

How Decentralized Autonomous Organizations Optimize Charitable Giving

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By

Wulf Kaal¹

Abstract

Charitable giving in legacy systems is subject to several major downsides that can be addressed with decentralized autonomous organizations (DAOs). Centralized legacy charitable organization often lack foundational transparency and are subject to significant power imbalances that favor the donor and lead to centralization of the charity. Existing legal incentives often lead to so called Zombie Charities in many jurisdictions. The donative intent can therefore often not be optimally fulfilled. DAOs combine unique feedback loops and transparency features with community governance that address the existing shortcomings of charitable organizations in centralized structures.

Key Words: Common Good, Charity, Decentralized Autonomous Organization, Finance, Token Models, Cryptocurrencies, Feedback Effects, Emerging Technology, Tokens, Blockchain, Distributed Ledger Technology

JEL Categories: K20, K23, K32, L43, L5, O31, O32

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Background

The 21st century has witnessed a remarkable increase in philanthropic engagements. Over a century ago, in 1911, Andrew Carnegie applied for and was granted a charter to create the Carnegie Foundation, the first foundation of its kind.² Other wealthy Americans, like John D. Rockefeller, followed suit.³ Other nations quickly followed suit. For example, in the last 20 years the number of private foundations in Brazil increased by 300%, resulting in 5.5 billion USD donated within the same time frame (1991-2011).⁴ India's philanthropy exceeded 5 billion USD in 2006 alone; in China, over 800 private foundations were established between 2006 and 2011.⁵ From a global perspective, the flow of private philanthropy from OECD nations to developing ones increased from around 5 billion USD in 1991 to over 53 billion by 2008.⁶ This massive uptick in private philanthropy in recent decades has been directly attributed to the massive uptick in private wealth.⁷

The dramatic increase in private philanthropy that manifested itself in the 21st century has resulted in a dramatic shift in endowment practices, moving modern charities are increasingly moving from advocates to investors.⁸ The massive increase in private wealth has resulted in a shift where social and educational problems are being organized and addressed under the guise of "new philanthropy" where philanthropists harness "market-based" solutions to modern problems.⁹ This relatively new philosophy within philanthropy can blur the lines between what is considered a foundation, a start-up, a social venture, and a venture capital fund.¹⁰ The traditional grant-driven style of philanthropy, by itself, may be insufficient and is increasingly giving way to

² Crutchfield, Leslie, et al. "Donors Must Change Their Ways If They Want Their Money to Make a Difference." *Chronicle of Philanthropy*, vol. 23, no. 10, Apr. 2011, p. 11.

³ Id. (check please)

⁴ David Moore & Douglas Rutzen, *Legal Framework for Global Philanthropy: Barriers and Opportunities*, *The International Journal of Not-for-Profit Law*, VOLUME 13, ISSUES 1-2, APRIL 2011,

⁵ Id. (check please)

⁶ Id. (check please)

⁷ Id. (check please)

⁸ Alex Daniels, Rebecca Koenig, *How New Philanthropy Is Divvying Up the Charity Dollar: And why nonprofits fear they are losing out*, *Chronicle of Philanthropy*, Dec 2017, Vol. 30 Issue 2, p18-23. BUCHANAN, PHIL. "5 Issues Foundations Must Confront to Stay Relevant." *Chronicle of Philanthropy*, vol. 28, no. 8, June 2016, pp. 36–40

⁹ Stephen J. Ball, Antonio Olmedo, *Global Social Capitalism: using enterprise to solve the problems of the world*, *Citizenship*, 10&11 Social and Economic Education (2011)

¹⁰ Id. (check please)

entrepreneurial ventures in the context of charity.¹¹ A style of philanthropists that focus on the seeding of other businesses is called “philantrepreneurs.”¹² Non-profits are no longer the only vehicle for charitable distribution. For example, the Omidyar Network, the philanthropic arm of billionaire eBay founder Pierre Omidyar, has both a foundation and a limited-liability corporation.¹³ Since its founding in 2004, it has split its contributions almost evenly with 618 million USD going to non-profits and 563 million going to for-profits.¹⁴

The use of LLCs and other corporate entities are becoming increasingly popular in the philanthropic world. Donors are often more concerned with getting the best social return on their charitable giving, rather than merely writing checks.¹⁵ The highest profile philanthropists to embrace this change are Mark Zuckerberg and his wife, Priscilla Chan.¹⁶ The Chan Zuckerberg Initiative has fully embraced the LLC model; some commentators see this is a rational step because LLCs offer flexibility to invest, to donate freely, and to donate to politicians.¹⁷ Moreover, some donors prefer avoiding foundations because of the legal limitations donating to political campaigns; alternatively, since the Supreme Court’s decision in *Citizens United v. Federal Election Commission*, private corporations cannot be restricted by the United States government for political donations.¹⁸

This reconfiguration of what constitutes charitable work has resulted in corporate foundations and philanthropists assuming social and moral duties that had historically been assigned to civil society organizations like government and state agencies.¹⁹ But it remains unclear if this new social and moral influence of charities actually achieves the goal of the respective charities.

¹¹ Short - Alex Daniels, Rebecca Koenig, *How New Philanthropy Is Divvying Up the Charity Dollar: And why nonprofits fear they are losing out*, Chronicle of Philanthropy. Dec 2017, Vol. 30 Issue 2, p18-23.

¹² Stephen J. Ball, Antonio Olmedo, *Global Social Capitalism: using enterprise to solve the problems of the world*, Citizenship, 10&11 Social and Economic Education (2011)

¹³ Short - Alex Daniels, Rebecca Koenig, *How New Philanthropy Is Divvying Up the Charity Dollar: And why nonprofits fear they are losing out*, Chronicle of Philanthropy. Dec 2017, Vol. 30 Issue 2, p18-23.

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ Stephen J. Ball, Antonio Olmedo, *Global Social Capitalism: using enterprise to solve the problems of the world*, Citizenship, 10&11 Social and Economic Education (2011)

Statistical Breakdown of Modern Charity

The data below illustrates some of the changes discussed earlier.

Figure #1 shows the charitable giving by Americans adjusted for inflation as of 2016.

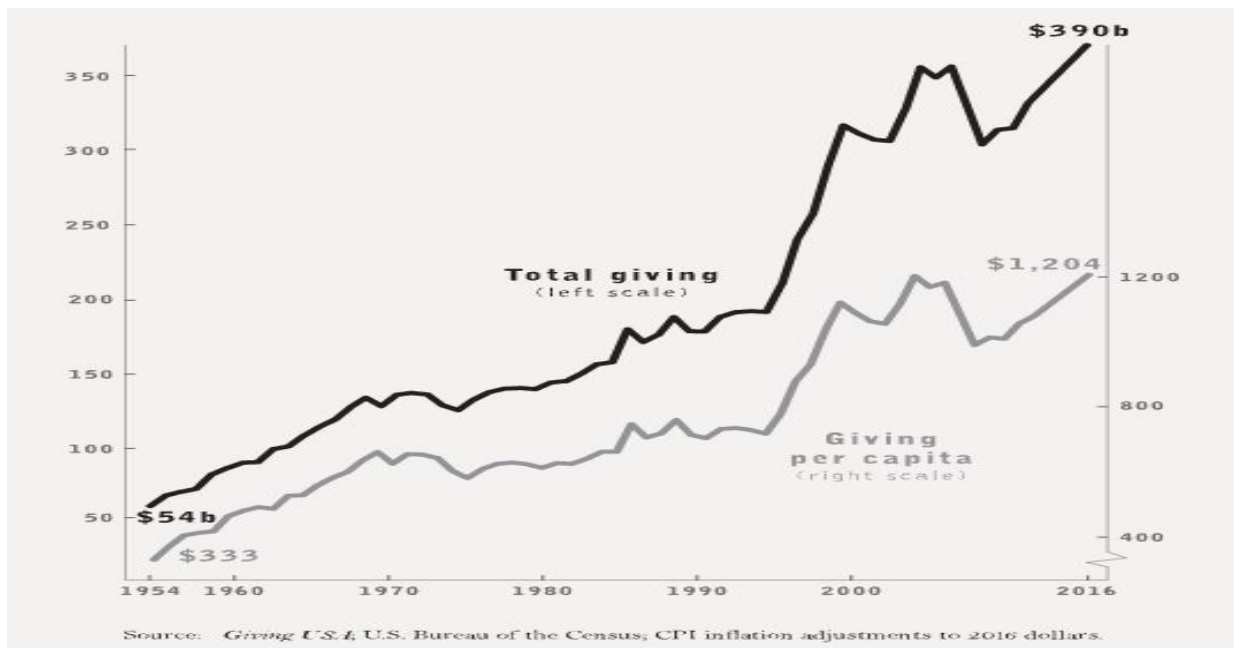


Figure #1 Real Rise in U.S Giving (charitable donations after adjustment for inflation)²⁰

Figure #2 shows the amount of private wealth that is attributed overseas. Moreover, it displays the vast difference between overseas donations by private Americans versus its closest counterparts.

²⁰ <https://www.philanthropyroundtable.org/almanac/statistics/u.s.-generosity>

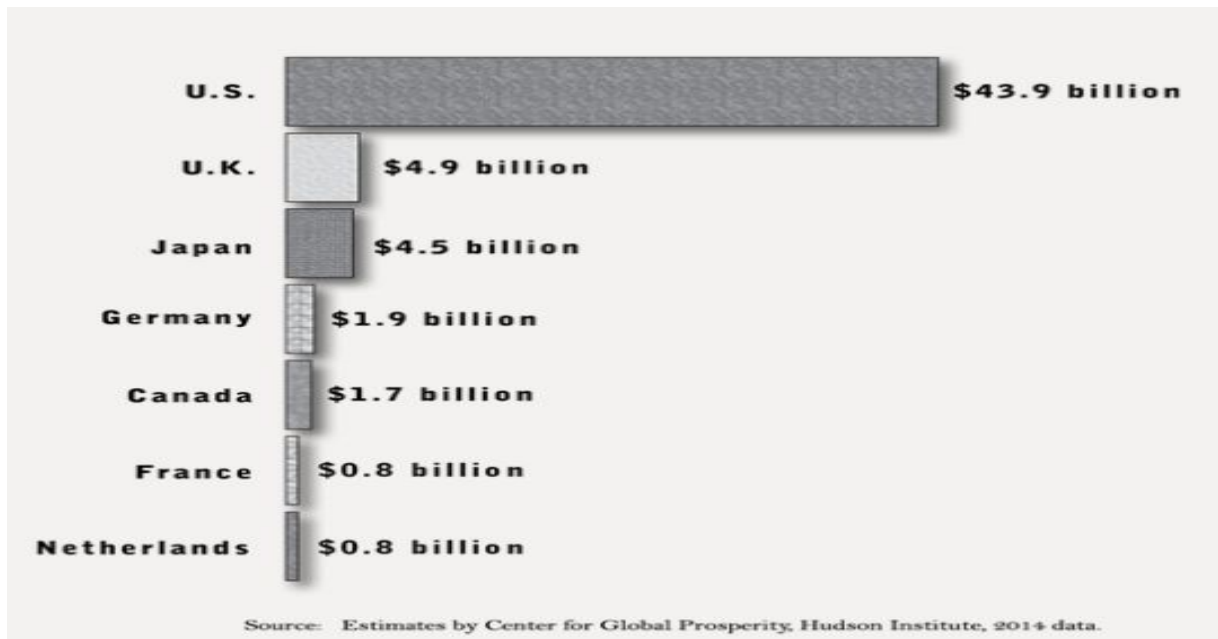
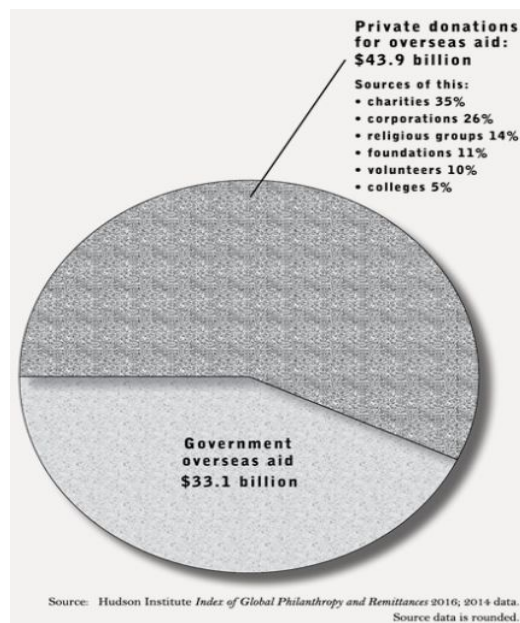


Figure #2 Private Donations for Overseas Aid²¹

Figure #3 shows the amount of private wealth that is attributed overseas. However, this graph also displays that private American donations exceed United States government aid when it comes to overseas charitable causes.



²¹ Id.

Figure #3 Private Overseas Donations vs. Government overseas aid²²

Figure 4 provides a breakdown of U.S donations by various causes. It should be noted that religion, being the largest category, is also an extremely broad category which contains many different sub-causes like relief for the poor, medical care, education, or disaster relief.

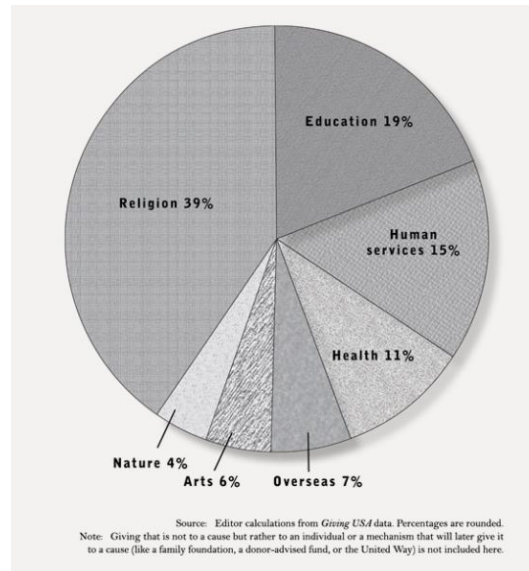


Figure #4 Percentage of U.S Donations Going to Various Causes²³

Figure #5 offers another source and a more recent analysis on the percentage of U.S recipients by area of charity.²⁴

²² Id.

²³ Id.

²⁴ <https://nccs.urban.org/publication/nonprofit-sector-brief-2019#recipients>

Charity type	% of all contributions, 2013	% of all contributions, 2018	% point change, 2013–18
Religion	32.2	29.6	-2.6
Education	13.0	13.9	0.9
Human services	12.0	12.2	0.2
Gifts to foundations	11.9	11.9	0.0
Health	9.4	9.7	0.3
International affairs	5.7	5.4	-0.3
Public-society benefit	7.1	7.4	0.3
Arts, culture, and humanities	4.3	4.6	0.3
Environment and animals	2.5	3.0	0.5
Gifts to individuals	2.1	2.2	0.1

Source: Giving USA Foundation (2019).

Motivation

Flaws in Charitable Giving

Modern charitable giving is subject to several distinct problems. Three distinct and overarching issues can be distinguished in the literature on charitable giving. The literature debates the validity and scope of these three issues and many additional issues associated with modern charity. However, the three issues below are the consistent themes that are discussed in different ways by the literature:

1. The lack of transparency in modern charitable organizations
2. Power imbalances and lack of autonomy
3. Perverse legal incentives which limit effective gift giving

Lack of Transparency

A key problem that afflicts charitable organizations is the lack of trust the general population has towards charitable organizations. Without trust in their ability to perform in accordance with their donor's intent, charitable organizations face many threats to their ability to carry out their missions.

Without public trust, charities may not be able to attract the necessary talent, raise cash, and persuade the public to take action on social, environmental, and other key issues.”²⁵

This lack of trust the public has towards charities can be illustrated with a prominent example. CharityWatch routinely reports cases of abuse of the charitably giving system. For example, two separate actions were filed by the Federal Trade Commission in conjunction with state charity regulators from across the U.S to crack down on predatory practices of companies that solicit donations on behalf of charities.²⁶ These actions were the result of the defendants conducting “an invasive robocall onslaught and keeping the lion’s share of more than 110 million of individual contributions.”²⁷ The defendants were accused of knowingly duping donors into believing that their donations would help breast cancer patients, families of children with cancer, homeless veterans, fire victims, and others in need. The scam defrauded the donor and no money went to the charitable purposes the defendants described to the donors.”²⁸

The lack of transparency in charitable giving has far reaching consequences. Private foundations are less transparent and have fewer accountability mechanisms and regulations than businesses and political activities.²⁹ Private foundations have plutocratic power because such organizations’ leaders or trustees are not elected democratically, they are allowed to work in perpetuity, and their operations lack accountability and transparency.³⁰ That lack of transparency in big philanthropy can contribute to a demise of democracy.³¹ Increased transparency may be necessary to avoid the erosion of civic equality and democratic values.³²

The concerns regarding the lack of transparency within charitable organizations is not limited to the academic community. According to the 2019 Edelman Trust Barometer (an annual study of

²⁵ GOSE, BEN. “*The Trust Crisis*.” *Chronicle of Philanthropy*, vol. 32, no. 3, Jan. 2020, pp. 12–14.

²⁶ <https://www.charitywatch.org/charity-donating-articles/fundraisers-for-f-rated-charities-hit-with-a-combined-1702-million-in-legal-judgments>

²⁷ *Id.*

²⁸ *Id.*

²⁹ Rogers, Robin, “*Why the Social Sciences Should Take Philanthropy Seriously*”, *Soc* (2015) 52: 533-540

³⁰ Reich, R. (2019). *Philanthropy in the service of democracy*. *Stanford Social Innovation Review*, 17-(1), 26-33.

³¹ Una Osili, Kinga Zsofia Horvath, Sasha Zarins, et. Al., *An Annotated Bibliography of Recent Literature on Current Developments in Philanthropy*, February 2019.

³² Callahan, D. (2017). *The Givers, wealth power, and philanthropy in a new gilded age*. First edition. New York: Alfred Knopf.

institutions around the world) only 52% of Americans have faith that nonprofits will do the right thing.³³ Moreover, a survey by the Better Business Bureau found that 70% of Americans said that trust is essential before making a donation, but fewer than 20% of Americans said they highly trust charities.³⁴ Many commentators agree that the lack of trust towards charities could depress giving, making it harder for organizations to recruit good employees, and limit a foundations' ability to advocate effectively.

Power Imbalances

Power imbalances between the public and wealthy donors calls into question the long-term success of charitable organizations. The most wealthy individuals on the planet have significant influence on social institutions through their charitable organization.³⁵ While social institutions may resist the “reshaping” by charities, the public funding crisis in the government and nonprofit space presents an opportunity where philanthropists can leverage underfunded causes and “reshape” them according to their ideas.³⁶ High-net-worth individuals may leverage underfunded causes with corporate strategies to reduce problems corporate interests helped create.³⁷

In essence, modern philanthropy puts far more power in the hands of the individual donor than traditional philanthropy has done in decades. This can be traced back to modern philanthropic strategies that entrust donors with identifying which problems need to be solved and then provide the perceived appropriate solutions; rather than trusting the solutions proposed by the non-profits themselves.³⁸ This approach is more centralized and less grassroots³⁹ for solving societal issues.

As more philanthropy transforms from being unconditional grant giving to a social investment, the measurement of the social return on investment (SROI) has become increasingly important.⁴⁰

³³ GOSE, BEN. “*The Trust Crisis*.” *Chronicle of Philanthropy*, vol. 32, no. 3, Jan. 2020, pp. 12–14.

³⁴ *Id.*

³⁵ Mathew Bishop and Michael Green, *Philanthrocapitalism: How Giving Can Save the World*, Nov. 2009: Bloomsbury Publishing USA.

³⁶ Rogers, Robin, “*Why the Social Sciences Should Take Philanthropy Seriously*”, *Soc* (2015) 52: 533-540

³⁷ *Id.*

³⁸ *Id.* at 536

³⁹ *Id.*

⁴⁰ Phillips, S.D. and Jung, T. (2016) *A New ‘New’ Philanthropy: from impetus to impact*, in Jung T., Phillips, S.D. and Harrow, J. (eds.) *The Routledge Companion to Philanthropy*, Routledge: London, pp. 5-34

However, some authors argue this has resulted in donors to expect some degree of “financial or management oversight” similar to what investors use with young companies.⁴¹ Furthermore, grantees often feel pressure from their donors to undertake specific projects and work in particular ways to address the strategic goal set by the philanthropists.⁴² The constant appeasement of the grantee to maintain funding from the donor is one of the most troubling complaints issues for modern charities as pressure from donor interests increases steadily.⁴³ Some commentators go so far as to use the word “oligarchy” as philanthropy “increasingly becomes a playground for private interests.”⁴⁴

The emergence from bankruptcy by the City of Detroit in 2014 provides a prominent example. To avoid creditors from exploiting thousands of pensions from city workers and to avoid losing an impressive art collection, a group of foundations entered into an improbable arrangement.⁴⁵ They brokered a deal between Detroit and the philanthropists contingent upon “particular outcomes” where unelected officials “flexed their political muscle to the limit.”⁴⁶ The deal occurred behind closed doors and raised many concerns over the opportunistic philanthropist’s role in the future of the city of Detroit, and the overall implications on the future of public policy.⁴⁷

In sum, there is a growing concern amongst commentators that modern philanthropy limits the autonomy of grassroots charitable organizations and replaces it with a leveraged and exploitive relationship where the goals of the donor are served above all.

Legal Incentives Undermine Effective Giving

⁴¹ REVERE, ELSPETH. “*After 25 Years of Grant Making, I Worry We Have Lost Sight of Nonprofit Struggles.*” *Chronicle of Philanthropy*, vol. 28, no.11, Sept. 2016, pp. 28–31

⁴² *Id.*

⁴³ *Id.*

⁴⁴ BUCHANAN, PHIL. “5 Issues Foundations Must Confront to Stay Relevant.” *Chronicle of Philanthropy*, vol. 28, no. 8, June 2016, pp. 36–40

⁴⁵ Phillips, S.D. and Jung, T. (2016) A New ‘New’ Philanthropy: from impetus to impact, in Jung T., Phillips, S.D. and Harrow, J. (eds.) *The Routledge Companion to Philanthropy*, Routledge: London, pp. 5-34

⁴⁶ *Id.*

⁴⁷ *Id.*

Tax Free Cash Hoarding

One of the main critiques of modern philanthropy is the often long gap between the time when donors receive their tax deduction and when the money is actually employed for the intended charitable ends. Boards and donors often seek to preserve their endowments rather than simply spend the money.⁴⁸ Rather than funds being employed immediately, the funds are allowed to accrue tax free.⁴⁹ This may run counter to the spirit of the rules governing charitable deductions and may contribute to harmful inefficiency.⁵⁰ This phenomenon has been called “Zombie Charity” because by the time a donor sees their funds employed for charitable purposes, they are already dead. As the law stands in 2021, foundations are only required to spend 5% of their assets a year.⁵¹ Although this is a minimum requirement for foundations, many boards view 5% as the default rule.

Legal Barriers to Cross-Border Philanthropy

Another critique of modern charity revolve around the legal barriers many jurisdictions have instituted that limit international philanthropy. While the significant amount of wealth used for international philanthropy is increasing steadily, the volume of assets alone does not necessarily mean no present challenges exist to those who want to help beyond their own borders. These legal barriers can be broken down into 2 categories: “outflow” constraints, and “inflow” constraints.⁵²

1. Outflow Constraints: Constraints imposed by the donor nation on the outflow of philanthropy
2. Inflow Constraints: Constraints imposed by the recipient nation on the inflow of philanthropy

Outflow Constraints

⁴⁸ “Put a Stake in ‘Zombie Charity.’ *Philanthropy Is for the Living.*” *Chronicle of Philanthropy*, vol. 31, no. 11, Sept. 2019, pp. 31–32.

⁴⁹ *Id*

⁵⁰ *Id*

⁵¹ *Id*

⁵² David Moore & Douglas Rutzen, Legal Framework for Global Philanthropy: Barriers and Opportunities, *The International Journal of Not-for-Profit Law*, VOLUME 13, ISSUES 1-2, APRIL 2011,

Philanthropists in a given jurisdiction may have to address significant limitations on foreign grantmaking by tax-exempt entities. For example, in India, tax-exempt entities must apply their assets within India's borders. Therefore, if an Indian philanthropic organization wanted to help causes outside of India, that organization would now be liable to tax.⁵³

The second constraint that international philanthropists may encounter is the requirement of advanced government approval in a given jurisdiction. For example, in the United Arab Emirates, Article 43 of the Federal Law No. 2 prohibits the distribution of grants, gifts, donations, or other transfers to foreign entities without ministerial approval.⁵⁴ Likewise, in Egypt, Article 17 of Law No. 84 prohibits domestic NGOs from sending funds or other materials to foreign organizations without government approval. For further examples see citation.

The third outflow issue involves jurisdictions that offer limited, or no tax incentives for international philanthropy. For example in Australia, recipients eligible to receive gifts for which the donor may claim a deduction must be within Australia. Recipients who are not in Australia cannot be deductible gift recipients.⁵⁵

Another main constraint on international philanthropists are counter-terrorism regulations. Philanthropists need to address the migration from a tax-based regulatory scheme to a legal environment modelled on the fight against money laundering and terrorism.⁵⁶ For example, regulations in the U.K terrorism measures prohibits any U.K national or other person within the U.K jurisdiction from knowingly dealing with "funds or economic resources" belonging to listed persons without authorization from the Treasury. These lists include al-Qaida and the Taliban, but also include nations like Belarus, Myanmar, Liberia, Somalia, and Zimbabwe.⁵⁷

Inflow Constraints

⁵³ Id

⁵⁴ Id

⁵⁵ Id

⁵⁶ Id

⁵⁷ Id

The first constraint that grant recipients may face is advanced government approval. Some nations require organizations who receive international funds to report those funds to their governments. For example, in Jordan, foreign funding is subject to the approval of the Council of Ministers. Organizations who receive funding must report the source of funding, the amount of funding, the means of transfer, and the objectives for which the funding will be spent.⁵⁸

The second main constraint are nations that require philanthropic funds to be funneled through government channels before dispersing to the rightful recipients. For example, in Eritrea, international NGOs may only engage in activities through “the Ministry or other concerned government entity.”⁵⁹

Another restraint on recipients can be the burdensome notification and reporting requirements. Although this is not as burdensome as getting government approval prior to funding, it may still undermine the uninterrupted flow of funding to potential recipients.⁶⁰ For example, in Turkey, the law imposes notification requirements relating to the receipt of foreign funding, where foundations must notify Turkish authorities within one month after receiving the funding and associations must notify the government before using the received donations.⁶¹

The last main inflow issue for grant recipients are the foreign exchange restrictions. For example, where the value of foreign currencies is set at official rates far below the parallel market rates, this may act as a barrier to international philanthropy. For example, in Venezuela, currently only transactions through the Central Bank of Venezuela are approved and only at the official rate of 4.3 Venezuelan Bolivar per 1 USD. This is suggested to have a negative impact on philanthropy because the actual rate of exchange is closer to 8 VEB to 1 USD. Additionally, circumventing these restrictions results in severe penalties.⁶²

⁵⁸ Id

⁵⁹ Id

⁶⁰ Id

⁶¹ Id

⁶² Id

In essence, international philanthropy may run into many barriers depending on jurisdiction, funding purpose, and political issues. Philanthropists have several options to deal with these issues and potentially alleviate some of these complex problems. For example, philanthropists can inquire and survey current international philanthropists to learn about specific challenges; they can index the existing barriers to international philanthropy; expand the tools and resources to help foundations navigate the complex legal environment; monitor legal developments across the world concerning philanthropy; support the development of good principles/protocols for international philanthropy; and support efforts to reform laws and policies.⁶³

Proposed Solutions

Increased Regulatory Oversight

Regulatory reform is typically on top of the agenda in centralized legacy circles to address suboptimal institutional design. For example, the IRS division charged with monitoring charities remains understaffed and underfinanced and is only able to audit a small percentage of charities annually.⁶⁴ Remedies could include allowing states enhanced access to IRS information.⁶⁵ The Pension Protection Act of 2006 allowed the IRS to share more information from charity tax records with state officials so they could investigate possible violations of state law. However, the act also established strict controls over how such information could be used; for example, state officials who contact a charity may not say their inquiry was prompted by information obtained from the IRS.⁶⁶

The community is evaluating arguments for and against a national oversight body that is tasked with the supervision of charitable organizations. Community proposals in this context include setting up a new division in the Treasury Department or other federal agency along the lines of the SEC, the FTC, or Britain's Charity Commission.⁶⁷ Others argue that a new agency would be

⁶³ Id

⁶⁴ Perry, Suzanne. "Lack of Serious Oversight of Charities Undermines Public Trust. (Cover Story)." *Chronicle of Philanthropy*, vol. 25, no. 2, Nov.2012

⁶⁵ Id

⁶⁶ Id

⁶⁷ Id

overreach and instead the IRS should focus their resources on “complex” charity organizations with annual revenues that exceed 10 million USD. By concentrating on the understanding of these large and complex charitable organizations, the IRS could extend its capacity to identify and curtail abuse of nonprofit status by opportunistic enterprises which would help preserve the integrity and reputation of America’s nonprofits.⁶⁸

Harness Technology

Technology upgrades provide (decentralized) alternative solutions outside the realm of regulatory top down government sponsored initiatives to address the shortcomings of the charity infrastructure. In particular, technology enables heightened transparency and accountability for charities which is easily implemented and lowers cost. For example, in 2014, a youth coding nonprofit called Hack Club designed a tool to track all the Hack Club’s finances in real time.⁶⁹ In essence, this tool serves as a public ledger that is available to anyone online. Within the ledger, all the nonprofit’s transactions are tracked and recorded in real time and publicly displayed. SnapChat executives donated 1 million USD to Hack Club in support of the nonprofit’s transparency work. Ethereum founder Vitalik Buterin donated \$300,000 USD and Elon Musk donated as well.⁷⁰ As a result, 36 student-run nonprofits have made their finances public using the Hack Club Bank transparency tool.⁷¹

Distributed ledger technologies (DLT) are particularly capable of increasing trust between charitable organizations, sponsors, and beneficiaries. The technology enables real-time tracking of the donation supply chain.⁷² The technology enhances transparency by disclosing sponsor identity, funds’ value, origin, destination, and purpose.⁷³

⁶⁸ Putnam Barber & Steven Rathgeb Smith, *Regulation of “Classic” Community-Based Charitable Organizations*, De Gruyter, (October 31, 2020) <https://doi.org/10.1515/npf-2020-0006>.

⁶⁹ Chirstina Asquith, *The Chronicle of Philanthropy*, August, 2021 pp. 22-23

⁷⁰ Id.

⁷¹ Id.

⁷² Citation: Christie A (2020) Can Distributed Ledger Technologies Promote Trust for Charities? A Literature Review. *Front. Blockchain* 3:31. doi: 10.3389/fbloc.2020.00031

⁷³ Avdoshin, Sergey, Pesotskaya, Elena, “Blockchain in Charity: Platform for Tracking Donations”, *Proceedings of the Future Technologies Conference (FTC) 2020*, Volume 2 (pp.689-701); Farooq, Muhammad Shoaib, Khan,

CHARITYxDAO

DAOs have the potential to address the above identified flaws in the charitable giving process. DAOs are truly global borderless entities that coordinate agency relationships and limit liabilities via smart contracts. DAOs can use elements of profit generation and redistribution in a way that in effect combines capitalistic and socialistic ideas. DAOs allow for the organization of society in economic structures that generate profit while at the same time redistributing resources. DAOs combine elements of socialistic cooperatives with the meritocracy and incentivization of capitalism.

This paper conceptualizes the benefits of DAOs in charitable organizations thorough a case study of a CHARITYxDAO.

The basic concept of the CHARITYxDAO derives from the basic insight that charitable giving has to be fully transparent and hosted by a group of charity experts who have hands-on experience in fostering common good outcomes directly – not as an intermediary or sponsor. In the CHARITYxDAO, only those who have done good and can provide objective and traceable evidence of their actions for the common good are onboarded into the CHARITYxDAO community.

In particular, the CHARITYxDAO mandates that onboarded VAs show evidence of having raised charity donations proactively and individually as well as showing evidence of having distributed those donations successfully to fulfill the donative intent. Only those who demonstrate both 1. Successful fundraising, and 2. Fulfilling the donative intent are eligible for CHARITYxDAO voting associate (VA) status. Once onboarded, newly elected CHARITYxDAO VAs are now also eligible to help select other CHARITYxDAO applicants. The details for this process are explained in Subchapter on onboarding below.

Misbah, Abid, Adnan, “A framework to make charity collection transparent and auditable using blockchain technology”, Computers and Electrical Engineering 83 (2020)

Fixing Charitable Giving

DAOs are ideally positioned to fix the three core identified issues in charitable giving:

1. Lack of Transparency,
2. Power Imbalance, and
3. Legal Incentives.

Increasing Transparency

Modern philanthropic strategies entrust individual donors with the responsibility of identifying which human problems need to be solved with the donor's assets and then provide the perceived appropriate solutions. Because of the focus on a single donor who is often not accountable to the public and can use a private foundation, without public disclosure obligations, to undermine asset allocation transparency, modern charities are often subject to a significant level of lack of transparency.

The CHARITYxDAO uses DLT technology and layer 2 solutions like Polychain (Matic) to address transparency concerns. Through the use of DLT technology, all governance votes and endowment allocation decisions are fully publicly visible and can be audited by the public at will. Moreover, all onchain data is immutable and can be accessed by the public. The CHARITYxDAO Forum allows for public comments in a fully transparent way. Through the public forum comments, the public can directly address and call out perceived inequities and transparency concerns as they may pertain to the DAO.

The public commenting function on the forum helps the CHARITYxDAO internalize information from the edges of the charity ecosystem that otherwise would have no agency in any charitable organization. This new information from the edges of the charity ecosystem further increases the accountability of the CHARITYxDAO to unprecedented levels. It allows the CHARITYxDAO to

continuously iterate on its endowment practices and morph into community structures that are driven by community consensus. The community consensus can morph constantly through the new information that reaches the CHARITYxDAO. This makes the organization much more alert and “live” than many Zombie Charities that have little to no activity and/or public engagement.

The forum comments also help the CHARITYxDAO recruit top talent constantly. The CHARITYxDAO forum comments help the existing CHARITYxDAO VAs identify the most competent commenters. Those help the existing VA community do its job and at the same time become resources that can be leveraged by the VA community. If the information is relevant and material to the CHARITYxDAO work, the commenter may be invited to apply for VA status by providing work for a grant. This helps increase the quality of talent that is onboarded into the CHARITYxDAO VA pool and creates constant onboarding feedback effects. Such feedback effects cannot exist in traditional centralized charitable organizations.

The CHARITYxDAO addresses the lack of transparency through charity expert community audits. CHARITYxDAO’s on-chain governance increases transparency to unparalleled levels and takes the donation out of the hands of the individual donor (who may one-sidedly or mistakenly allocate assets to further the donor’s donative intent). Instead, the asset allocation and policing decisions are put into the hands of the community of CHARITYxDAO VAs. This increases transparency and checks and balances dramatically. The donor is, not simply handing over the assets to a centralized group of individuals (who may be colluding with the sponsor to hide assets etc.) the donor may trust but instead hands the assets over to a community of experts in the particular charitable endeavor the donor has selected. With this asset allocation to the CHARITYxDAO, the donor enables full transparency via community audits of the donor’s endowment purpose. The charity experts in the CHARITYxDAO are responsible for policing the distribution of assets in the endowment in a fully transparent and auditable fashion.

Equity

Modern philanthropic strategies entrust donors with the responsibility of identifying which human problems need to be solved with the donor assets and then provide the perceived appropriate

solutions. Because of these dynamics, modern philanthropy puts far more power in the hands of the individual donor than traditional philanthropy has done in decades. In turn, because of the key role of the donor, most modern charities are highly centralized around the single individual donor or donor family. Minorities and information from the edges of the charity ecosystem do not have agency in this system. Accordingly, modern philanthropy limits the autonomy of grassroots charitable organizations and replaces it with a leveraged and exploitative relationship where the goals of the donor are served above all.

Through community governance, the CHARITYxDAO addresses the power imbalance between the sponsor, the beneficiaries, and the larger charity community and enables a grassroots charitable organization that extends the lifespan and legacy of the philanthropic intent. By giving the power of the endowment to the CHARITYxDAO, the donor relinquishes the control over the assets to gain community governance and community engagement with the donative intent. Rather than giving assets to a centralized entity that has no incentives to relinquish the assets to a larger community but may wish to retain control for their own special interests, the donor ab initio engages the larger community through the endowment. The fully transparent CHARITYxDAO governance ensures that any semblance of special interests in the VA community and the larger charity community as it pertains to the DAO endowment are called out via the forum.

The donor benefits from the enhanced decentralization via the CHARITYxDAO because, rather than having a singular centralized entity promote the donor's interests, the donor gets a community of experts behind his donative intent. The donor can help mold the community to some extent but at the same time the donor releases the control to the community. The relinquishment of control builds trust and community buy in. This in turn, ensures growth and legacy for the respective purpose of the donor and the associated DAO.

Incentive Optimization

The existing regulatory infrastructure in many jurisdictions incentivizes delayed releases of endowment funds and hoarding of assets. Rather than releasing funds according to their donative intent, the assets are often allowed to accrue tax free, resulting in so-called Zombie Charities.

because by the time a donor sees their funds employed for charitable purposes, they are already dead.

In contrast to the existing legacy structures, and depending on the respective DAO design, DAOs are incentivized to immediately release the endowed assets if and when the work for the donation has been finished. The DAO community controls the governance variables under which assets are released and the policies on the asset release. Community audits ensure full transparency and donor intent is fulfilled.

Foundational Beliefs

The CHARITYxDAO community recognizes that decentralized governance as promulgated in Calcaterra and Kaal (2021)⁷⁴ and as first instantiated by the DEVxDAO, among other later instantiations by other DAO communities, provides the necessary decentralized evolutionary and dynamic governance that forms the foundation of the CHARITYxDAO community values and core beliefs. Decentralized governance provides cohesion and longevity in the CHARITYxDAO.

The CHARITYxDAO VAs are united by several core beliefs and insights.

1. Decentralized systems are ideally positioned to support charitable giving
2. Charitable giving has to be organized by experts for experts in charitable fundraising and distribution
3. Donative intent is best accomplished through a crowd-wisdom driven collective reasoning process - in which the donor participates to some extent.
4. The unifying CHARITYxDAO values are of central importance for CHARITYxDAO membership and its resulting long-term cohesion, stability, cooperation, and continual dynamic evolution.
5. The unifying values, as instantiated in the CHARITYxDAO, increase operational efficiency in the CHARITYxDAO.

⁷⁴ Calcaterra & Kaal, Decentralization: Technology's Impact on Organizational and Societal Structure DeGruyter (2021). https://www.amazon.com/Decentralization-Technologies-Organizational-Societal-Structure/dp/3110673924/ref=tmm_pap_swatch_0?_encoding=UTF8&qid=&sr=

Engaging the Donor

Engaging the donor of the CHARITYxDAO endowment into the DAO has long-term benefits for the CHARITYxDAO ecosystem. The donor typically has a large network of charity contacts that can benefit the DAO. Moreover, the donor has often a lot of knowledge about the type of charitable engagement the donor is seeding. This knowledge and influence should be retained for the betterment of the CHARITYxDAO.

Seeding Charity Purpose

To retain donor engagement with the CHARITYxDAO, the donor can designate a particular purpose for the endowment and can help seed the founding members of the DAO the donor wishes to create. Once the founding DAO members are selected and equipped with reputation, the donor can monitor the quality of onboarding decisions and project sponsored by the DAO. Depending on the maturity of the CHARITYxDAO expert pool, the donor may mandate the seeding of a particular group of experts in a new DAO that is dedicated exclusively to the charitable intent of the donor. For this purpose, the donor may simply clone the voting engine of the CHARITYxDAO (or use a plug and play DAO aggregator tool) to set up the new specific charitable purpose DAO expert community.

Public Monitoring

Continuing donor engagement can be ensured through full transparency. CHARITYxDAO transparency in the portal and the forum ensures that the donor can directly monitor any and all charitable actions the VAs are engaging in, including the pipeline of grant applications, the work product provided on the respective grant, all votes by the CHARITYxDAO community and the reputation weights associated with the votes. This allows the donor to provide indirect input on

outcomes in the CHARITYxDAO Forum where his role can be flagged (anonymously if needed) via a special identification/designation. At the same time, the donor does not (necessarily) exercise control in this system as the donor has the same access rights as any public forum participant in the CHARITYxDAO.

Endowment Allocation

Donor engagement can be incentivized through allocating a multisig key (among many - without donor control) to the donor. The endowment wallet that is housed in the CHARITYxDAO legal wrapper can be set up as a multisign wallet with multiple keys for core constituents. The exercise of the multisig wallet keys will ultimately always depend on a CHARITYxDAO vote in the assembly of the CHARITYxDAO association (the legal wrapper – if chosen to be a Swiss Association). As a multisig key holder, the donor will be involved in multisig endowment payment decisions. The single multisig key the donor controls (as part of the multisig endowment wallet in the CHARITYxDAO legal wrapper) allows the donor at least some continuing contribution over the allocation of the assets. Even if the donor does not have a multisig key, each release of assets can be monitored by the donor fully transparently via the CHARITYxDAO interface and forum. While the donor may willingly be outvoted by the CHARITYxDAO in the multisig decision over asset designation, the donor still retains an interest in and engagement with the endowed assets. This benefits the DAO on multiple levels. The ongoing tutelage of the donor helps bring talent and resources to the DAO and enables a continuing fundraising effort. At the same time, the knowledge of the donor and the donor network can continue to seed projects and engagement for the DAO.

Donor Majority Reputation Stake

The donor can also choose to become part of the DAO with a majority reputation stake. This is a less decentralized option that may be available to the donor. In this design, the donor controls 50% of reputation from the beginning and votes on each proposal for endowment distribution with the other members of the DAO who are selected experts. This voting includes the onboarding votes of new DAO members/VAs. Onboarded VAs do not dilute the 50% reputation allocation of the

donor. The donor can always outstake the rest of the collective if the donor so chooses. At the same time, the donor retains the ability to rely on the onboarded charity experts to help fulfill the donor's purpose for the endowment and the donor's charitable intent.

Governance

The CHARITYxDAO governance⁷⁵ is designed to avoid the corruptive effects of existing governance designs in philanthropic and charitable institutions with fungible assets in legacy systems. The CHARITYxDAO's long-term success depends on its ability to maintain the dynamic decentralized fluidity and dynamic decentralized order. Without it, the CHARITYxDAO's values that initially united and reinforced the CHARITYxDAO VAs are at risk of morphing into ever tighter, complex, and hierarchical structures.

Key features

The CHARITYxDAO's long-term success depends on its ability to maintain the dynamic decentralized fluidity and dynamic decentralized order. Without it, the CHARITYxDAO's values that initially united and reinforced the CHARITYxDAO VAs are at risk of morphing into ever tighter, complex, and hierarchical structures.

Several key governance features and system design elements distinguish the CHARITYxDAO:

1. CHARITYxDAO VAship applicants choose to join the CHARITYxDAO only if the values of the CHARITYxDAO as a collective correspond with their own existing skillset, convictions, values, knowledge base, and belief system.
2. The CHARITYxDAO elicits and reinforces each VA's particular skillsets and their respective belief system as it pertains to decentralized charitable giving. As such, the CHARITYxDAO provides a strong affirmation, reinforcement, and feedback loop for decentralized charitable giving.
3. The following decentralized design elements are key to the CHARITYxDAO's long-term success:

⁷⁵ See above Calcaterra & Kaal (2021).

- a. full transparency, e.g. all CHARITYxDAO decisions are fully transparent and accessible by the public and the CHARITYxDAO VAs themselves;
- b. merit identifiers, e.g. CHARITYxDAO VAs' skill, knowledge, and influence is measured through their respective CHARITYxDAO non-fungible reputation token ownership;
- c. decisions in the CHARITYxDAO are made with a voting design that revolves around staking of non-fungible reputation tokens;
- d. non-fungibility of CHARITYxDAO reputation tokens; e.g. merit of a CHARITYxDAO VA is expressed by a non-fungible reputation token that cannot be bought or sold;
- e. Fungibility of VA salaries: VA Salaries are paid in proportion to their respective VA reputation scores. In other words, the reputation salary is paid out in fungible tokens pro rata to reputation score of each VA at the point of payment. This design ensures second order economic effects and indirect economic incentives in the CHARITYxDAO, e.g. CHARITYxDAO VAs are getting paid with fungible tokens in proportion to their non-fungible reputation tokens;
- f. CHARITYxDAO VAs increase their non-fungible reputation tokens by making valuable contributions to and participating consistently in CHARITYxDAO voting pools.
- g. CHARITYxDAO's fungible salary tokens are generated through a diverse set of grantors/sponsors/donors
- h. anonymity of CHARITYxDAO VAs, e.g. after an initial setup and development period with less anonymity, CHARITYxDAO merit identifiers revolve around reputation scores and VAs of the CHARITYxDAO community can predominantly be identified by their respective reputation score in the CHARITYxDAO structure.
- i. The CHARITYxDAO uses a two-vote model on every decision the CHARITYxDAO has to make.
 - i. Two vote model a) loosely coupled (sentiment) vote (no reputation at stake),
b) tightly coupled (final) vote (reputation at stake):
 1. In the loosely coupled vote, CHARITYxDAO VAs can vote their conscience on all issues involved in the vote. No slashing of their

reputation will happen during this sentiment vote. This incentivizes VAs to “speak up” with their vote after careful evaluation of the issues at stake.

2. During and before the tightly coupled vote, CHARITYxDAO VAs can see the vote outcomes from the loosely coupled / sentiment vote. They can see how much reputation was staked by whom on what outcomes, e.g. up (for) and down (against) a proposal. This helps VAs form an opinion on whether they wish to continue voting in the final tightly coupled vote in the same way they voted in the loosely coupled sentiment vote. Very few VAs will decide to vote the same way if they were on the losing side in the loosely coupled sentiment vote. Accordingly, it is reasonable to expect that the overwhelming majority of CHARITYxDAO’s final tightly coupled votes will end in unanimity on the issue at hand. The two-vote design provides a consensus building mechanism for the CHARITYxDAO VA community. Sponsors benefit from this consensus building mechanism because the process helps fulfill donative intent with a community and crowd wisdom validation.
- j. Reputation tokens are generated ONLY for long term valuable philanthropic work and policing of work NOT for business development etc. work that does not enhance the value proposition of the CHARITYxDAO long-term

Reputation Staking for the Common Good

The use of reputation staking metrics in the CHARITYxDAO’s internal governance design serves the common good.

First, it overcomes the all too common polarizing effects and suboptimal vote outcomes of one-token-one-vote voting mechanisms.

Second, the reputation staking design avoids the corruptive effects of fungible token staking because non-fungible reputation has to be built organically through merit and time, it needs to be earned and cannot be bought. Moreover, the non-fungibility of the reputation and ideally its anonymity decreases the attack vectors for the system dramatically because it becomes much harder for internal

and external actors to manipulate and game the system in an effort to improve their own benefits to the detriment of the common good of all participants in the CHARITYxDAO ecosystem.

Third, reputation staking optimally aligns incentives for CHARITYxDAO VAs individually and at the same time aligns their incentives for the totality of the CHARITYxDAO as an institution with its common good objectives. CHARITYxDAO reputation token holders are incentivized to increase their own reputation/utility by engaging in valuable conduct for the community. The common good gets served through this design in particular because the more the aggregated individual reputation of all CHARITYxDAO VAs increases the more the overall CHARITYxDAO value increases and the more the CHARITYxDAO creates value enhancing outcomes for the sponsors and VA community at large. These feedback effects enable a constantly reinforcing feedback loop for good. The transparency of eternally viewable reputation-staking in the CHARITYxDAO incentivizes its VAs to provide long-term positive contributions to the community for good. This transparency enables a consistent, incremental, and stable review process. Yet, individual CHARITYxDAO VA reputation changes dynamically constantly through action and by default also through inaction because VA reputation is inflationary in the CHARITYxDAO design. The design decreases the likelihood of individual and, in turn, community liveness fault because non-use of existing reputation on the individual level leads to inflationary devaluation. This incentivizes action and thus constant value enhancement for good.

To create the proper incentive design in its reputation staking engine, the CHARITYxDAO incorporates several game-theoretical insights:

- The CHARITYxDAO disincentivize betrayal and defection by charging an admission fee, ie. DoS fee to become a CHARITYxDAO VA. Given the sunk cost of joining the CHARITYxDAO, it is more expensive for prospective VAs to cheat because it would be expensive to rejoin even if VAs could be anonymous. The CHARITYxDAO also blacklists VA accounts to incentivize cooperation. KYC protocols further expand those incentives to cooperate.
- To ensure continuous cooperation of CHARITYxDAO VAs, the promise of future cashflows that are paid proportional to the CHARITYxDAO reputation token outweigh their present value.
- The larger the CHARITYxDAO network the more the competition increases among VAs for reputation tokens to receive fungible token salaries that are paid in proportion to reputation tokens. Accordingly, in the CHARITYxDAO design, the loss of opportunity from slashing CHARITYxDAO VA reputation grows as the size of the network increases.

- Anonymity increases the value of the reputation token. As the information asymmetries and incomplete information increase because of the increasing anonymity, the value of the information that derives from reputation tokens increases. When potential business partners have less knowledge of CHARITYxDAO VAs' identity, the knowledge from the number of reputation tokens a CHARITYxDAO VA holds becomes more important. Moreover, the lack of personal knowledge encourages the CHARITYxDAO VAs to devote more effort to fairly policing reputation tokens.
- Punishment for nefarious conduct becomes automated and therefore credible. The CHARITYxDAO reputation staking design also enhances policing and compliance. The value of CHARITYxDAO VA reputation is directly related to how well punishment can be distributed in response to nefarious VA conduct. In the CHARITYxDAO design, algorithms are used to determine nefarious VA conduct. If a CHARITYxDAO VA's reputation was slashed by VA vote, such VA will not be chosen by the algorithm.
- Equity and the common good. The CHARITYxDAO's design enables an equal distribution of power through its reputation-based governance and anonymity. Group identifiers, culture, language, religion, race, physical presence, etc., influence centralized power distribution. Therefore, commonly used identifiers, such as social media profiles and credit scores in centralized legacy systems, among others, play less of a role in the CHARITYxDAO voting designs. The more equal distribution of power in the CHARITYxDAO governance design allows the inclusion of constituents who otherwise have no agency in centralized systems.

Slashing Reputation

- Explain slashing events and background / incentives.

Community Audits

Community audits are a key feature in the governance of the CHARITYxDAO. Community audit revolves around the idea of allowing experts in philanthropy to evaluate other experts. This governance structure of the CHARITYxDAO enables enhanced efficiency of coordination because the VAs in the CHARITYxDAO, with their unique and highly specialized skillsets in the context of philanthropy, are ideally positioned to identify other experts in philanthropy. This allows the identification of candidate VA qualities from the edge of the centralized system in a continuous and iterative stream of information that provides dynamic feedback effects to the system. In other

words, experts in philanthropy that may have moved philanthropic projects but were not recognized by large centralized charitable institutions can apply to the CHARITYxDAO for inclusion and may be considered if the evidence provided is satisfactory to the CHARITYxDAO VA community. As such, the CHARITYxDAO may present an alternative to traditional community based philanthropic endeavors.

The onboarding decision by the CHARITYxDAO VA community may go beyond just project audit but may become a stamp of approval for follow-on investments. The upvote of a project and the associated onboarding decision for a new VA are a community endorsement of the quality and ethics of a philanthropic project. As the scale of the CHARITYxDAO grows, such onboarding decisions may develop a significant signaling function and may serve as a conversation started for follow-on investments. Similar to how centralized institutions rely on the vetting of candidates from other centralized institutions, the CHARITYxDAO may serve as a decentralized oracle for philanthropic endeavors.

Onboarding

The CHARITYxDAO uses two types of onboarding sets:

1. TYPE 1: Projects that raised funds and distributed such funds to the poor / for good can apply for VA status upon providing evidence of their performance with their project to the CHARITYxDAO via the portal forum. Such TYPE 1 VA candidates fall under the following procedures:
 - a. The treasury of the CHARITYxDAO will match the assets the candidate raised
 - b. The value of the assets they raised will be used for the minting of reputation under the DEVxDAO MVPR with a minting ratio of \$1000/Rep1
 - c. The voting engine automatically stakes 50% of the newly minted reputation up for the VA candidate and 50% down against the candidate proposal – then the validation pool starts under MVPR
 - d. The matched assets are held in the smart contract and will be distributed to either 1. The VA candidate, or 2. To the respective project, ONLY IF the candidate can show satisfactory evidence that the matched assets can reasonably be expected to be distributed in the same fashion as the assets the candidate raised him or herself following the earlier fundraise campaign.

- e. Once the project gets upvoted under 1.d. above, the assets will be distributed via milestone votes. In each milestone, the candidate has to provide evidence of fulfilling donative intent and allocation of assets in accordance with the project parameters.
2. TYPE 2: VA candidates can apply for funds from the CHARITYxDAO without providing evidence of fundraising success of the VA candidate. Such TYPE 2 VA candidates fall under the following procedures:
- a. The treasury of the CHARITYxDAO will fund the project presented by the candidate if the CHARITYxDAO VA community upvotes the project
 - b. The value of the assets paid out of the treasury of the CHARITYxDAO will be used for the minting of reputation under the DEVxDAO MVPR with a minting ratio of \$1000/Rep1
 - c. The voting engine automatically stakes 50% of the newly minted reputation up for the VA candidate and 50% down against the candidate proposal – then the validation pool starts under MVPR
 - d. The treasury assets are held in the smart contract and will be distributed to either 1. The VA candidate, or 2. To the respective project, ONLY IF the VA candidate can show satisfactory evidence that the assets can reasonably be expected to be distributed in the fashion indicated on the candidate's application.
 - e. Once the project gets upvoted under 2.d. above, the assets will be distributed via milestone votes. In each milestone, the candidate has to provide evidence of fulfilling donative intent and allocation of assets in accordance with the project parameters.

Conclusion

Philanthropy and charity in the 21st century is becoming increasingly complex as individuals and organizations look for new ways to maximize or exploit current structures. This topic is becoming even more complex as more millionaires and billionaires look for ways to wield their wealth. The CHARITYxDAO provides a powerful way to decentralize the existing legacy charitable organizations and address many of their challenges. Implementation in code will yield interesting experiments and allow to iterate on optimization attempts.

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