UMBRELLA DAO WHITE PAPER

The Decentralised ICO Machine

D.M

[Cryptosticker@pm.me](mailto:Cryptosticker@pm.me)

First draft February 3rd 2019

A DAO is an open, self-organized network coordinated by crypto-economic incentives and self-executing code, cooperating around shared goals and powered by the network effect.

Umbrella DAO is a decentralised venture capital organisation on the Ethereum blockchain which provides seed funding for tokenisation proposals. Umbrella token holders are provided with an interface with the governance contract, and they can discuss and vote on proposals via a forum. Administration of the Umbrella DAO is completely decentralised. Participation is open to anyone, anywhere.

1. Abstract

Since the dawn of mankind, collective organisations have become ever more complex. Most of man’s greatest achievements have been made possible through the constant advancement in organisational forms driven by the search for greater efficiency in achieving a particular goal.

This organisational advancement has culminated in the corporations and trusts of the present day, with their rigid, top-down management, lack of transparent auditing, and haphazard or even corrupt regulation.

Even now, most people in the world are disenfranchised and have no access to justice against the cartels and monopolies that control so much of their lives. This lawless condition has resulted in huge and growing inequality, unrest and humanitarian crises. Given this sorry state of affairs, how can we improve how we organise ourselves?

*Less economic freedom implies less economic opportunities, less investment, less jobs, etc. It is not hard to see this leading to starvation or deaths.*

*- Roger Ver*

2. Decentralised Autonomous Organisations

Recent successful implementations of distributed applications on programmable blockchains have opened up new possibilities in the engineering of organisational structures.

Smart contracts that hold and move tokens according to unchangeable and publicly encoded rules allow for greater audit trail transparency and remove the need for trusted intermediaries. Voting cannot be rigged when it is tokenised and takes place in a blockchain environment; contracts become trivial and self-enforcing, and micro-transactions are simple to implement. Blockchains allow you to prove who you are and at the same time remain private to a large degree, giving users control over their identity.

Properties such as these facilitate the creation of amorphous corporation-like entities on distributed state machines that replace the administrative infrastructure of a shareholder corporation with code.

*We talk about so-called “smart contracts” that execute themselves without any need, or any opportunity, for human intervention or involvement, people forming Skynet-like “decentralized autonomous organizations” that live entirely on the cloud and yet control powerful financial resources and can incentivize people to do very real things in the physical world, decentralized “math-based law”, and a seemingly utopian quest to create some kind of fully trust-free society. To the uninformed user, and especially to those who have not even heard of plain old Bitcoin, it can be hard to see how these kinds of things are possible, and if they are, why they can possibly be desirable. - Vitalik Buterin*

DAOs are open, self-organized networks coordinated by crypto-economic incentives and self-executing code, cooperating around shared goals. Powered by the network effect

Cryptocurrencies are autonomous organisations. From a few lines of code spring whole communities of researchers and contributors at all levels. There is no need for punitive enforcement or any trust in the other party. These powerful, purpose-driven communities prove that DAOs cannot only exist in theory but also thrive in the real world.

Ethereum has been a focus of DAO development since its inception, some examples being DigixDAO (gold tokenisation DAO), MakerDAO (stablecoin DAO), TheDAO (a defunct general DAO), and Daostack (DAO platform). There has also been a proliferation of DAPPs and quasi-Dao platforms. Using the Ethereum blockchain as a base layer has many advantages for Umbrella DAO, not least because it is being developed with this type of use case in mind.

3. DAO Successes and Failures

TheDAO

*The DAO is being attacked. It has been going on for 3-4 hours, it is draining ETH at a rapid rate. This is not a drill. - Griff Green (Slock.it)*

Slock.it proposed TheDAO in June 2016 as an outgrowth of Slock.it’s own fundraising efforts. It later expanded in scope to become a general-purpose DAO. Shortly after its inception, an attacker was able to exploit a governance function and began to drain large sums of ETH from the contract. The attacker stole $50 million-worth of ETH before it was decided to fork the Ethereum blockchain to undo the hack.

function splitDAO(

....

withdrawRewardFor(msg.sender);

Fig.1. Part of the vulnerable code from TheDAO

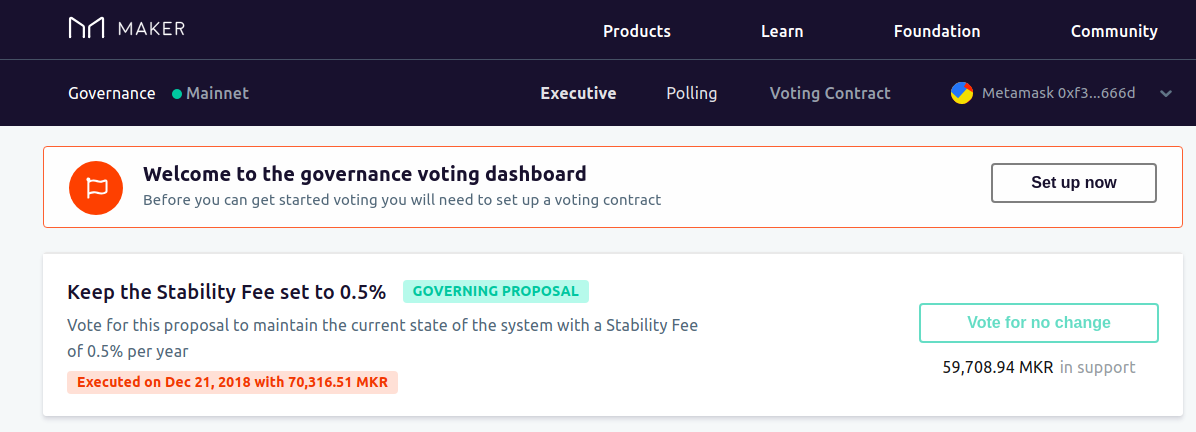
This very public example of DAO failure contributed to the cooling of interest in the idea. TheDao’s failure was due to a number of factors. For one thing, the function for splitting TheDAO was added at the last minute due to pressure from token holders who did not want to fund slock.it’s proposal. Although only token holders could vote, almost anyone could participate in DaoHub, the forum for TheDAO. Although TheDao was supposedly completely open, the proposal process was vetted by “curators” who constituted an obstacle to full autonomy. The rules and their functions were Byzantine and opaque to all except those most closely involved in its creation. Even before the hack, the financial policy of its founders seemed to be biased towards giving a few favoured startups unlimited budgets.

Despite the fact that this attempt at baking a DAO cake yielded bitter results, there are positive and negative lessons to be learned from this enterprise.

MakerDAO

MakerDAO is an organisation that issues a stablecoin pegged to the USD and backed by collateral held in its smart contracts. The token holders vote on proposals to maintain the stability of the DAI[[1]](#footnote-2) token that they issue.

Fig. 2. MakerDAO dashboard showing the governance proposal



MakerDAO differs from TheDAO in that the functions of its governance contract are narrower, focused only on stability of DAI which can be controlled by changing the stability fee. This approach has resulted in a very successful organisation, with over 76 million DAI issued and an average volatility against the USD of under 3%.

Although MakerDAO is not as thoroughly decentralised in its governance as TheDAO attempted to be, its foundation still has quite a large proportion of the power, it can offer clues as to how a successful DAO can be created.

4.Umbrella DAO

Umbrella DAO: A decentralised venture capital DAPP[[2]](#footnote-3)

The mass tokenisation of all real world and intellectual assets is imminent. The advantages inherent in blockchain-based securities over traditional, centralised solutions for both the investor and the issuer, means that security tokens will occupy a bigger share of the securities market.

Tokenised assets do not need intermediary financial institutions with their associated fees. They have more liquidity due to being divisible and transferable peer to peer. And they are much simpler than traditional illiquid assets with their fractional ownership, such as real estate. Research suggests that in the future, the majority of assets will be securitised as tokens held on trustless, decentralised ledgers such as Ethereum.

Open, transparent, self-regulating decentralised governance is the ideal model for bringing about this transformation. We believe that the process of liquidation of real assets into tokens held on trustless, decentralised ledgers must itself be decentralised if it is to make full use of the available technology. The opportunity that tokenisation represents for human advancement will be squandered if the gatekeepers of tokenisation are the same old institutions in disguise.

The potential for coercion and economic monopoly inherent in the transformational process of tokenisation necessitates a voluntary decentralised alternative.

To that end, we present Umbrella DAO, which aims to generate equity for the DAO through the issuing of public offerings of tokenised assets and securities. Umbrella DAO token holders will vote on investment proposals that have been submitted to the DAO, then use DAO funds to raise capital by selling tokenised securities of those assets in public offerings. Umbrella DAO will retain a share of the equity in the finished revenue-generating asset, which will provide dividends to DAO token holders or be partially disposed of to provide capital for exponential expansion.

5.Outline of Draft Governance Smart Contract

1. Anyone can send a proposal transaction to the contract with a 0.1 ETH deposit (refundable if the proposal is accepted). A DAPP front end with a form will be provided for this purpose. The information entered is combined into a transaction and sent to the governance contract.

2. The DAPP proposal will have several required fields to enable a thorough assessment of the proposal.

|  |  |
| --- | --- |
| Field | Example |
| Description of proposal: | * [We need seed funding for an ICO to tokenise a multistory car park. When the ICO has concluded we will airdrop Umbrella token holders 15% of the supply.] |
| Provider details: | * [Name] * [business details] * [links to Linkedin, white paper and roadmap] |
| Sum in ETH required: | * [100] ETH * Address: [0x219de78da6c6c6c9bb218b8d9Ec32F] |
| Financial breakdown: | * [URL Link to detailed assessment] |
| Expected time to return (days): | * [121] Days |

**Fig. 3. An example of a service provider proposal**

3. The contract will feed the proposals to a catalogue on the DAO forum (a signed message from a token holder address is needed to view and post on this).

Voting:

1. One token=1 vote.

2. You can only vote on one proposal in any 30 day period or after a proposal has passed

3. On voting, the tokens are locked or staked against a particular proposal and unlocked at the end of the voting period

4. You can change your mind, unlock your tokens and vote for another proposal at any point before the deadline

A proposal will pass if:

1. It is the first to reach a ballot equivalent to 30% of the total supply of tokens.

2. After 30 days it receives the most votes of any proposal

A proposal will fail if:

2. The required forms are not completed to specifications

3. It receives fewer votes than another proposal in the same 30-day period

4. Umbrella will initially be limited to releasing up to 10% of its balance every 30 days or the equivalent number of blocks. This amount does NOT include dividend proposals. (Proposals to upgrade the governance contract itself can be voted for, so this may change.)

5. Dividend proposals will send the amount proposed to all token holder addresses in proportion to the number of tokens held. (It is possible for DAO token holders to vote to release the entire balance of the DAO to all token holders, thus closing the DAO.)

|  |  |
| --- | --- |
|  | |
|  | 1. Simplified view of interaction between users and governance contract 2. Token holders and proposers are the two types of user that can interact with the governance contract |
|  | 1. The governance contract in its constituent parts 2. The proposer pays a deposit when sending the proposal to the proposal interface 3. A contract address is created for the proposal 4. The token holders view the proposal catalogue and interact with the voting interface |
|  | 1. A proposal is passed and the required amount of ETH is sent to the proposer’s address. 2. The project is completed according to the terms. The provider sends ETH back to the contract address. 3. If agreed, tokens from the proposer’s project can be airdropped directly to Umbrella token holders. |

**Fig. 4. Overview of the Umbrella contract**

The vote buying problem raised by DAOstack[[3]](#footnote-4) is a non-issue in this case. The Umbrella DAO tokens will likely always have a market value greater than the balance of the governance contract. Since tokens are staked against a particular choice until a vote is passed, anyone voting for such a self-destructive proposal would stand to lose more through destroying the value of their Umbrella DAO tokens than they would gain from the maximum bribe of 10% of the DAOs balance. *(And their tokens would be locked in the contract, meaning they wouldn’t be able to sell.)*

Dividend proposal:

Dividends are a vital feedback for added stability in the finances of Umbrella DAO. Dividends incentivise token holders to take a long-term view in decision making.

1. Anyone can make a dividend proposal for a 0.1 ETH deposit

2. Dividend proposals are voted on once a year

3. Dividend proposals are **not** limited to 10% of balance

4. Once they are passed, the entire amount is shared proportionally among token holders.

The idea here is not to create *the Final* governance contract of all time, but simply to set up a basic ability to self update with enough fail-safes built in so that Umbrella DAO has enough time to adapt. These failsafes, narrow inputs, limited spending and closing the forum to non token holders, should give Umbrella DAO the breathing room to develop in to a much tougher nut to crack.

6. The Foundation

Umbrella will set up a non-profit foundation to handle the token sale funding. The foundation will consist of the people working on this project right now, including the author of this White Paper. No more than 10% of the tokens will be set aside to pay them. Once the project is delivered, each of the individuals running the foundation will become a normal token holder just like you.

A further 10% of the tokens will be retained by the foundation and gradually sold on the open market to cover the costs of developing and auditing the governance contract.

The entirety of the balance of the crowd sale will become the balance of the governance contract.

7. Actual Operation

*DAOs are open, self-organized networks coordinated by crypto-economic incentives and self-executing code, cooperating around shared goals. Powered by the network effect*

Umbrella DAO’s primary goal is to create profit for the DAO. The DAO will function by inviting proposals for projects, analysing their prospects for success, and voting to decide which project’s **token sale should be funded**. By issuing token sales instead of backing the project itself, the DAO is able to back many projects at the same time and build equity more quickly. Members of Umbrella DAO cast votes in proportion to the number

of tokens they control. Tokens are divisible, indistinguishable and easily transferred between accounts. In order to prevent “proposal spam,” a minimal deposit is required to be paid when creating a proposal. This deposit is refunded if a quorum is achieved. If a quorum is not achieved, the proposer loses their deposit. The value of the proposal deposit can be changed from the default value by the DAO by means of another proposal.

We aim to make a more robust governance contract by narrowing the functions available initially. This will be less dangerous than the design used by Slock.it’s TheDAO which contained the option to split the contract to form a new DAO and at the same time split the funds.

If token holders wish to leave Umbrella they can simply sell their tokens and their market value will correspond to the popularity of the proposals passed.

8. Legal Personhood Issues

Umbrella DAO could obtain legal personhood in a number of jurisdictions. As long as this recognition does not impinge upon the independence and decentralised pseudonymous nature of Umbrella DAO, this status should be sought.

To begin with, the only legal point of contact that Umbrella has is the foundation. Once this organisation has served its purpose, it will be dissolved. Umbrella could vote to set up a legal personhood if one is required.

This could be used as the link between Umbrella and the corporate legal framework. Its governing memoranda would grant all executive control to Umbrella DAO. It would be a special-purpose vehicle for paying all revenue to the DAO and setting up corporate entities that can operate real-world infrastructure on behalf of DAO members. These entities would be responsible for accounting, taxation and employment, and be wholly-owned subsidiaries of the Umbrella-owned entity. Only registered companies can issue STOs under SEC regulation D. This DAO will democratise the creation of STOs and raise capital for low-hanging-fruit real-estate infrastructure and make a large profit.

9. The Future

Umbrella DAO is a device for issuing infrastructure-based STOs. Eventually, the organisation could refine the process of raising capital through STOs and reap dividends from many different revenue-generating tokenised infrastructure investments.

Umbrella DAO will naturally grow in size and expertise. One would expect the decentralised governance mechanisms of the contract and the crowd-sourced intelligence of the forum to give rise to far superior standards for token issuance than centralised institutions. Umbrella will provide a Darwinian nursery for tokenisation proposals and become a focus of these efforts in the blockchain ecosystem.

1. DAI is a price-stable cryptocurrency backed by collateral held in the Maker smart contract. [↑](#footnote-ref-2)
2. DAPP – Decentralised application. [↑](#footnote-ref-3)
3. <https://daostack.io/wp/DAOstack-White-Paper-en.pdf> p.13 [↑](#footnote-ref-4)