

DAOs for Impact

WHITE PAPER

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Executive summary

Decentralized autonomous organizations (DAOs) are emerging structures that use blockchain, digital assets and related technologies to direct resources, allocate capital and organize people. Operating across finance, technology and social media, DAOs have expanded rapidly in recent years. In 2021 alone, the value of DAO treasuries surged by a factor of 40, from \$380 million to \$16 billion. Today, the analytics site DeepDAO estimates that DAO treasuries total \$18.4 billion.¹

As DAOs have grown in scale, they have also expanded in scope. While most well-known DAOs operate in decentralized finance (DeFi), in recent years communities have begun creating DAOs focused on effecting positive change across a number of dimensions, including climate, community building and universal basic income, with the aim of advancing inclusion, equity and sustainability.

Though they constitute a small fraction of the overall DAO ecosystem, Impact DAOs are varied and growing. These novel organizations have the potential to coordinate the interests of a broader group of stakeholders than traditional organizations. Yet they also face challenges and pose risks.

Building upon two previous reports developed by the World Economic Forum in collaboration with the Wharton Blockchain and Digital Asset Project and an international group of experts – *Decentralized Autonomous Organizations: Beyond the Hype* and the *Decentralized Autonomous Organization Toolkit* – this white paper seeks to summarize the nascent but growing field of experimentation in Impact DAOs. It offers seven in-depth case studies of Impact DAOs and, based on this analysis, also presents common themes across these early experiments in using decentralized governance for social impact:

1. Many Impact DAOs' goals are aspirational, but their strategies are clear

Though the Impact DAO space is relatively small, these organizations are often ambitious, with targeted strategies. Impact DAOs aim to help end wars, alleviate global poverty, build and strengthen local communities, streamline charitable giving, contribute to environmental sustainability and more. While the goals of most Impact DAOs remain aspirational, many Impact DAOs are developing well-defined strategies to achieve their ends.

2. Challenges exist, but mitigations are being developed

As with DAOs generally, Impact DAOs face a host of operational, governance, legal and policy challenges. Of the DAOs surveyed for this paper, several confronted significant operational and governance obstacles. To address these challenges, DAOs are developing mitigation strategies. For example, by creating working groups specifically tasked with onboarding and offboarding members, DAOs can streamline community management. In addition, many DAOs are creating their own technology, contributing to open-source tools that can then help others.

3. There is potential to engage broader groups of stakeholders

Community-driven Impact DAOs have the potential to harmonize the interests of a wide group of stakeholders. Unlike many traditional organizations that may hold duties to shareholders above those of all other stakeholders, many Impact DAOs are experimenting with how to balance the interests of a variety of stakeholders, including examining methods of engaging community stakeholders and those served directly in their governance.



Introduction

Though nascent, Impact DAOs are already driving change, revealing insights about the future of social impact.

Decentralized autonomous organizations (DAOs) are novel structures that use blockchain, digital assets and related technologies to allocate resources, direct capital and coordinate people. As the blockchain-enabled ecosystem known as Web3 has expanded in recent years, innovators have built a vibrant ecosystem of DAOs operating across areas as diverse as finance, technology and social media.

Although some of the largest, best-known DAOs are focused on decentralized finance (DeFi), in recent years innovators have begun to develop a diversity of DAOs aimed at effecting positive social change – or Impact DAOs. To date, communities have built Impact DAOs focused on developing a more equitable economy, resilient society and sustainable planet.

Though Impact DAOs represent a fraction of the overall DAO ecosystem, their rapid development has led some to question whether this novel organizational form could inform the development of future social impact work.² These community driven, code-enabled organizations are actively experimenting with methods of engagement, with goals that include harmonizing the interests, perspectives and contributions of a broader group of stakeholders than traditional organizations. Yet Impact DAOs are not without challenges. As with many DAOs, they confront operational, governance and legal and policy obstacles and remain relatively small.

Building upon previous work, the World Economic Forum conducted a series of in-depth interviews with a sampling of leaders in the Impact DAOs space to assess how they are using new technologies to drive real-world change and what opportunities this organizational model creates for social impact efforts, as well as the challenges and risks.

This paper aims to summarize the novel but growing field of experimentation in Impact DAOs for leaders across government, industry and social impact seeking to gain an understanding of how these organizations are being applied to achieve real-world results. It contextualizes Impact DAOs in the broader field of DAOs and Web3 and offers a series of in-depth case studies. It also provides reflections on key themes across Impact DAOs, identifying where these organizations have created common opportunities, encountered similar risks or developed effective mitigations.

This resource builds on previous Forum outputs developed in collaboration with the Wharton Blockchain and Digital Asset Project and an international group of experts – *DAOs: Beyond the Hype* and the *DAO Toolkit*. Using the analysis in these reports related to the core opportunities and challenges posed by DAOs, this paper seeks to analyse the application of decentralized governance to social impact use cases.



1

Impact DAOs overview

DAOs are an emergent phenomenon potentially disrupting areas as diverse as finance and technology. Impact DAOs aim to harness the power of decentralized governance for good.

This section provides an overview of the DAO ecosystem and introduces the concept of Impact DAOs. It also summarizes key themes across Impact DAOs, noting common opportunities, similar risks or effective mitigations.

1.1 What are DAOs?

Decentralized autonomous organizations (DAOs) are structures that use blockchains, digital assets and related technologies to direct resources, coordinate activities and make decisions. For centuries, organizations have used hierarchal management to direct human activity. Today, centralized organizations such as multinational corporations have become some of the most powerful enterprises ever developed.

But centralization can create power concentration, risks and certain inefficiencies. In some cases, it may cause organizations to focus on near-term goals at the expense of broader social considerations. With small leadership teams, centralized organizations tend to restrict decision-making power to a few at the top, with limited transparency for those outside this small circle of decision-makers.³

By contrast, DAOs make use of open protocols and standards to potentially enable individuals around the world to collaborate beyond strict hierarchies, allowing diverse perspectives and contributions. Unlike in a corporation, in a DAO, token-holding members can be enabled to participate directly in the governance and day-to-day operations of their organization. Token-holders may be entitled to propose, vote on and enact changes to the DAO, allowing communities to work cooperatively and collaborate towards shared goals.

In addition to broadening participation in governance, DAOs may also benefit from low barriers to entry and exit, speed, adaptability, transparency and more. With membership in many DAOs conditioned upon token ownership, individuals can join a DAO simply by purchasing a governance token or, as is seen frequently in

Impact DAOs, receiving a token in exchange for a specified engagement or services. This makes it possible for individuals to rapidly join and leave DAOs, enhancing flexibility for members, although potentially adding volatility to the DAO.

DAOs may also benefit from a high degree of customizability; however, this, too, is an area that is still developing. Unlike corporate structures that have been defined over the course of many decades, how a DAO is structured is entirely up to the community that codes it. This flexibility allows for any number of organizational permutations and incentives to be coded, but because these systems are novel, the longer-term outcomes of these design choices are often unknown. While somewhat limited, off-the-shelf governance frameworks, as well as a developing ecosystem of business-supporting-DAO (B2DAO) tooling, are growing to help communities develop a DAO that suits their needs.⁴ DAOs may benefit from enhanced transparency and automation for those able to interrogate the technology. With important information accessible to all with sufficient expertise, DAOs can benefit from this high degree of access. On a related point, making use of smart contracts, or automatically executing promissory code, DAOs can also benefit from disintermediation and increased efficiency.

However, DAOs also confront significant obstacles and pose risks of their own. Coordinating communities across the globe without a central leadership team can be challenging, especially for DAOs that lack clearly defined roles and communication mechanisms. Classical governance challenges, such as voter apathy, also affect DAOs. Moreover, security challenges stemming from the relatively immature nature of some underlying

technologies can create difficulties for DAOs. Perhaps most crucially, DAOs confront an unclear and fragmented legal and regulatory landscape. Without clear legal structures, DAOs may be unable to benefit from many of the advantages that accrue to traditional organizations. Nonetheless, DAOs

have pioneered a variety of mitigations to address these challenges. Previous reports in this series – *DAOs: Beyond the Hype* and the *DAO Toolkit* – offer a deeper analysis of the opportunities, challenges and mitigations common in DAOs today.

1.2 What are Impact DAOs?

An Impact DAO is any DAO that aims to produce a positive social impact. Broadly, DAOs can be categorized according to objective and means. In a previous report in this series, *DAOs: Beyond the Hype*, the World Economic Forum, in partnership with the Wharton Blockchain and Digital Asset Project and an international group of experts, divided DAOs along two axes according to two questions. First, what is their primary objective?

Do they attempt to generate something new, improve the functioning of a community or achieve a specific, limited goal and then disband? Second, in what ways do they attempt to achieve that objective? Do they seek to manage activities, allocate capital or coordinate people? The result of this categorization is the DAO taxonomy, which divides the DAO ecosystem into nine categories based on their objective and means.

TABLE 1 Nine categories of Impact DAOs

		Objective		
		Generative	Associative	Ad hoc
Means	Activity	Functional Power a network or application <i>Bitcoin, Ethereum, Tezos, Avalanche</i>	Governance On-chain management of a community <i>Uniswap, Yearn, ENS, SteemDAO, Illuvium, Sandbox</i>	Task Pursue a specific communal objective <i>UkraineDAO</i>
	Value transfer	Investment Facilitate participant investment activity <i>Metacartel, Olympus Pro, Pleasr, Flamingo, Whale, CityDAO</i>	Philanthropic Fund public goods <i>GitcoinDAO, MolochDAO, EduDAO, KlimaDAO, LexPunk</i>	Special purpose acquisition DAO (SPAD) Buy a unique item or other companies/DAOs <i>ConstitutionDAO, SpiceDAO</i>
	Social	Production Compensate people for work they do <i>dOrg, HumanDAO, Yield Guild Games, Mirror, MODA, Audius, Nouns, Squiggle</i>	Community Networking and coordination <i>Friends With Benefits, Bored Ape Yacht Club, LexDAO, Bankless</i>	Flashmob People come together at a place and/or time

Source: World Economic Forum, *Decentralized Autonomous Organizations: Beyond the Hype*, June 2022: https://www3.weforum.org/docs/WEF_Decentralized_Autonomous_Organizations_Beyond_the_Hype_2022.pdf

As with DAOs generally, Impact DAOs are novel, emergent phenomena. There is no single unified definition of an Impact DAO, just as there is no single agreed-upon definition of a DAO. This report defines an Impact DAO as any DAO that aims to have a positive social impact. Thus, an Impact

DAO can belong to any of the nine categories outlined in Table 1 if at least one of its objectives relates to producing a positive social impact. While many Impact DAOs today are philanthropic, there are important examples of other types of DAOs being developed to support impact outcomes. For

instance, UkraineDAO, an online community focused on helping Ukraine win the war waged against it by Russia, is an ad hoc DAO.⁵ Section 2 of this report presents several case studies of Impact DAOs drawn from across the ecosystem to demonstrate the diversity among this group of organizations.

Impact DAOs present the opportunity to harmonize the interests of a broad group of stakeholders, enhance transparency, adaptability, automation and more. Yet while Impact DAOs present opportunities,

they also face challenges and pose risks. As with DAOs themselves, Impact DAOs may create surveillance potential, security vulnerability, legal and regulatory challenges and more. As Impact DAOs present many of the same opportunities – as well as risks – as DAOs generally, and these have been covered in previous reports, this resource does not provide an analysis of their strengths and weaknesses. Instead, in the following sections it summarizes common themes across Impact DAOs and provides case studies highlighting their application.

1.3 Major themes

In conducting interviews for this report, researchers identified several common themes across Impact DAOs. In this subsection, these themes are presented to characterize the broader ecosystem. Many of the themes included below apply not only to Impact DAOs but also to other types of DAOs. Two companion reports, *DAOs: Beyond the Hype* and the *DAO Toolkit*, provide analyses, tools and frameworks covering DAO operations, governance, law and policy.

1. Many Impact DAOs' goals are aspirational, but their strategies are clear

Impact DAOs represent a small fraction of the overall DAO ecosystem. According to the analytics platform DeepDAO, as of June 2023, DAO treasuries totalled \$18.4 billion worth of assets, with the top five largest DAOs accounting for more than \$10 billion.⁶ By contrast, Gitcoin DAO, perhaps the largest Impact DAO, has \$63 million in treasury assets as of June 2023.⁷

While the Impact DAO ecosystem is relatively small, many of these organizations have significant ambitions and either clear, directed strategies or a method for developing tactics based on experimentation and data collection. The Impact DAOs covered in this report aim to help end wars, contribute to environmental sustainability, eliminate poverty and more. While the goals of most Impact DAOs remain aspirational, many Impact DAOs are actively engaged in achieving their ends.

With the conflict in Ukraine now in its second year, UkraineDAO, for example, has already raised roughly \$7 million worth of aid, which has reportedly been deployed to support groups including minority communities in-country.⁸ Likewise, Gitcoin DAO, the organization governing the Gitcoin platform that enables the funding and development of digital public goods, has already reported disbursed roughly \$50 million in funding to 3,715 public goods projects.⁹

2. Challenges exist, but mitigations are being developed

As with DAOs generally, Impact DAOs face a host of operational, governance, legal and policy challenges. Of the DAOs surveyed for this report, several confronted significant operational and governance obstacles. UkraineDAO, for instance, encountered difficulties of coordination, new member onboarding and more. Big Green DAO has confronted similar challenges of new member onboarding. This is a frequent issue across the DAO landscape, where common operational challenges include planning, onboarding and offboarding. Even where DAOs have developed strong systems of onboarding, ongoing community engagement and participation can be a challenge.

To address these issues, DAOs are developing mitigation strategies. By creating working groups specifically tasked with onboarding and offboarding members, DAOs can streamline community management. Some DAOs, such as Gitcoin DAO, have also developed ways of encouraging long-term contributor engagement. Gitcoin uses steward health cards that measure voting activity and encourage engagement.¹⁰ Understanding that developing and supporting a DAO is an iterative process, projects such as GoodDollar DAO frequently assess the health of their ecosystem and consider how to modify their policies to improve engagement.

3. There is potential to engage broader groups of stakeholders

Community-driven and code-enabled, Impact DAOs have the potential to harmonize the interests of a wide group of stakeholders. Unlike many traditional organizations, some Impact DAOs have chosen to engage the communities they serve directly in their governance. GoodDollar DAO, for instance, makes use of local community ambassadors to ensure that the individuals it serves exercise power in its governance and decision-making. VitaDAO, a philanthropic DAO focused on advancing longevity sciences, engages the research community in its governance and funding decisions.



Case studies

Today, communities are building Impact DAOs aimed at developing advanced scientific research and sustainable economies, addressing poverty and creating inclusive financial tools.

To produce this report, researchers conducted a series of in-depth interviews with a sampling of leaders in the Impact DAO community. Making use of a mixed research methodology consisting of secondary research, primary data analysis and semi-structured interviews, they developed the following series of case studies.

Not every project researched or interviewed is presented here. Instead, this paper presents seven case studies of different types of Impact DAOs to characterize the breadth and activity in this ecosystem. Each case study introduces the DAO, provides an overview of its tangible impact, summarizes its challenges and notes any mitigations the DAO has developed. Importantly, this paper does not endorse any particular DAO, including the legality of any particular DAO discussed. Instead, this paper should be used to better understand the different types of Impact DAOs, as well as their particular benefits and challenges.

CASE STUDY

UkraineDAO

Formed just days before Russia's full-scale invasion of Ukraine, UkraineDAO is an online collective created by Alona Shevchenko, Trippy Labs and PleasrDAO members, established to fund the war effort in Ukraine.¹¹ As the conflict enters its second year, cryptocurrency ("crypto") continues to be a significant source of aid. According to the blockchain analytics firm Elliptic, more than \$212 million worth of crypto had been donated to pro-Ukrainian war causes as of March 2023, including about \$80 million that was allocated to the Government of Ukraine.¹² Funds donated in crypto have reportedly been used to purchase a wide variety of goods ranging from bullet-proof vests and helmets to medical supplies and radios.¹³ Although crypto is also being used to support Russia, Elliptic asserts that pro-Ukrainian crypto fundraising outpaces pro-Russian funding by a factor of 44.¹⁴

UkraineDAO is a task DAO, using an associative, community-based model targeted at raising and then transferring value to pro-Ukraine causes for a specific purpose.¹⁵ To date, UkraineDAO, which was established, in its words, to exploit "the power of Web3 tech and community to defend Ukraine", reports that it has donated roughly \$7 million to the cause paid for with 2,188 ether tokens.¹⁶ Much of this has come from the sale of a non-fungible token (NFT) of a Ukrainian flag. To host its online auction, UkraineDAO has used the

PartyBid auction site, which allows people to aggregate resources and collectively bid for pieces of a digital asset, in this case a representation of the country's flag. Recipients of the DAO's funds include organizations such as Come Back Alive, which helps the armed forces of Ukraine, and the OutRight Ukraine Fund, which supports the Ukrainian LGBT community.¹⁷ Through the use of a DAO, the organization was able to facilitate the fast and traceable donation of funds to these organizations in a time of crisis.

In addition to providing funds, UkraineDAO reports that it has also been working to advance media literacy as a means of combating disinformation campaigns.¹⁸ Likewise, through a partnership with Starling Labs, UkraineDAO has launched Project Dokaz to document Russian war crimes in Ukraine and transmit collected evidence to the International Criminal Court.¹⁹

As with many DAOs, UkraineDAO has confronted challenges of coordination and new member onboarding, despite its efforts to make onboarding simple even for non-crypto-native individuals. Planning, onboarding and offboarding remain challenges for many DAOs, though some are pioneering mitigations such as working groups and delegates specifically tasked with managing these processes.²⁰

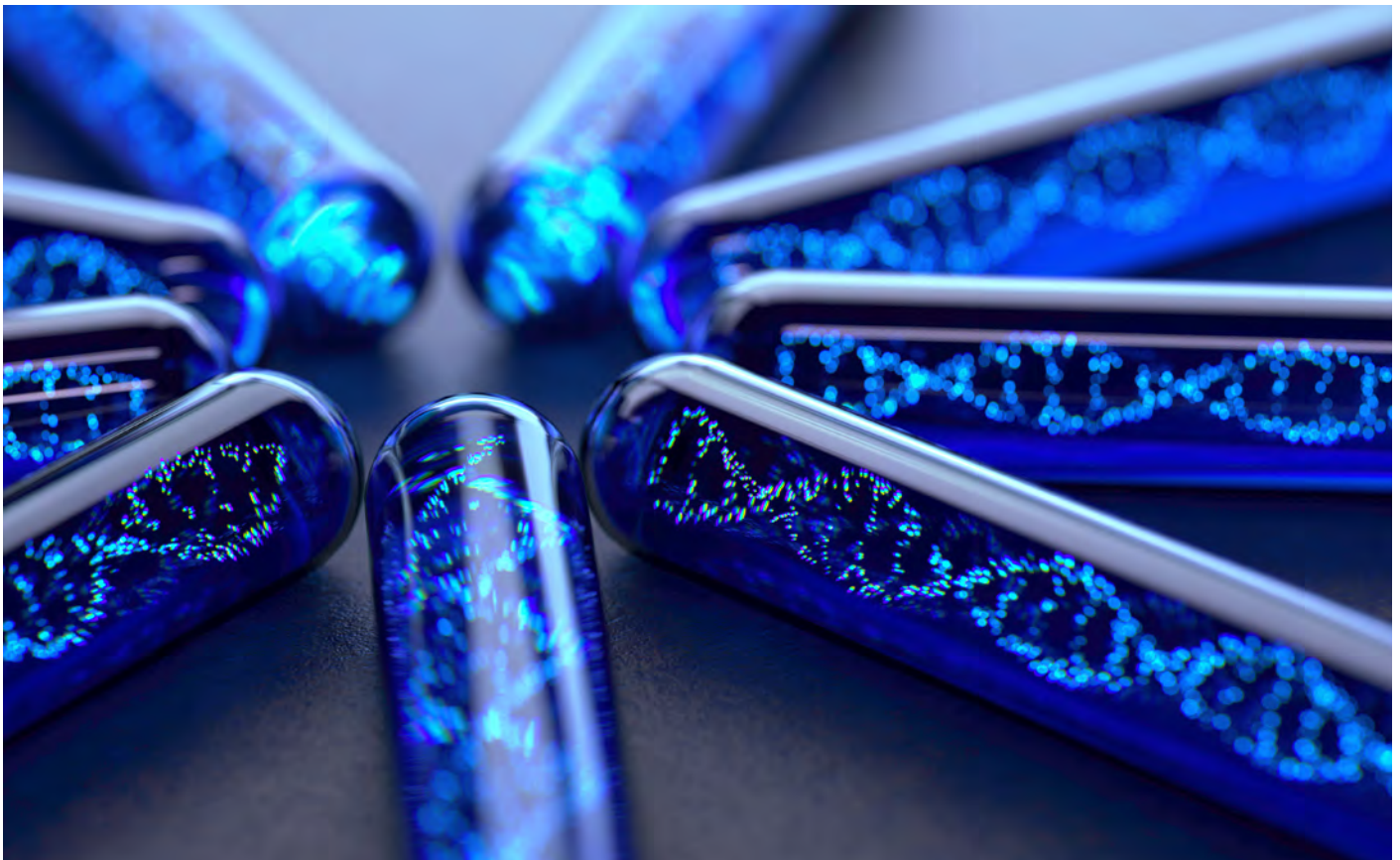
VitaDAO

VitaDAO is an online community focused on funding and advancing longevity science. An example of a generative DAO with associative aspects, it aims to improve lives by funding human longevity research. It identifies, funds and incubates research and development efforts using the mechanisms of decentralized science (DeSci) to potentially reduce the time required for therapeutic development. Principally, VitaDAO sources and conducts research on longevity science initiatives, incubates projects and supports researchers, and makes funding recommendations to its community members, who then vote on a host of different longevity initiatives for funding.²¹

Although VitaDAO is primarily a philanthropic DAO, it also engages community members in the research and analysis phases of its work. An associative network of more than 9,000 individuals forms the core of its community, which is focused on transferring value to research and development (R&D) projects.²² According to VitaDAO, during its initial token distribution, 30% of its token supply was distributed to its community, with the remaining 70% withheld for later usage.²³ In 2023, VitaDAO closed a \$4.1 million fundraising round with members, including Pfizer Ventures. These funds will be used to resource further longevity projects and precede the rollout of the DAO's first biotech start-ups and more.²⁴

To date, VitaDAO reports that it has evaluated more than 100 projects and provided more than \$4 million in research funding.²⁵ For example, it recently awarded funding to Scheibye-Knudsen Lab to analyse certain prescription drugs potentially associated with longer lifespans and healthspans in long-living populations. The experiment seeks to validate these observations in the hope of using several FDA-approved therapeutics for the purpose of expanding human lifespans.²⁶ Other projects research senescent cells, novel activators for Alzheimer's disease and the role of DNA structures in healthy and unhealthy ageing.²⁷

As with many DAOs, VitaDAO has encountered operational and governance challenges. Many DAOs confront governance challenges such as rational apathy and plutocracy, or governance by a few versus a wider community. A variety of mitigations across operational, legal, technical and economic dimensions are being tested to improve outcomes.²⁸ In March 2023, VitaDAO began aggregating governance into seasons, or predefined implementation cycles consisting of a governance and execution phase. With four month-long periods, it aims to focus its community on setting and achieving clear, delimited goals. In addition, its community members have proposed creating an Ambassador Program to delegate external outreach and engagement, a critical role for the DAO, to a select group of champions.²⁹ Season-planning and delegation can mitigate some of the operational and governance limitations these novel organizations face.³⁰



Bitcoin DAO

Bitcoin creates tools and protocols that enable the development and financing of digital public goods, including open-source software, through grants and crowdfunding. To date, it reports having distributed more than \$50 million in funding to grantees, with a \$28.2 billion grantee market cap. Bitcoin is one of the largest and most active generative Impact DAOs, with 3.8 million unique donations to date funding nearly 4,000 projects.³¹ Many of the recipients of Bitcoin grants have gone on to develop some of the most significant organizations in Web3, such as Optimism, Uniswap and WalletConnect. Beyond Web3, Bitcoin reports implementing funding efforts with organizations such as the Internet Archive, Electronic Frontier Foundation and the United Nations Children's Fund (UNICEF).³²

The Bitcoin DAO oversees the community treasury as well as a governance framework for delegates called stewards, who participate in vital ecosystem decisions. Although it is primarily a philanthropic DAO, it also engages community members in the development of public goods.³³ For example, Bitcoin Passport enables individuals to generate a digital identity, allowing them to perform authentication without compromising their personally identifiable information by revealing it to third parties.

As of February 2023, Bitcoin DAO reported building a global community of contributors operating across four workstreams, distributing tens of millions of dollars, and launching decentralized grant protocols that aim to enable communities to fund their needs in a permissionless way.³⁴

Bitcoin's decentralized grant protocols have reportedly been used by crypto-native organizations such as ENS, Fantom and Optimism, as well as traditional institutions such as UNICEF. In December 2022, it supported a funding round with UNICEF. UNICEF Innovate chose 10 projects and contributed 50 ETH to a matching pool.³⁵ The grants round included players such as Kotani Pay, which offers last-mile pay-out services to blockchain businesses, connecting crypto wallets to local payment channels in Africa. Kotani Pay has been used to support gig workers, universal basic income programmes, cash transfers, remittances and more.

To address the challenge of power concentration, Bitcoin Grants uses quadratic funding (QF) to allocate capital according to community choice. QF allocates funds more democratically by prioritizing the number of contributors rather than the amount donated, harmonizing the interests of a group based on community support, rather than plutocracy. In this way, QF can help prevent a resource-rich minority from determining how capital is allocated.³⁶

While Bitcoin DAO has contributed to public goods projects across traditional and emerging sectors, it also faces challenges. As with many DAOs, it confronts the challenge of contributor engagement. Unlike corporations, DAOs may not have permanent workforces incentivized by traditional means such as salaries. But Bitcoin has developed mitigations to address this challenge. Bitcoin DAO makes use of a system of steward health cards that measure factors such as voting activity to encourage participant engagement. By identifying active contributors and rewarding them, DAOs can spur increased participation.



CASE STUDY

Big Green DAO

An associative, philanthropic DAO, Big Green DAO aims to reimagine philanthropy by bringing non-profits into the grant-making process. In Big Green DAO, donors and non-profits collaborate to determine whether and how projects are funded. By bringing subject-matter experts into the decision-making process, it aims to develop more equitable, effective philanthropic practices. While Big Green DAO focuses on gardening and agricultural organizations, its application of a DAO to philanthropy could be applied to many use cases.³⁷

Launched in 2021, Big Green DAO reports having disbursed \$2.2 million, with 117 organizations receiving grants. It operates on a one-contributor, one-vote basis, with grantees and donors receiving the same share of voting power. Big Green DAO is a philanthropic, hybrid DAO, making use of on- and off-chain tools and processes. Likewise, it is linked to an existing legal entity in Big Green's 501(c)(3).³⁸

Big Green DAO engages a governing body, the Committee, offering leadership and supporting the community, which is composed of non-profit grantees and donors. Each contributor holds a token that enables them to vote on governance of the DAO. Contributors can donate to the DAO's treasury, which is the fund from which grants are made. The DAO also funds educational efforts and events related to its mission. When a grant cycle opens, each member of the community can vote on how to disburse funds

to projects from the treasury. Successful grantees are offered unrestricted grants. In addition, they are invited to join the community and offered a token to enable them to participate in future votes. After a year of membership, grantees can destroy their token to reapply for funds and membership or keep their token without reapplying for funding.³⁹

As Big Green DAO experiments with this new philanthropic model, it has encountered challenges. According to its founder, Kimbal Musk, one challenge DAOs face is onboarding. According to Musk, "I would say that the onboarding process is much harder than we expected. So, I'm a techie. I thought it was pretty hard for me, but doable. When you're talking to non-techies, these are people who work in the real world, they build gardens in their communities, they do food justice."⁴⁰ With competing priorities, undergoing extensive DAO onboarding may be difficult for some contributors.

Onboarding remains a challenge across Web3, with DAOs facing operational challenges throughout the contributor engagement process. Still, DAOs have developed a variety of mitigations for this challenge. Some DAOs, for example, make use of localization – enabling local community members to help participants undergo onboarding. By developing strategies for onboarding such as localization, DAOs can lower the barriers to entry.⁴¹

CASE STUDY

Kolektivo

Kolektivo, a generative DAO, is a network of technology and community developers who create tools for local, regenerative economies. Its vision is to help improve the conditions of people and communities today and in the future.

From the perspective of Kolektivo, communities often lack the ability to achieve their goals due to marginalizing factors. If these communities had the opportunity to direct their resources, some of their values would, Kolektivo's founder Luuk Weber believes, focus on conservation and local economies, and on envisioning how nature and sustainability can be integrated into trade and commerce. He sums up the challenge as: "We don't have our own money that embodies our own values."

Starting as a small pilot in 2018, and remaining small compared to other DAOs, Kolektivo has issued around \$50,000 in micro grants to community projects. It has run experiments to enhance local trade, and envisions developing ecological impact credits that will enable regenerative economies. The founding team believes that, in many

ways, experimenting with these concepts would not have been possible without a DAO and blockchains because these open-source technologies can offer a low-cost and open infrastructure with global interoperability. This open technology stack makes it affordable for community groups such as Kolektivo to start creating a system within months rather than years. But there are challenges.

Designing suitable and encoded robust governance is difficult. Traditional ways of distributing ownership may be easy because they are familiar. But configuring roles and responsibilities in new frameworks can be a challenge because doing so requires clarity in terms of both roles and disclosure, and these novel designs may miss the human aspects of interaction and conflict resolution. These are challenges that Kolektivo is continually navigating. The team asserts that technology is only part of the solution, however. Although participants to the DAO vote on grants on-chain, they argue that it is more important to find the right steward for each project: a knowledgeable person and mentor who can help the project participants.

CASE STUDY

Endaoment

Endaoment.org is a non-profit using blockchain to improve its operations. Endaoment is a community foundation that is required to make its financials public, but existing systems for reporting and analysing financials may not be easy to use.⁴² The ability to not only streamline operations but also demonstrate donations and payments on an open blockchain can help achieve transparency, recording a “paper trail” of the organization’s activities. Since 2020, Endaoment reports facilitating almost \$52 million in donations and \$37 million in grants, while onboarding more than 7,000 non-profits to its platform.

Although Endaoment is a traditional non-profit, it functions as a token-powered, smart contract-enabled entity. This means that, in addition to adhering to the legal requirements of a non-profit, public benefit corporation,⁴³ it publishes its transactions on the Ethereum blockchain. This level of transparency, as well as the ability to enable the charitable giving of digital assets, accomplishes two goals. First, it provides immutable evidence of transactions for those with the technical skills to investigate it. According to Robbie Heeger, Endaoment’s President and Chief Executive Officer, “There are ... aspects [of a DAO that] are incredibly beneficial – full transparency of the grants over time, for example. This is a level of transparency that isn’t typical in non-profit.” Second, it expands the potential donor pool to include, often, a young and tech-savvy demographic. By encouraging the

charitable giving of digital assets, Endaoment can not only help non-profits accept new forms of donations, it may also simplify and streamline giving for digital asset holders.

Unlike many Web3 companies that attract blockchain and Web3 developers, Endaoment tends to attract talent from the non-profit space. This can be both a benefit and challenge: a benefit in that talent is experienced in charitable giving and operations, and a challenge in that the novel infrastructure of Endaoment necessitates training. Even with this challenge, however, it has found that those from the traditional non-profit space are often interested in the operational improvements that blockchain can provide, and how this can streamline accounting and donation operations. But there are additional challenges. Building donation and accounting tools for blockchain systems is novel, and these systems cannot be purchased off the shelf. As a result, Endaoment’s software development company, Endaoment.Tech, has had to build its own infrastructure and systems, which requires not only technical skill with an understanding of non-profit systems but also the additional expenses of external audits and security. Although this can enhance efficiency and transparency, the lack of tooling systems geared towards philanthropic Web3 organizations may add expense and time, a problem that many DAOs encounter, and a challenge that has been observed in related research.⁴⁴

CASE STUDY

GoodDollar DAO

The GoodDollar protocol enables anyone to receive GoodDollar tokens daily through a digital, privately funded UBI programme. GoodDollar aspires to expand the control and stewardship of the system to the participants. This requires the development of rights tied to each token that can enable members to vote and participate in the system. GoodDollar faces the challenge of how to design the ecosystem with incentives to keep it running smoothly while meeting its goal: to deliver privately funded UBI globally, sustainably, at scale.

Although blockchain, smart contracts, tokens and related technologies can provide the tools to operationalize precise incentives tied to particular behaviour, engagement and participation remain a challenge.⁴⁵

Who gets to participate? And what are the incentives? The GoodDollar founding team did not want to incentivize their community with expectations of quickly rising asset values,

but instead aimed to link money to its values: community, mission and service. Optimizing systems to create an incentive for values separate from money can be difficult, as has already been researched.⁴⁶ To operationalize this, GoodDollar believed that there must be two tokens: the currency token used to pay out UBI (the GoodDollar token or G\$) and a token that could not be traded or sold but used only to participate in community governance of the enterprise (the GOOD token).

The value behind G\$ is made possible by sourcing a range of cryptoassets to fund the monetary reserve that collateralizes the token. Financial supporters of G\$ receive GOOD tokens. Because it is hard to know the eventual outcome of a voting body, GoodDollar has split GOOD tokens on a 50/50 basis, with 50% tied to supporters, who fund the ecosystem, and 50% tied to recipients. Because much of this structure is novel, the team conducts reviews and adjustments on an annual basis.

Conclusion

Building upon previous research, this white paper has provided an overview and analysis of the Impact DAO landscape for leaders in government, industry and social impact seeking to engage with this dynamic area of technology for good. It has provided an analysis of important themes in Impact DAOs, identifying where these communities have created similar opportunities, encountered common challenges or developed mitigations. It has also provided seven case studies that present a coherent, representative narrative about how Impact DAOs are creating change today, as well as the challenges they face.

Like DAOs, and Web3 more broadly, Impact DAOs are a nascent phenomenon. Though they have the potential to drive positive social change while harmonizing the interests of a broad group of stakeholders, they also confront challenges and pose risks. The future remains uncertain for Impact DAOs, but they have already made progress towards their goals and, as experiments in governance, offer valuable lessons.



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Endnotes

1. DeepDao, Organizations: <https://deepdao.io/organizations>.
2. Scott Moore, DAOs Are the New Way of Impact Work, CoinDesk, 1 July 2022: <https://www.coindesk.com/layer2/futureofworkweek/2022/07/01/daos-are-the-new-way-of-impact-work/>.
3. The primacy of corporate profits is a concept that has been elevated over the past 50 years, exemplified by the work of economist and Nobel laureate Milton Friedman; see Milton Friedman, A Friedman Doctrine – the Social Responsibility of Business Is to Increase Its Profits, The New York Times, 13 September 1970: <https://www.nytimes.com/1970/09/13/archives/a-friedman-doctrine-the-social-responsibility-of-business-is-to.html>.
4. Rob Reich, Mehran Sahami and Jeremy M. Weinstein, System Error: Where Big Tech Went Wrong and How We Can Reboot, Stanford University, Freeman Spogli Institute for International Studies, 7 September 2021: <https://fsi.stanford.edu/publication/system-error-where-big-tech-went-wrong-and-how-we-can-reboot>: “Measuring ticket cost is easy; measuring environmental impact is much harder. Even more difficult is determining how to optimize for more fundamental ideals such as justice, dignity, happiness or promoting an informed democracy.” See also, on the challenges with finding expertise in creating governance models: Crypto Research & Design Lab, CRADL Report: Protocols and Inclusion in Web3: https://docs.google.com/presentation/d/1K9R_tdZvdMpFxFxS6j8GOXX9nbk-PaesgZ3FEUaitT8/edit#slide=id.g192e37515e5_1_266.
5. UkraineDAO, Our Mission: <https://daocentral.com/dao/ukraine>.
6. DeepDao, Organizations: <https://deepdao.io/organizations>.
7. DeepDao, Gitcoin: https://deepdao.io/organization/aca77a4e-ecb1-4eb3-a722-979977a52eb4/organization_data/finance.
8. Oscar Holland, NFT Backed by Pussy Riot Member Raises \$6.7 Million for Ukraine, CNN, 3 March 2022: <https://www.cnn.com/style/article/ukrainedaο-pussy-riot-nft-flag-war-fundraising/index.html>.
9. Gitcoin, Fund, Build and Protect What Matters: <https://www.gitcoin.co/>.
10. Gitcoin, Rules of Engagement: <https://gov.gitcoin.co/t/introducing-steward-report-cards/8712>.
11. Oscar Holland, NFT Backed by Pussy Riot Member Raises \$6.7 Million for Ukraine, CNN, 3 March 2022: <https://www.cnn.com/style/article/ukrainedaο-pussy-riot-nft-flag-war-fundraising/index.html>.
12. Elliptic Connect, Crypto Donations to Ukraine and Russia: Breaking Down the Numbers, 3 March 2023: <https://hub.elliptic.co/analysis/crypto-donations-to-ukraine-and-russia-breaking-down-the-numbers/>.
13. Amitoj Singh, Ukraine Details What Crypto Donations Are Being Spent On, CoinDesk, 11 March 2022: <https://www.coindesk.com/policy/2022/03/11/ukraine-details-what-crypto-donations-are-being-spent-on/>.
14. Elliptic Connect, Highlights and Insights: Week Ending April 14th 2023, 14 April 2023: <https://hub.elliptic.co/news/highlights-and-insights-week-ending-april-14th-2023/>.
15. World Economic Forum, Decentralized Autonomous Organization Toolkit, 17 January 2023: <https://www.weforum.org/reports/decentralized-autonomous-organization-toolkit/>.
16. Ukraine DAO, About Ukraine DAO: <https://ukraine-dao.notion.site/Ukraine-DAO-3a0e63c6190b4796890dec5c72a94872>.
17. Elliptic, Live Updates: Ukraine Government Turns to Crypto to Crowdfund Millions of Dollars, 11 March 2022: <https://www.elliptic.co/blog/live-updates-millions-in-crypto-crowdfunded-for-the-ukrainian-military>.
18. Twitter, Ukraine DAO, 1 May 2022: https://twitter.com/Ukraine_DAO/status/1520838376852762624.
19. USC Dornsife, Center for Advanced Genocide Research, Starling Lab and Hala Systems File Cryptographic Submission of Evidence of War Crimes in Ukraine to the International Criminal Court, 6 October 2022: <https://dornsife.usc.edu/cagr-news/news/2022/06/33571-starling-lab-and-hala-systems-file-cryptographic-submission-evidence-war-crimes>.
20. World Economic Forum, Decentralized Autonomous Organization Toolkit, 17 January 2023: <https://www.weforum.org/reports/decentralized-autonomous-organization-toolkit/>.
21. VitaDAO, Longevity Projects Funded by VitaDAO: <https://www.vitadao.com/projects>.
22. VitaDAO, Contribute to VitaDAO: <https://www.vitadao.com/contributors>.
23. VitaDAO, Discover the VITA Token: <https://www.vitadao.com/vita-token>.
24. John Cumbers, Longevity Startup VitaDAO Raises \$4.1m, Backed by Pfizer, Balaji Srinivasan, Forbes, 30 January 2023: <https://www.forbes.com/sites/johncumbers/2023/01/30/longevity-startup-vitadao-raises-41m-backed-by-pfizer-balaji-srinivasan>.
25. VitaDAO, Longevity Projects Funded by VitaDAO: <https://www.vitadao.com/projects>.
26. VitaDAO, Scheibye-Knudsen Lab: <https://www.vitadao.com/projects/scheibye-knudsen-lab>.
27. VitaDAO, Longevity Projects Funded by VitaDAO: <https://www.vitadao.com/projects>.
28. World Economic Forum, Decentralized Autonomous Organization Toolkit, 17 January 2023: <https://www.weforum.org/reports/decentralized-autonomous-organization-toolkit/>.

29. Sarah Friday, VitaDAO Letter: 'Tis the Season (of Governance), VitaDAO, 28 March 2023: <https://www.vitadao.com/blog-article/vitadao-letter-tis-the-season-of-governance>.
30. World Economic Forum, Decentralized Autonomous Organization Toolkit, 17 January 2023: <https://www.weforum.org/reports/decentralized-autonomous-organization-toolkit/>.
31. Gitcoin. Empowering Communities to Fund and Build What Matters: <https://impact.gitcoin.co/>.
32. Ibid.
33. World Economic Forum, Decentralized Autonomous Organization Toolkit, 17 January 2023: <https://www.weforum.org/reports/decentralized-autonomous-organization-toolkit/>.
34. Gitcoin, Active and Past Proposals: <https://gov.gitcoin.co/>.
35. BanklessDAO, UNICEF x Gitcoin Collaborate to Revolutionize Philanthropy, 14 December 2002: <https://banklessdao.substack.com/p/unicef-x-gitcoin-partner-to-revolutionize>.
36. Gitcoin, Gitcoin Grants – Quadratic Funding for the World, 29 August 2022: <https://www.gitcoin.co/blog/gitcoin-grants-quadratic-funding-for-the-world>.
37. Big Green DAO: <https://dao.biggreen.org/home>.
38. Ibid.
39. Ibid.
40. Jeff Wilser, Kimbal Musk and His Big Green DAO, CoinDesk, 11 May 2023: <https://www.coindesk.com/business/2022/06/02/kimbal-musk-and-his-big-green-dao/>.
41. World Economic Forum, Decentralized Autonomous Organization Toolkit, January 2023: https://www3.weforum.org/docs/WEF_Decimalized_Autonomous_Organization_Toolkit_2023.pdf.
42. Sophia Kovatch, How to Evaluate a Nonprofit Before You Donate, ProPublica, 28 December 2022: <https://www.propublica.org/article/how-to-evaluate-charity-before-you-donate>.
43. Endaoment, Legal Documentation: <https://docs.endaoment.org/governance/legal-documentation>.
44. CRADL Report, Looking Ahead to 2023: https://docs.google.com/presentation/d/13ODQwC0yx3ZVm7g8h_7GbjF2qk2JBdhZZYFPDSVsiM/edit#slide=id.g1e02886e2aa_0_20.
45. CRADL, Protocols and Inclusion in Web3: https://docs.google.com/presentation/d/1K9R_tdZvdMpFxFs6j8GOXX9nbk-PaesgZ3FEUait8/edit#slide=id.g192e37515e5_1_266.
46. Rob Reich, Mehran Sahami and Jeremy M. Weinstein, System Error: Where Big Tech Went Wrong and How We Can Reboot, pages 12–15: <https://politicalscience.stanford.edu/publications/system-error-where-big-tech-went-wrong-and-how-we-can-reboot>.



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