



DAOstack

Executive Summary

V1.0

November 18th, 2017

Abstract

DAOstack is an operating system for a new form of web organization: the DAO. Decentralized Autonomous Organizations have captured the imagination of the best minds in the blockchain space, but despite their promise have yet remained an abstract idea. One key point of failure is the lack of solid framework for decentralized blockchain governance. DAOstack provides a general stack for collective value management on the blockchain, including a friendly JavaScript developer environment and an intuitive user interface. Just as HTTP allows the creation and interoperability of web sites and web applications, the DAO stack enables the creation and interoperability of web *companies*, collaboration apps and DAOs, as well as the alignment of their interests. The result is a new web of open collaboration, in which collectives can self-organize around shared goals and values, not limited by pure economic growth. We believe this to be a critical step in the evolution of society toward a more cooperative and sustainable future.

The Future of Work

Vision

Imagine thousands of people spontaneously joining forces to work together —akin to Linux and Wikipedia, but in a decentralized way and with a viable business model for open-source collaboration.

Imagine Internet-scale curation networks superseding existing platforms like articles on Reddit or videos on YouTube, restaurants on Yelp or hotels on TripAdvisor, websites on Google, or investment opportunities on AngelList. The value created in the new networks is shared between curators, which are thus incentivized to participate.

Imagine peer insurance networks and collective investment funds replacing the corresponding corporate models.

All of the above requires the same missing element in order to operate: a distributed and trustworthy governance system. DAOstack provides that element, based on the blockchain technology, applied first toward open-source collaboration to further build DAOstack itself.



Mission

DAOstack's mission is to bring a landscape of DAOs into life and to enable crowd cooperation around any goal. With a blockchain governance system and a virtual hub for entrepreneurs, freelancers and investors, it forms the interface for a new Internet of Work.

To reach that goal, DAOstack aims to:

- 1) Bootstrap and grow the DAOstack platform, as an operating system for DAOs.
- 2) Invest in an ecosystem of DAOs that will be using the DAOstack platform.

DAOstack's alpha release called *Bootstrap* is currently live on the Ethereum Testnet. While developing the DAO stack, DAOstack aims to grow organically and govern itself using its own platform.

Use cases

While the DAO stack supports a variety of DAO use cases, we focus its current phase on the realm of Work and Collaboration, enabling users to:

- Open a new DAO venture, configure its governance system for the distribution of tokens and reputation, find collaborators, and offer bounties to professionals.
- Work on whatever they like to do anyway: browse existing projects, pick tasks, submit contributions and collect rewards.
- Form large-scale, open-source development networks.
- Form business agreements and cooperation between projects.
- Easily invest in a wide and curated portfolio of blockchain projects.

The DAO Stack

Smart Agencies are the atomic entities of governance on the blockchain. A DAO, then, is a mesh network of Agencies which are aligned in shared goals and economic interests, and in particular a unified token.

The DAO stack includes the various technological and product layers needed for the operation and governance of Agencies and DAOs. It enables the collaborative management of their assets and decision power, the coordination of work and business agreements with other Agencies or DAOs, and the management of their own protocols.

- **Arc** is a modular Solidity framework — working on the Ethereum blockchain — for the operation and governance of Agencies. With Arc, Agencies can be easily deployed, configured and upgraded. With an open library of governance modules and templates, it forms the analogue of Wordpress for DAOs.
- **Arc.js** is a javascript library that lets front-end developers easily build collaborative applications on top of Arc without being familiar with Solidity or the blockchain.
- **Alchemy** is the first native user interface for Arc (and for the DAO ecosystem) built by DAOstack. Further third-party applications will be integrated to Arc and the stack, a couple of which are already in this process.



- **The ArchHives** are DAOstack's shared registries that enable the enhancement of interoperability and network effect between the various third-party collaborative DApps built on top of Arc:
 - **Mosaic** is the registry of all agencies and DAOs, being curated by the DAOstack community and serving the DAOstack ecosystem.
 - **Compendium** is the registry of all governance modules available for agencies, audited and curated by the DAOstack dev community.
 - **The Hive** is a shared registry of offers and requests.

The advantage of operating on an open protocol — in a perfect analogy to the way browsers and apps all connect to the same HTTP protocol — is that different apps retain interoperability with each other. Just as users of Chrome, Firefox and Airbnb can instantly interact with each other, users of different collaborative applications running on Arc and the ArchHives could work and organize together, thus creating a much more powerful ecosystem.

Zer0 and **Heroes** are independent collaborative applications that are in process of integration with Arc.

Economy

The Stack is the native token of the DAOstack ecosystem. Basic operations on the DAOstack platform —such as promoting proposals, and more generally attracting collective attention— will require the spending or holding of Stacks, thus contributing to its value. Stacks will also be distributed to contributors of value to the network (through the DAOstack framework itself), thus incentivizing wide engagement in development, promotion and early adoption. Finally, Stacks will be offered for sale in three batches: an early private sale starting with the release of this paper (V1.0), a presale toward the end of 2017, and a public token sale expected for Q1 2018.

Team

Matan Field / CEO & Architect — Leading expert in decentralized governance. PhD in Physics from the Weizmann Institute researching effective string theories and holographic duality. DAO architect and blockchain entrepreneur since 2014. Father of two and player of the piano.

Adam Levi / CTO — Deep Blockchain technologist. PhD in physics from the Technion researching quantum effects in black holes. BSc in Electrical Engineering, specializing in communication and electro-optics. Former IDF radar engineer. Passionate explorer of the technical and game-theoretical aspects of blockchain. Twenty-Two years writing code.

Roberto Klein / Legal and Finance — Experienced investor and entrepreneur with a focus on blockchain regulatory issues, corporate finance, IPOs, and startup financing. M.Sc in Engineering and MBA. Parting the regulatory seas to make way for innovation.

Josh Zemel / Communication and Marketing — Veteran of marketing, management, and business growth. Designed and executed major growth initiatives for Equifax, Blue Cross Blue Shield, and Toyota. Former VP at IMM, a digital agency he was instrumental in growing from infancy to 100 people. Founder of four profitable companies.



Yehonatan Goldman / Operations — Polymath and connoisseur of operations. MA from Haifa University researching applications of RTI imaging. Crypto investor & explorer since 2014. Project manager in productions, building, design and technology. Winemaker and archeologist. Loves helping ideas take shape.

Primavera de Filippi / Alchemist — Permanent researcher at the National Center of Scientific Research (CNRS) in Paris. Currently a research fellow at the Berkman Center for Internet & Society at Harvard Law School, where she's investigating the concept of governance-by-design as it relates to distributed online architectures.

Jordan Greenhall / Advisor — Co-founder and former CEO at DivX (NASDAQ: DIVX). Former SVP Strategy at MP3.com (NASDAQ: MPPP). Futurist, disruptor.

Seth Taube / Advisor — Co-CEO and co-Chairman of the Board of Directors of Medley Management Inc. CEO of Sierra Income Corporation (NASDAQ: SRNTX) and Director of Medley Capital Corporation (NYSE: MCC).