#NT100IS5: AID:TECH

Celebrating 5 years of NT100

BLOCKCHAIN TECH KEEPING TRACK OF AID DISTRIBUTION

By Aid:Tech

Project URL: https://aid.technology/

Organisation URL: https://aid.technology/#solution
Organisation Twitter: @aidtechnology

To celebrate five years of NT100 we've revisited Aid:Tech to understand what's helped the initiative grow, since it featured in our 2016 NT100.

No one could accuse Joseph Thompson of shying away from a challenge. In 2009, he took part in what has been described as "the toughest foot race on Earth" by TIME Magazine – the Marathon des Sables, a six-day, 156-mile ultramarathon in the Sahara Desert.

In the process, he raised over $120,000 for a charity that provided reconstructive facial surgery for children suffering from noma pudendi – a gangrenous disease that leads to disfigurement. Eager to learn how the funds helped, he contacted the charity several months later, only to find out that the money had instead been given to an NGO that was involved in building schools. When he contacted the NGO, they were unable to locate the funds or explain how they were applied.

Thompson's case is far from isolated; it is notoriously hard to measure how fraud, corruption and inefficiency is affecting aid around the world. UN Secretary-General Ban Ki-moon believes that 30% of aid failed to reach "its final destination" in 2011, and the problem is not getting better.

The Red Cross has recently apologised for losing more than $5 million of aid money to fraud and corruption during the Ebola epidemic in West Africa, while Human Rights Watch reported that only $79 million of $300 million pledged by six countries for the education of Syrian refugees is accounted for.

Closer to home, the UK Department for Work and Pensions revealed that it made £3.3bn in overpayments, and £1.7bn in underpayments between 2015 and 2016, in part due to clerical errors and fraud. The problem is not limited to the not-for-profit sector. The International Monetary Fund said last year that

bribery alone, a sub-sector of corruption, costs more than $1.5 trillion per year, nearly 2% of the global GDP.

Thompson believed there had to be a better way to ensure transparency and trackability for the world's transactions, especially when it came to aid for those who needed it most. He teamed up with co-worker Niall Denehy to co-found Aid:Tech, a software company that uses blockchain technology to provide a secure platform for transactions that are stored on a distributed ledger, which means they can easily be tracked and instantly verified.

Aid:Tech's pilot project took place in Lebanon in 2016, where the company partnered with the Irish Red Cross to deliver $10,000 in food vouchers to 500 refugee families. Each family received a $20 smart card voucher with a QR code that matched the cardholder's digital ID, including a photo, already stored in the blockchain. Cashiers at a local supermarket were trained in how to scan the voucher using a mobile phone to ensure that it was valid.

Throughout the pilot all vouchers were spent, and all transactions were recorded and archived, which was nothing short of a revelation in a world where vouchers regularly go missing, or are falsified without detection.

A shopkeeper in Lebanon who took part in the pilot recalled how he participated in a similar programme before, which yielded $6,000 worth of vouchers. When he took the vouchers to the NGO who distributed them, he was told that only $2,000 worth had been issued. The rest were fraudulent. He spent the next month seeking compensation for the goods he had given away.

When the same shopkeeper participated in the Aid:Tech and Irish Red Cross programme, he still received fraudulent vouchers, but this time the outcome was very different. "Within the first two hours we encountered about 10% fraud on the whole network, so we were able to stop transactions literally happening in real time," recalls Thompson. That meant that the shopkeeper could instantly validate each voucher, and the NGO knew exactly how much money was being spent and what the shopkeeper was owed at any given time.

As well as transparent and secure access to funds, Aid:Tech provides refugees with another valuable asset: legal identity. "The feedback was that having a tangible card uniquely associated with each individual was incredibly empowering," explains Denehy, now COO at Aid:Tech. "The participants told us they felt included in a financial system; that they had been given back some level of control," he continues in a blog post.

According to the World Bank, there are 2.4 billion people who lack official identification, including children under 14 who have never been registered. Blockchain systems, like the one Aid:Tech has developed, could provide a simple and secure solution that travels across borders, allowing refugees to access financial and legal services and participate in society more easily.

Since their success in Lebanon, Thompson and Denehy have shifted their attention to their native Ireland, where they partnered with local non-profit St Vincent de Paul Society to deliver shop vouchers to 800 members of the traveller community. Thompson says that once again all vouchers were

redeemed, tracked and recorded with 100% accuracy. As a result, more children's uniforms were bought, compared to when the recipients had been given cash, which allowed more children from the traveller community to attend school. Discussions are now under way to repeat the project on a larger scale next year.

Aid:Tech is currently working with UNDP to increase security and lower costs of remittances used by 2,000 Serbian families who share funds while living in different countries. The aim is to lower fees associated with remittances to 3% per transaction, one of the UN's Development Goals for 2030.

While Aid:Tech is still a young company completing pilot projects, it is scaling fast. "We need to understand user behaviour really to go from pilot to scalability. We want to start small on purpose [to] make sure we do this properly before we scale," explains Thompson.

He is the first to admit that Aid:Tech's pilot programmes taught the team some key lessons. "One thing we got completely wrong is that we thought we understood how to roll out a project on the ground. As we're a tech company that's not our role or expertise, so we decided to take a step back and just be tech providers," he explains.

The second learning was about engaging with those who are on the receiving end of Aid:Tech's technology first. "It's our company policy that we won't go near a project unless we get engagement or buy in from the beneficiaries," he says. Aid:Tech now insists on interviewing beneficiaries before and after each pilot to correctly asses need and impact.

Currently employing six staff across offices in London, Dublin and Washington DC, the company plans to hire 14 more people and open an office in Dubai in 2018. 25,000 users are currently registered on the platform, and Thompson says that is likely to go up to 280,000 at the end of this year.

The company is already revenue positive on the strength of its commercial partnerships with five existing clients, including the UNDP and the International Federation of the Red Cross, which cumulatively connect them to markets in 190 countries. Seventeen potential client deals are in progress, which could see Aid:Tech fulfilling Thompson's goal of reaching "hundreds of millions of people," before long.

Thompson is adamant that in order to attain that goal and create positive social impact, Aid:Tech, which is a for-profit enterprise, must put its commercial goals at the forefront. "If you look at the most successful people in the world who are having an impact, it's Bill Gates, Richard Branson. And they've done that by having power, and by having wealth. They can get a lot more done a lot quicker, as opposed if they had been a social enterprise or a not-for-profit," he explains.

He believes that 'tech for good' companies have been getting better at developing sustainable business models that attract investors. "Investors do like the social impact angle ... but if they cannot see a viable route to market, they won't invest, if it's socially good or not," he says.

Aid:Tech itself has attracted $128,000 of seed investment through Techstars, in addition to under $300,000 in grants, and is currently looking to raise $2 million in outside investment by the end of 2017. The company currently generates revenue from project partners who pay for programme delivery, and aims to generate recurring revenue in the future by charging each client per user on the platform.

While there is no disputing the potential that Aid:Tech's blockchain technology shows in connecting, identifying and providing for the world's vulnerable, is there danger of compromising users' privacy through exploiting their individual data?

Aid:Tech effectively leaves the responsibility of managing users' data with the individuals themselves, and the NGOs and governments that manage the networks Aid:Tech provides. Thompson likens this to the principle behind a credit card company – if your card is lost or stolen, you contact the provider (in this case the government agency or NGO), who takes care of it. Aid:Tech merely provides the technological infrastructure the data lives in.

Whether or not user data proves to be more secure than before remains to be tested over time. What is clear is that Aid:Tech is at the vanguard of a larger trend that's seeing humanitarian and non-profit organisations adopting blockchain technology to more effectively and securely deliver social services.

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