NEAR X A PENROSE

DAOs (decentralized autonomous organizations)

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Introduction

What are DAOs?

DAOs, or decentralized autonomous organizations, are a brand new and flexible technology with a limitless number of use cases, and present a novel approach to organizational structuring. The term is often used to describe a group of individuals pursuing a shared goal by using a blockchain to facilitate the decision-making process. This group is bound together by a set of rules which are hard-coded and enforced on the blockchain through the use of smart contracts — the backbone of any DAO. A DAO can be as simple as a group of friends pooling funds for vacation, or as complex as a distinguished nonprofit involving hundreds of donors, board members, and millions of dollars.

Initially referred to as decentralized autonomous corporations (DACs), the ubiquitous term DAO was coined by Ethereum founder, Vitalik Buterin, in his 2014 article DAOs. DACs. DAs and More: An Incomplete Terminology Guide. Back then, a DAO could be described as a software protocol automating the operations of a capitalized organization, placing humans at its edges. Such definitions and hypotheticals led to the first DAO in 2016: The DAO. The DAO became one of the largest spectacles in the Ethereum community by raising over \$150M in ETH. Although The DAO was short-lived, these organizations continue to evolve on blockchains beyond Ethereum like the NEAR protocol: a smart contract-capable, public proof-of-stake blockchain. NEAR's innovative approach to the DAO ecosystem is the introduction of Guilds - DAO-powered communities that fill essential functions in their

greater ecosystem. Each Guild shares the mission of driving a more interconnected, consumercentric world, while also completing department-specific projects related to marketing, design, business development, and more.

Characteristics and benefits of DAOs

DAOs are a vehicle for transparency, efficiency, and anonymity within a collective. Some of DAO's most notable characteristics include:

Decentralized. As implied by its name, DAOs are "decentralized" in that they run on blockchains and give decision-making power to stakeholders instead of a single, centralized entity in a leadership position.

Autonomous. DAOs are made "autonomous" byusing smart contracts- applications on a blockchain that trigger an action given that certain conditions are satisfied, retiring the need for human intervention.

Transparent. Members in a DAO can access the network's code, the rules of participation, and all transactions on the blockchain to date with ease thanks to its open source code.

No hierarchical structure. DAOs are comparable to a company without a CEO. Decisions about the organization's trajectory are made by stakeholders casting votes on proposals.

At their core, DAOs enable strangers to pseudonymously come together over the internet in a seamless manner to manage, organize, and build together online. Given their characteristics, DAOs decrease the potential for abuse of power and instead promote enhanced collaboration, innovation, and experimentation. While there is uncertainty regarding the legality and security

of DAOs, it is believed that this organizational structure will rise to prominence and possibly even replace traditionally structured businesses.

Applications

Why should we pay attention to DAOs?

DAOs are important because they are transforming traditional centralized business models. They are setting the stage for new models of ownership and governance to emerge, enabling the future of the internet to be more democratic and collaborative.

A NEW BUSINESS MODEL

For the first time in history, strangers are able to build a product and coordinate an unprecedented amount of money without ever meeting in-person, signing contracts, or knowing each others' names. DAOs create economic incentives that help align thousands of people without the need for formal roles or recruitment. As a result, such open source projects are able to fund and scale operations at a much faster rate compared to traditionally governed organizations. This rapid scaling opportunity enables innovations in the web3 marketplace to grow exponentially.

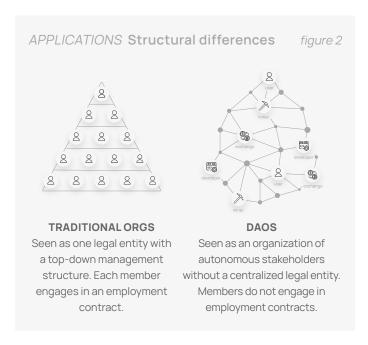
For example, the PenroseDAO is a service DAO embedded into the NEAR ecosystem. The vision for this DAO is to service startups & founders

INTRODUCTION DAOs vs traditional organizations

figure 1

	DAO	Traditional Organization
STRUCTURE	Flat and democratized	Hierarchical
DECISION-MAKING	Voting required by members for all proposals to be implemented	Changes can be demanded from a sole party
EFFICIENCY	Services are distributed automatically in a decentralized manner	Services are offered manually and are prone to error or manipulation
TRANSPARENCY	All activity is transparent and open to the public	Activity is limited to the public and typically private
INCLUSIVITY	Anyone can contribute by the rules and be rewarded	Recruitment is very selective and biased
SCALE	Fully global and infinitely scalable	Not always global

building on the NEAR protocol. Instead of being hired and recruited as individual employees within NEAR, the PenroseDAO is a network of web3 professionals and service providers who provide business development services like marketing, sales, and fundraising support in exchange for NEAR tokens. The PenroseDAO fosters an environment for innovation on the NEAR protocol with minimal commitment besides passion.

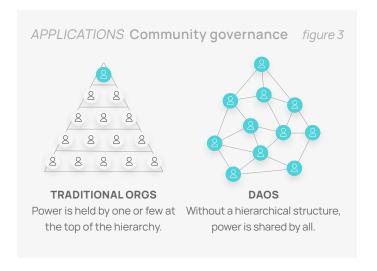


COMMUNITY OWNERSHIP & GOVERNANCE

DAOs also leverage the merits of the ownership economy. Ownership via employee stock option plans have traditionally been a powerful tool for incentivizing talent. However, in traditional businesses these options are not widely accessible, and are usually reserved for early employees and investors, which can result in poor alignment between internet platforms and their users. Ownership is a compelling motivator for users to contribute to products in more meaningful ways be it with ideas, resources, or membership. This cooperative model ensures better alignment with users and fuels the creation

of larger, more resilient platforms.

A significant advantage of DAOs is that they mitigate the principal-agent dilemma. This dilemma refers to a conflict in priorities between a group (principal) and those who make decisions on the principal's behalf (agent). A plethora of principal-agent conflicts occupy the traditional capitalized organization, sometimes to the point of insolvency and bankruptcy. DAOs solve the dilemma through community governance. Stakeholders do not need to trust any agent acting on their behalf because they work collectively with a group whose incentives are aligned.



How DAOs work

Just like any organization, a DAO only works given a set of rules and guidelines. While DAOs are mostly autonomous, they can not write their own code and instead rely on contractors hired through member voting to create the product. These rules are formed by a core team of community members to be later added to a smart contract. Smart contracts lay the foundational framework by which the DAO and its members must operate. Such contracts are highly accessible and auditable so that any potential

member may understand how the protocol works.

After the rules of a DAO have been hard-coded onto its blockchain, the next step is crucial to the process; securing funding. This step requires that the organization figures out how to receive funding and bestow governance. Typically, DAOs will issue a token to raise funds and fill the DAO treasury. Token holders essentially trade their fiat for voting rights proportional to their holdings. Therefore, the more a person spends on a DAO, the more influence they have on the project's operations.

Once funding has been secured, the last step is deployment. At this step, the code is pushed into production and can no longer be altered by any means beyond a consensus obtained through member voting. The DAO becomes completely independent from its creator and its fate rests in the hands of the community of token holders.

Timing of DAOs

DAOs have been around since 2016 but have only recently grown in popularity. As DAOs become applicable to more daily use cases, the interest in DAOs will only grow. Already, more organizations are forming as DAOs and reimagining how their stakeholders perceive ownership. As of August 2020, the amount of locked positions in DAOs in the market was only \$55 million. Fast forward to 2021, the amount of money deposited in DAO applications has exceeded \$745 million and over 190,000 users. This rising trend can be attributed to several factors. Fundamentally, there has been an increase in the public education and awareness of DAOs and its benefits. Additionally, the tools and technologies that DAOs use to coordinate themselves and make group decisions have only recently come to maturity—with new options

being developed every day. On the other hand, there have also been dramatic macro shifts in the global economy as a result of the COVID-19 pandemic.

In November 2021, ConstitutionDAO flooded headlines when it tried to purchase an original copy of the U.S. Constitution at a Sotheby's auction. As a collective, 17,000 donors contributed to raising \$47 million worth of Ether. In July 2021, PleasrDAO which pools funds to buy NFTs and other forms of art purchased a one-of-a-kind album for \$4 million. Such projects highlighted the influence of DAOs and brought them into the mainstream media's attention. Today, DAOs are expanding into other industries, promising a new and innovative business model. Since the COVID-19 pandemic, businesses are looking to adopt more transparent, collaborative, and flexible operational models. This explains the gravitation away from traditional organizational structures and towards the democratized system that DAOs offer.

Global pandemic aside, we are on the brink of a creative revolution fueled by people armed with powerful financial and technical tools. These people are working together to start and grow increasingly complex businesses and generate an unprecedented amount of wealth within a short period of time. It is hypothesized that within two decades, there will be multiple trillion-plus dollar publicly traded entities with only one employee; the founder. Undoubtedly, we will witness a surge in DAOs—both small and large organizations that are all aligned to execute a shared goal—with increasing coordination with and between other DAOs.

DAO use cases and types

DAOs come in all shapes and sizes. While these projects use differing frameworks and tools for communities to collaborate, they usually offer smart contracts to facilitate on-chain transactions. The technology that governs DAOs can be applied to almost any facet of society yet they are all governed in the same way: community participation.

GRANTS DAOS

Grants were the first true use case for DAOs.
Grants DAOs allow communities to gather funds and use a DAO to vote on capital allocation to various contributors and projects. Such votes take place in the form of governance proposals and demonstrate the agility of niche communities compared to traditional organizations.

Createbase, a Guild built on the NEAR protocol, allows a community of creators to access funding and networking opportunities.

PROTOCOL DAOS

Protocol DAOs aim to transfer power from a core founding team into the hands of the community and create new ways for projects to issue fungible tokens into the market. Such tokens are usually used to govern protocols, giving token holders the authority to propose, vote on, and carry out changes to the network. An example of a protocol DAO is **AstroDAO** which empowers groups to make decisions, collectively.

INVESTMENT DAOS

After introducing new tokens to the world, it only makes sense for groups to come together and invest in them. These groups, otherwise known

as Investment DAOs, allow communities to act as decentralized angel investors who invest in early-stage projects that need funding. While investment DAOs are more heavily regulated than grants DAOs, they allow members to invest large sums of capital with low barriers to entry.

BitDAO allocates the world's largest DAO-directed treasury by partnering with leading protocols.

SERVICE DAOS

With the arrival of so many new tokens, service DAOs act as decentralized talent allocators to allocate resources from one DAO to another using on-chain credentials. Service DAOs allocate individuals with various skill sets within various departments to where they are needed most.

Legal Guild on the NEAR ecosystem educates its members for a better understanding of their legal responsibilities. Similarly, PenroseDAO provides business development services like marketing, sales, and fundraising support.

MISCELLANEOUS DAOS

Other DAOs like social, collector, and media DAOs focus on social capital, creations, and exposure, respectively. These projects have forever altered the narrative of art and how to create communities out of individuals with similar interests. Evidently, there are endless use cases for DAOs and existing projects only represent the tip of the iceberg. As evolving organizational structures take flight, DAOs will be at the forefront of testing governance systems and ensuring transparency, efficiency, and flexibility.

USE CASE EXAMPLES

DAOs are being employed for all kinds of means. From buying constitutions with ConstituionDAO



to fighting climate change via KlimaDAO, there are endless possibilities when it comes to new innovations using this technology.

Currently, the largest DAO token by market capitalization is **Uniswap** (UNI), a decentralized finance protocol automatically exchanging cryptocurrencies. Uniswap transactions take place on Ethereum blockchain through smart contracts. The exchange itself has become an influential DAO since launching its governance token, UNI, which gives the Uniswap community a say in the protocol's daily operations by voting on development proposals.

While Uniswap began with a vertical hierarchy and later became a DAO through the issuance of its governance token, PleasrDAO initially came together as a decentralized autonomous community. PleasrDAO is a collective of leaders, collectors, and artists acquiring culturally significant pieces. The community exists for the sole purpose of decentralized art appreciation and already has experienced many successes in its first year. In 2021, the group pooled their funds and secretly bought the sole existing copy of the album "Once Upon a Time in Shaolin" by the WuTang Clan for \$4 million.

There are many, many more DAOs to be explored as the governance structure gains traction across all industries and use cases. On the NEAR protocol, apps like **AstroDAO** and **SputnikDAO** have directories with hundreds of DAOs to be explored.

NEAR & DAOs - How to get involved

Join a DAO

Now that you know a little more about DAOs, you may be wondering what you can do to begin experimenting with this technology. A good place to start is by participating in a DAO that resonates with you; any project, big or small, that you see value in.

Before becoming a stakeholder in any organization, it is important to identify your goals. This personal reflection is key to your DAO journey and will naturally answer the questions of how and where to invest your efforts. Since DAOs are heavily mission-driven, value-alignment is crucial to your success. The process of answering your 'why' is much easier said than done, however some key criteria to consider are the importance of a unique mission, learning opportunities, network, and financial return to you.

Once your 'why' has been answered to the best of your ability, the next step involves exploring your options. The world of DAOs can be daunting, but thankfully there is a suite of readily available tools and platforms to assist with the experimentation process. There are many ways to begin discovering DAOs but a great resource to start with is NEAR protocol's Guild guide, which allows you to access a whole suite of projects and narrow your search for DAOs with its filter functionality. Other resources like Snapshot, a database of web3 applications allows you to easily filter for DAOs and read active or past proposals. To get a better understanding of the project, refer to the DAO's founding charter or any other beginning

documentation.

After identifying 2-3 DAOs that are of interest to you, it is time to get familiar with the community's flow of operations:

- 1. Find the platforms that the organization is most active on and be sure to keep up to date with the latest news and updates. Popular forums amongst decentralized communities include Discord, Telegram and Twitter. This step is essential for assessing the community's activity, efficiency, and engagement, while also providing insights and opportunities for how you can contribute to the ongoing work.
- 1. Begin contributing work and engaging with the greater community. Some easy ways to begin adding value to a DAO may include taking notes at community meetings or engaging in governance discussions. To be an official contributor of a DAO, most organizations require that you hold their native token to be able to submit proposals or vote on governance decisions.
- 3. Draft & submit a proposal. Decide on how you would like to contribute and draft a proposal to add yourself as a new Council Member. Once this proposal has been submitted to the forum, be prepared to submit a formal proposal by buying the DAO token. Once any desired amendments have been made, the proposal can be submitted for a formal vote on a platform like Snapshot.

Projects like Hype DAO are paving a new way for creators to collaborate and innovate. If you are an artist or developer interested in growing along an international community, Hype DAO is the place for you. With just the \$HYPE token, you become a member of the community; it's that easy!

Most DAOs are permissionless, meaning that anyone who owns the DAO's token is automatically a member of the DAO that issues those tokens. Like most things, you get what you give, and this rule definitely applies to these autonomous organizations.

If you have one takeaway from this article, it should be that there are few limitations to DAOs. Regardless of what your goals are in joining or creating a DAO, resources like NEAR protocol make it easy. One way to get involved in this technology is to join a DAO listed on SputnikDAO powered by NEAR. SputnikDAO is a hub of DAOs that exist for the purpose of supporting communities in the NEAR ecosystem. Using SputnikDAO, you can receive rewards for submitting proposals to existing DAOs or create a guild for your very own project.

Start a DAO

Once you have gained some experience contributing to DAOs, you might be eager to start your own. Starting your own DAO is more complex than joining one, just like starting your own business is harder than being hired to work for one.

Thankfully, there is an abundance of resources at your disposal. For instance, DAO frameworks make it much easier to develop your own DAO.

These frameworks vary in complexity and exist in relation to governance, project management, compensation, dispute management, and more.

Frameworks like Colony, Aragon, The LAO, Moloch, DAO Stack, Alchemy, Syndicate, DAO Haus, and Tribute by OpenLaw are all readily at your disposal.

Sputnik DAO is a recent innovation in the NEAR ecosystem that encourages DAO creation. Sputnik V1 is the Mother DAO of the NEAR Protocol and the first iteration of a completely new approach to DAOs. It inaugurates a new approach to community governance, management, and funding where NEAR ecosystem projects and guilds can easily create their own DAOs under the umbrella of Sputnik. Essentially Sputnik is a DAO of many DAOs; it is a DAO factory.

Most DAOs today are independent entities in that there is one DAO for each protocol or project. This severely limits the long-term opportunities for an ecosystem to diversify across initiatives. With Sputnik, its infrastructure is able to accommodate multiple communities, each with different goals, criteria, and timelines. As a result, the ecosystem becomes more decentralized, communities have more governing freedom and funding and development of the ecosystem can be expedited.

The following sections outline the process, tools, and additional resources that will help you in your journey of creating a DAO.

STARTING A DAO USING SPUTNIKDAO

- 1. Get your contract-based **NEAR wallet**.
- 2. Get funded via **Sputnik DAO** by submitting a proposal to acquire 30+ NEAR from an existing Sputnik DAO.
- 3. Return to Sputnik DAO after getting funded and click the purple "Change DAO" button.
- 4. Click 'Create New DAO'.
- 5. Fill out all the parameters in the "Add New DAO" modal (DAO name, purpose, council, bond, vote period, grace period, and amount to transfer).

6. Click the 'Submit; button and your DAO is live!

STARTING A DAO USING ASTRODAO

- 1. Get your contract-based NEAR wallet.
- 2. Fund your wallet with <u>Moonpay</u> via credit card or through <u>Rainbow Bridge</u> if you already have currency.
- 3. Head over to <u>Astro DAO</u> and click 'Launch App' which will prompt you to connect your wallet.
- 4. Once on the home page displaying all existing DAOs, click 'Create New DAO'.
- 5. Fill in the form fields accordingly.
- 6. Once fields are completed, scroll down and click on 'Create DAO'.
- 7. In the future, to access your DAO, visit the Astro DAO platform and click 'My DAOs' in the sidebar menu.

If you are interested in seeing how these technologies work in practice, check out some of our explainer videos where we create our own DAO using AstroDAO.

Major innovators

There are dozens of DAOs being built in the NEAR ecosystem as we speak. Whether these projects came to fruition using SputnikDAO or AstroDAO, they have obtained a permanent membership to a community of like-minded, mission driven individuals. Keep on reading for a curated list of DAOs in the NEAR ecosystem.

One of the newest innovators in the NEAR community is PenroseDAO! PenroseDAO offers consulting services to aspiring entrepreneurs at little to no cost. They strive to be the go-to service DAO within the NEAR community advising startup

organizations on their strategy and vision. To learn more about how they came to be, make sure to check out the explainer videos at the end of this doc!

COMMUNICATIONS

Collab.land is a token gated chat that allows communities to restrict Discord or Telegram access to members who are in possession of a certain amount of a particular token. Tools like collab.land leverage the strength of identity through cryptocurrencies to build a unique social space.

TREASURY MANAGEMENT

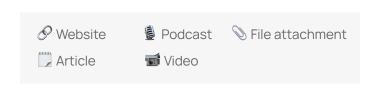
Multisig & treasury platforms like **Gnosis Safe** and **Llama** are popular fund management applications across DAOs. Gnosis Safe is a multi-signature wallet used for pooling and managing funds whereas Llama acts as a treasury data provider for budget planning and reporting. Depending on a protocol's treasury structure, DAOs may have different approaches to treasury management and therefore use different tools.

VOTING & GOVERNANCE

One of the most important characteristics of DAOs is its governance structure, for which there exists a plethora of applications. These tools allow communities to carry out decentralized operations and budgets via proposals and voting. Resources like **Boardroom**, **Tally**, **Snapshot**, **Orca**, **PolicyKit**, **MetaGov** and **Paladin** are just the tip of the iceberg when it comes to governance tools.

Other tools in relation to incorporation, legal, banking, contribution tracking, and organization infrastructure also exist for different applications. With so many resources available, it is important to carefully evaluate their value propositions and ensure they align best with your project and its long and short term goals.

Further Resources



Introduction to DeFi

- What is a DAO in Crypto? (Whiteboard Crypto)
- What is a DAO? ALL You Need to KNOW (CoinMarketCap)
- ★ What is a DAO? The Defiant Guide (The Defiant)
- **DAOs Institutions of the Future** (Stanford University)
- DAOS: a new organizational and governance paradigm (Louis Grx)
- A prehistory of DAOs (Gnosis Guild)
- A beginner's guide to DAOs (Linda Xie)
- DAO landscape (Cooper Turley)
- Everything you need to know about DAOs (Foundation)

DAO Courses

- What are DAOs? (Future Learn)
- The Basics of DAO (Autonomous Organization) in Blockchain (Udemy)
- The DAO: A cautionary tale (Coursera)

Why DAOs

- Why decentralization matters (Chris Dixon)
- The meaning of decentralization (Vitalik Buterin)

How to "DAO"

- How to DAO: Answers for Beginners (Aragon)
- How to join a DAO (Bankless)
- How to DAO from day 1 (Jack Fancy Forefront)

Governance

- The slow death of the firm (Nick Tomaino The Control)
- Companies, networks, and crowds (Future I a16z)
- Now to Win the Future: An Agenda for the Third Generation of the Internet (a16z)
- DAOs and the future of organizations online (Steven Johnson Adjacent Possible)
- Building and running a DAO: Why governance matters (Tarun Chitra Future I a16z)

Additional DAO Resource Lists

DAO Tools & Resources

Not Boring DAO Links

DAO Creation & Design

Awesome DAOs

DAO Legal Resources

a16z NFT Canon

House of DAOs

Best DAO Tools

Exploring the NEAR DAO ecosystem

- Market How to use AstroDAO
- Mow to use the Moonbase bot