DAO Basics

WEB3 citizen
YOUR INFINITE GARDEN GUIDE

Introduction

In this guide you will find:

→ An introduction to DAO challenges.

→ An overview of DAOs, including benefits of DAOs and DAO types.

→ Governance: governance principles, channels, structures & tooling.

→ Contribution pathways and incentives in DAOs.

Since the inception of the first Decentralized Autonomous Organization (DAO), DAOs have transformed how we think about collective organization.

DAOs offer a flexible framework for communities to unite behind a common purpose. DAO purposes vary and can include anything from raising funds to owning artwork to collectively governing a finance protocol. DAOs reach consensus through governance mechanisms set on smart contracts.

The number of active DAOs continues to rise, reaching a peak of 24K DAOs in 2023.

DAO Challenges

Main Challenges

The first DAO challenge emerged with Genesis, or as it became known, The DAO.

Within a month of its establishment, the first-ever DAO faced a security breach: a coding loophole in its contract enabled a hacker to drain The DAO's funds. The incident resulted in a significant loss of trust in The DAO's security and subsequent dissolution.

DAO frameworks emerged as a way to establish trustworthy foundations for new organizations. Over time, new governance experiments emerge and governance design continues to improve, enabling a surge in DAO numbers.

> **DAOS USUALLY STRIVE TO ADDRESS THREE MAIN CHALLENGES**

Building gradual decentralization

To move away from hierarchical structures and centralized decision-making, a DAO should prioritize distributing power. However, rushing into decentralization can also hinder establishing a solid incentive design that enables the DAO to scale efficiently.

Before decentralizing a project, it's crucial to ensure that there is a sizable amount of eligible community members who are interested, informed, and motivated.

Additionally, appropriate incentives should be established to encourage informed participation. Otherwise, a DAO may struggle to establish a solid foundation of governance with active participants and decentralized decision-making.

Lack of participation and voter apathy

Ideal participation involves a motivated community member with access to information, seeking to engage in discussion, voting, or contributing their skills.

Even the most active DAOs struggle to create a sense of active ownership and compromise. As we will later see, in the best cases, DAOs achieve a maximum of 40% voter participation.

Low participation raises concerns about the legitimacy of DAO decision-making and prompts us to consider how to build the right kind of participation incentives.

DAOs approach participation differently:

- ⊗ DAO Tooling to increase access to information and discussion.

- ⊗ Designing small aligned decentralized structures.

- ⊗ Introducing compensation.

Trust and transparency

Members are not willing to remain in an organization they don't trust.

Building trust requires transparent communication, easy access to information, and reasonable expectations at every step

Transparency also requires accountability over wrong-doings and reasonably disclosing information about plans and interests involved. This generates a positive feedback loop: when community members see an organization as trustworthy, they are more likely to participate in its development.

During 2023, we have conducted extensive research to assess the current DAO landscape and how its key players address governance. You can find the results in The State of DAOs 2023.

Overview of DAOs

With organizational challenges and no one-size-fits-all solution: Is it worth continuing to build DAOs? Why would organizations risk losing efficiency?

The Case for DAOs

DAOs enable large-scale coordination while giving ownership and voice to the many with one aim: reach a consensus on which actions are worthwhile and align with a mission.

In the words of the Aragon Manifesto:

"Decentralized organizations change
our relationship with governance:
from something that is imposed upon us,
into something we choose to opt into."

DAOs continue to be built because Web3 communities value having a say in the rules that govern their organizations.

Benefits of DAO Frameworks

MOTIVATED MEMBERS THROUGH SELF-SELECTION

MEANS FOR CAPITAL DISTRIBUTION

PROTECT AGAINST POWER CENTRALIZATION

EMPOWERS STAKEHOLDERS THROUGH INCENTIVES

As a framework for decision-making, DAOs provide unique benefits:

- Community self-selects, bringing motivated members willing to invest time and effort.
- DAOs enable efficient capital distribution among members and contributors.
- Empower stakeholders with community and financial incentives.
- Protect against fraud by providing a framework to safeguard treasury funds against capture.

DAOs definitely would not be as attractive without the "autonomous" part. Smart contracts and tried and tested frameworks are central to why organizations keep choosing to decentralize into DAOs. We have seen many financial, infrastructure and social communities implement decentralized structures safely using smart-contract-based governance frameworks to aggregate, achieve consensus, and execute decisions.

Implementing appropriate structures and mechanisms for incentive is crucial. Governance design should address DAO challenges.

DAO Types

A DAO can be classified through what it aims to achieve, its core mission.

Protocol DAOs govern and manage a decentralized protocol or dApp.

Investment DAOs aim to pool funds and invest for the development of a specific app.

Social DAOs focus on social capital. Their missions and purpose vary form community to community, but their value usually lies with collaboration towards a unifying purpose (for example, building a free internet) or exclusivity (NFT clubs).

Grants DAOs provide a way for the community to direct funds towards projects that boost the DAO's mission or projects within their ecosystem.

Impact DAOs are focused on creating positive externalities and improving specific causes by fundraising and allocating resources to them.

Service DAOs work similarly to agencies or consulting organizations by providing specific services to other protocols, foundations or DAOs. These include services, such as design, management, talent recruitment or legal services.

Media DAOs provide a way to organize around producing and distributing news and information.

A DAO's mission can change and different types of DAOs are not mutually exclusive. While a DAO may add some types, its primary mission tends to remain. For instance, as protocols develop, many choose to establish grants structures to allocate funds to the protocol's ecosystem. This is the case of Compound, Arbitrum, and Aave, among others.

Governance

Governance involves various systems and structures that enable decision-making in an organization.

DAOs emerged as a new path to move away from centralized decision-making and into governance by and for those involved in a specific purpose. Effective governance in DAOs is complex and encompasses diverse aspects.

DAOs decentralize decision-making by transferring power in tokens to individuals involved in advancing the organization's mission. Governance tokens allow DAOs to account for their interests through participation in governance.

In any organization, unilateral decisions made by a person or group may be self-serving and not in the best interest of the collective mission. DAOs are no exception. DAOs revealed that self-interest decision-making can still be present, as members can influence others and vote following their own interests instead of the DAO's mission. Concentrated voting power on an individual or group can aggravate this, as whale token-holders can independently influence the organization's path by defining voting outcomes proposals.

Effective governance also faces ongoing difficulties, such as providing members with a clear understanding of the topics and the decision-making process. Furthermore, DAOs must build participation mechanisms and keep members engaged through appropriate incentives to foster community ownership and contribution.

In this section, we provide an outline of how DAOs approach effective governance design.

Designing Governance
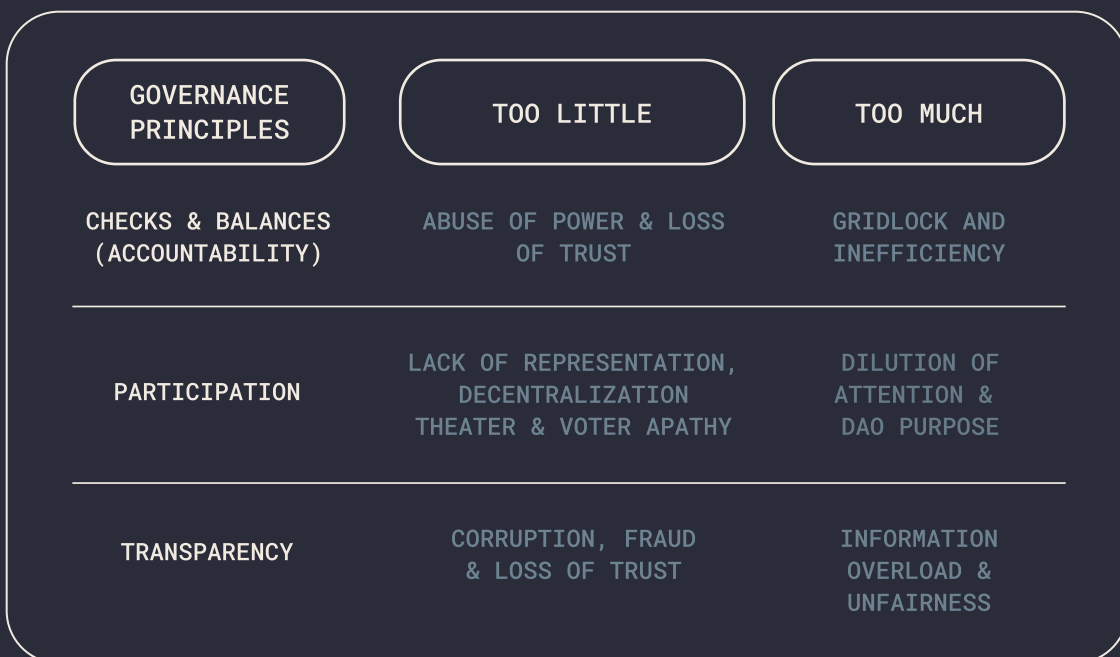
Governance Principles

Most DAOs strive to achieve effective governance by balancing three core principles.

GOVERNANCE PRINCIPLES	TOO LITTLE	TOO MUCH
CHECKS & BALANCES (ACCOUNTABILITY)	ABUSE OF POWER & LOSS OF TRUST	GRIDLOCK AND INEFFICIENCY
PARTICIPATION	LACK OF REPRESENTATION, DECENTRALIZATION THEATER & VOTER APATHY	DILUTION OF ATTENTION & DAO PURPOSE
TRANSPARENCY	CORRUPTION, FRAUD & LOSS OF TRUST	INFORMATION OVERLOAD & UNFAIRNESS

TRADE OFFS BETWEEN MAIN PRINCIPLES

Ensuring accountability requires transparency and active member participation. Members should be able to voice their opinions on the DAO. This creates an avenue to raise concerns when there may be abuse of power or overspending. However, finding the right balance is key, as too much participation can lead to gridlock and bring all actions to a halt.

Participation is key for a DAO to be governed by and for the community. It ensures that decisions are not being determined by a small group. It also enhances the legitimacy of judgments by aggregating the community's concerns and ideas.

Excessive participation can dilute the DAO's mission by diverting focus toward minor tasks. To better understand this, we can look at Maker DAO, where the proliferation of missions and the pursuit of new avenues led to the need of a restructuring plan. "Endgame" aims to create new mission-specific subDAOs to better align their efforts with their core purpose.

Transparency is a crucial aspect that underlies both of the other principles. As we have covered in the introduction, it enables stakeholders to understand and trust the organization's mission, participate and contribute to it, and serve as a steward to "check" on its powers. There can be no form of meaningful participation when there is no clear vision of the DAO's operations.

DAOs ensure transparency through channels such as community calls, forum discussions, and more. Striking a balance between providing too much or too little information is key.

"Community must feel valued, else they may disengage from the DAO altogether."

Off & On Chain channels

A DAO may use various on-chain and off-chain tools and applications to achieve its governance objectives.

While on-chain processes may enhance the security records and proposals, off-chain tools facilitate operations that may require a different level of protection in a more cost-effective, flexible, and time-efficient manner.

	ON CHAIN GOVERNANCE	OFF CHAIN GOVERNANCE
SECURITY	HIGHER	AVERAGE
COST	HIGHER	LOWER
FLEXIBILITY	LOWER	HIGHER

Models and frameworks

Frameworks provide a way for DAOs to manage key aspects of user participation on-chain, such as electing representatives, aggregate voting, in a safe and transparent manner. These can and should be complemented with DAO tooling to enhance other aspects of collaboration and decision-making.

FRAMEWORK	CATEGORY	ABOUT	USED BY
MOLOCH	MINIMAL FRAMEWORK	SIMPLE MAJORITY WITH NO QUORUM NEEDED	THE RAID GUILD, THE LAO
ARAGON	OPTIMISTIC FRAMEWORK	DEFAULTS TO EXECUTION UNLESS CHALLENGED	DECENTRALAND, LIDO
COMPOUND GOVERNOR	SMART CONTRACTS	ALPHA HAS FIXED VALUES PARAMETERS. BRAVO ALLOWS FOR 'ABSTAIN' VOTE	COMPOUND, NOUNS, UNISWAP
TALLY	FRAMEWORK & PLATFORM	ENABLES VOTING, DELEGATING AND SUBMITTING PROPOSALS ON CHAIN	ENS, RADICLE, GITCOIN
AGORA	VOTING PLATFORM	ENABLES VOTING, DELEGATING AND SUBMITTING PROPOSALS ON CHAIN	OPTIMISM, UNISWAP, ENS

SELECT
DAO FRAMEWORKS
& PLATFORMS

DAO Tooling

DAO Tooling is a cornerstone for governance.

Appropriate governance needs to aggregate and manage large-scale discussions, voting, operations, and granular permissions both on and off-chain. Tooling can provide a DAO the flexibility to pick and choose how they want the community to be designed.

This can range from choosing communication channels that encourage community feedback to platforms that simplify resource distribution or managing compensation.

Not leveraging the proper tooling to encourage participation, transparency, and efficiency can lead to an imbalance of governance principles.

SNAPSHOT
Decentralized off chain voting channel.
It allows to create and vote on proposals at a lower cost and with flexibility.

DISCOURSE
An open source discussion platform. DAOs can run and manage their forums and mailing lists with this tool.

KARMA
Tools that showcase reputation onchain. Karma GAP for grantees and Karma Delegates showcase delegates' activities.

Check out 0xtangle's Community Tooling.

Governance Structures

Designing the proper structures and roles is critical when aiming to decentralize an organization. Building gradual decentralization should be done according to both the specific organization and the incentives you wish to create.

Roles vary from DAO to DAO, but usually, you will be able to find the same stakeholders:

- ⊛ **Community**: the broader people who use, or engage with the DAO.

- ⊛ **Token holders** who vote or delegate their voting power. Ideally, they voice their opinions and rationale.

- ⊛ **Service providers** are hired for a specific project or fulfill a specific need for the DAO.

- ⊛ **Delegates** and other active contributors who vote and build the DAO mission following its values.

- ⊛ **Governance team** that lead decision-making, including committee, subDAO, among other members.

- ⊛ **Leaders or founders** that lead the DAO and are in charge of its development.

DAOs establish decentralized structures from the beginning and as they grow. These governance bodies perform various functions and may be involved in product development or undertake specific tasks. These tasks can range from HR-related duties ensuring other governance bodies remain accountable.

DAOs often use one of the following bodies:

- ⊛ **Councils and Committees** have representatives to vote or perform a task on behalf of the DAO. Some, like The Graph Council, are in charge of various functions, such as overseeing the Foundation's operations, protocol upgrades, and more. While other bodies manage only one task.

- ⊛ **Working Groups** or **Guilds** according to skillset. In Gitcoin, for instance, contributors are set on workstreams according to tasks.

- ⊛ **SubDAOs** with granular permissions within the main DAO's ecosystem. These can be especially useful when the DAO has scaled.

> "SubDAOs allow groups to create their own ownership structure while tying value back to the originating entity."

Roles across a DAO

CORE GOVERNANCE TEAM

DELEGATES & ACTIVE CONTRIBUTORS

LEADERS & FOUNDERS

COMMUNITY
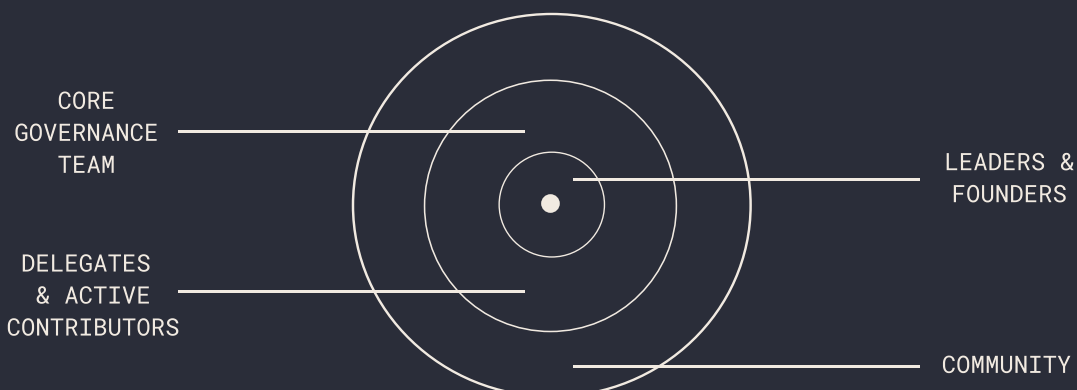
DAOs that have implemented a SubDAO structure include Radicle, The Graph, Nouns, and a post-Endgame Maker DAO.

To prevent overwhelming responsibilities and ensure that each structure fulfills its role, DAOs should be structured based on their stage of development. Over the past two years, the number of scaling DAOs has increased significantly. With this growth, subDAOs and other decentralized structures within a main DAO have become more common. Nevertheless, some DAOs, like Gnosis or Compound, still operate using a minimalist design.

The guiding rationale behind creating structures should always be to design an efficient and effective governance ecosystem that avoids an imbalance of the main governance principles.

Contribution Paths

→ ## How to Contribute?

In 99% of DAOs, less than 0.5% of token holders vote

DAOs have a key issue of lack of participation. Although they have the unique ability to involve communities, it can be challenging to maintain their active commitment over time. To do so, most DAOs offer opportunities to contribute meaningfully to the organization's objectives.

Participation can take many forms, including:

- ⊛ building towards the DAO's mission through available programs.
- ⊛ voting on and discussing improvement proposals.
- ⊛ becoming a delegate to represent other token holders' interests.
- ⊛ applying for grants to develop the DAO's initiatives.

DAOs can also create incentives to sustain contributions in the long term.

Organizations tend to use a token-based system, where a community member receives a reward as fungible tokens. These can include retroactive funding, airdrops, liquidity mining, and compensations for delegation or any specific task. A less explored way of designing incentives is reputation-based rewards, where rewards cannot be sold. It usually takes the form of either a score or a badge. With incentives, DAOs hope to attract new members who share their mission and retain the participation of existing members.

For information on how to contribute to DAOs you can head to our DAO Research.