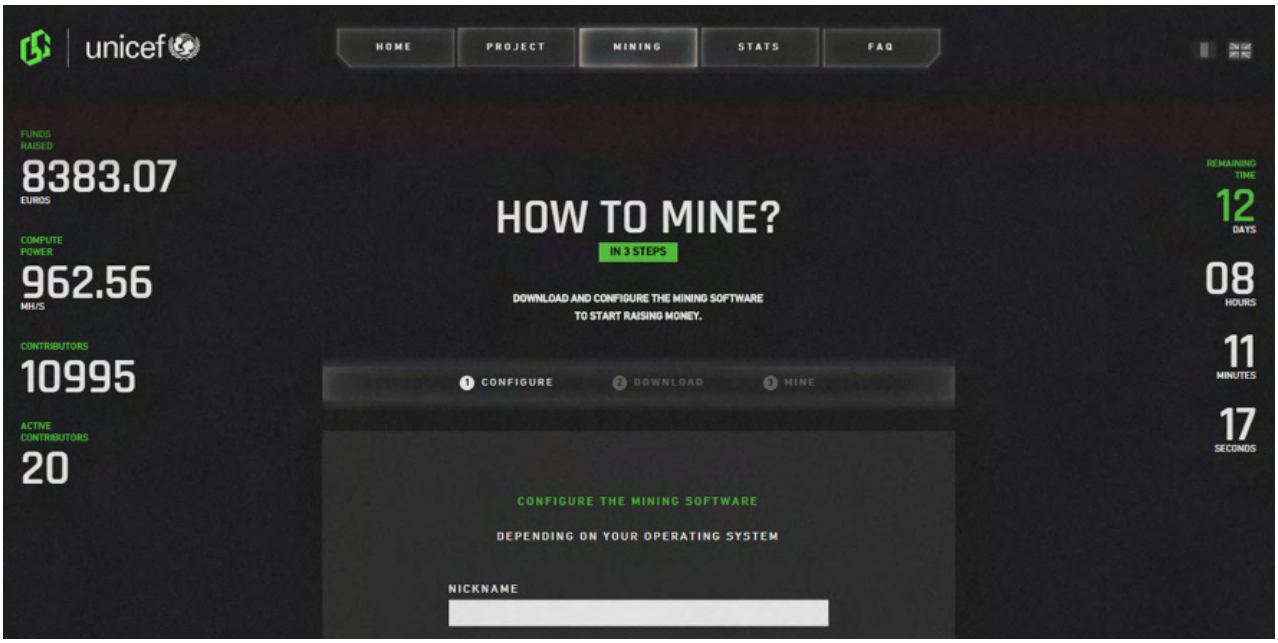
6. MINING CRYPTOCURRENCY

A. UNICEF Syrian Ethereum project

Cryptocurrency is created through a process known as ‘mining’, which involves using computing power to solve complex mathematical problems to validate the blocks of a blockchain. The miner or miners who create each block are rewarded with units of cryptocurrency.

UNICEF launched an initiative called Game Changers to harness the idle processing power of computers owned by video gamers in support of Syrian children. Instead of donating their assets, gamers download a software program to mine ether. As of writing, there are 10,995 gamers participating and UNICEF has received over 8,000 euros.

https://www.chaingers.io/en/index.html



7. INTERNATIONAL REMITTANCES SAVINGS

International remittance and foreign exchange fees make up a significant part of the cost of distributing aid globally. One major benefit of cryptocurrencies is that they can be transferred anywhere on earth with no extra fees. According to the UN, over 200 million migrant workers support over 800 million family members globally. “Transaction costs to send remittances currently exceed $30 billion annually, with fees particularly high to the poorest countries and remote rural areas,” according to the International Fund for Agricultural Development.

The World Food Program is the food-assistance branch of the United Nations, and the largest humanitarian organization addressing hunger. In January 2017 the WFP launched the ‘Building Blocks’ initiative, a program in Jordan to distribute vouchers to Syrian refugees at the Azraq Refugee Camp, with the objective of testing blockchain technology to “authenticate, record, and reconcile cash and food assistance transactions.”

By integrating blockchain into biometric authentication technology, transactions are recording on a private blockchain called **Building Blocks**. With 25% of assistance now in cash, the WFP requires a new approach to micro-transfers to recipients. Traditional international payments methods using banks or payments providers include fees of 2.5% to 10% of the amount sent, reducing the amount available as aid dramatically. Using blockchain, these fees can be reduced to near zero, so the program is estimated to save the WFP around $150,000 a month in bank fees alone. The data could also serve as a credit history for refugees when they ultimately resettle.

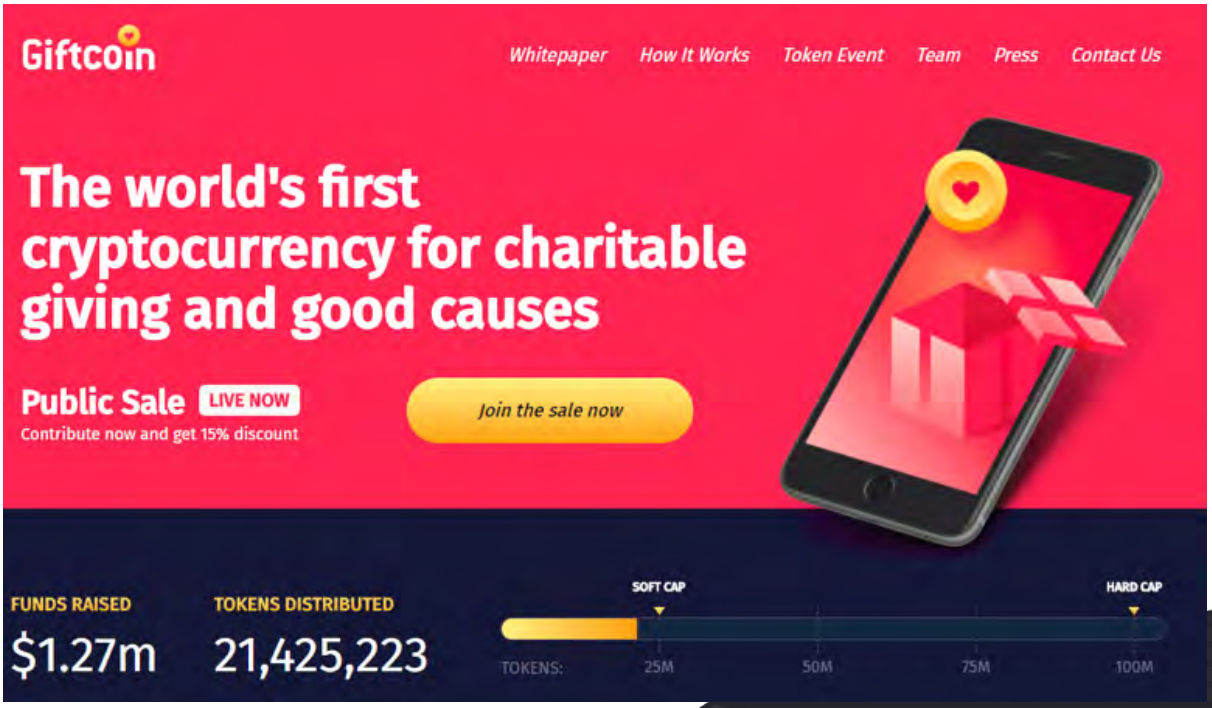
8. NEW CHARITY STARTUPS

Startups raised $5.6 billion through initial coin offerings (ICOs) in 2017. An ICO is a sale of new cryptocurrency coins or tokens, in support of a specific project, product or service. While some ICOs have been controversial due to the lack of regulation, their resemblance to securities offerings, and a proliferation of outright scams, the amount of money pouring into projects is staggering. Many ICOs are structured as non-profit foundations in countries such as Switzerland where favourable regulations are already in place.

Some ICO funded projects are focused on disrupting the traditional charity model. Their criticisms of the status quo are high overheads, a lack of transparency for donors, a lack of trust, credit card fees, government corruption.

A. Giftcoin

Giftcoin plans to build a feeless giving platform, where donors can track their funds and see their direct impact. Giftcoin combines the transparency of public blockchains with smart contracts, allowing automatic disbursement of funds when supported projects reach key milestones. If a project falters, the funds can be redirected to a new project. Giftcoin has partnered with CharityCheckout to make their donations available to over 2,000 charities already registered.



A. BitGive

BitGive was the first bitcoin non-profit when it was founded in 2013, and has since aimed to bridge the gap between innovative technology and practical applications for non-profits in the developing world. BitGive has established partnerships and raise funds with the likes of Save the Children, The Water Project, TECHO, Medic Mobile and more.

The organization's flagship **GiveTrack** project provides a donation platform for non-profits, providing transparency and accountability to donors by sharing financial information and results in real time.

9. OTHER BLOCKCHAIN TECHNOLOGY USE CASES

A. Transparency

Concerns over the transparency of charitable donations have been rising for several years. According to a 2017 piece of research from the UK's Charity Commission, the public's trust in the charity sector was rated at 6.3 on a scale of 0-10, below that of the food and drink industry (6.4). Former UN General Secretary Ban Ki-moon has said that as much as 30% of development aid does not reach its intended destination.

Last year, blockchain start-up Disberse began a trial with a network of national and international aid agencies, with the aim to improve the transfer and traceability of donations.

The nature of the blockchain makes it simply for donors to track their donations in real time, on an open and immutable public ledger, and is already helping charitable organizations regain public trust.

Similarly, Alice, a social funding and impact management platform, is seeking to incentivise social organizations to run projects with greater transparently. It achieves this by ensuring charities that achieve their stated goals receive higher funding.

B. Operating efficiencies

As well as cost saving, there is a growing movement that is seeing blockchain technology used to make operations in the fundraising sector more efficient.

According to global humanitarian aid agency Mercy Corps, reduced transactional friction and the integration of digital and physical assets were two potential upsides of utilising distributed ledger technology within its operations.

There could also be benefits across recordkeeping, organizational governance and supply chain management, among many others.

C. Digital Identity

ID2020, a non-profit public-private partnership aims to improve the lives of the estimated 1.1 billion people globally without any official form of identification. The lack of identification often denies these people access to political representation, healthcare, education and banking. The blockchain can play a major role in bringing these people into the public sphere and ensuring they receive basic services.

In an ID2020 pilot, the **organization will incorporate blockchain into a biometric system used by the United Nations refugee agency, UNHCR**. This will help it facilitate cash transfers, shelter and food, while also saving fees on bank transfers. ID2020 is supported by Microsoft, Accenture, the Rockefeller Foundation and Mercy Corps.

Thanks for reading, we appreciate your feedback

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