I Gave
A Decentralized Autonomous Charitable Organization

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Summary

Raising donations for operations costs is the most challenging obstacle for charitable organizations. I Gave is a DAO for funding charity operation costs. All Ether raised in the ICO will be go to donations to grow non-profit organizations. A monthly vote by IGV token holders will decide the recipients. The I Gave DAPP is a smart contract for charitable fundraising. Fundraisers issue ERC-721 digital assets representing donation levels. A Metamask enabled embedded HTML snippet allows them to accept Ether donations on their fundraising site. Philanthropists purchase the ERC-721 tokens to make their donation. Web3 provides donor token holders new web experiences based on their donations.

Problem

Philanthropy is the market for Love.
- Dan Pallotta

Large charities need funding to keep their organizations running. They must pay employees, raise funds, incur building costs, and marketing. Even then, donors must trust their money is well spent. These investments in themselves are often, wrongly, stigmatized.

From 1970 to 2009 the number of nonprofits to cross the $50M revenue barrier is 144[1]. The number of for-profit was 46,136. Why are nonprofits incapable of capturing market share?

Money is the symptom. Social dogma is the problem. It is taboo to profit from helping others. The things we are taught to think about giving and philanthropy and charity undermine the causes we love. We have no problem with someone making millions of dollars selling widgets but make half a million dollars curing sick kids and you risk character assassination[2].

Philanthropists prefer their gifts go to the needy. It's a difficult problem explaining that marketing benefits the needy. A donation that grows an organization can help tens or hundreds more.

Risk is also heavily scrutinized. A Hollywood movie can cost millions and flop at the box office. If a charity CEO fails to deliver a return in a short period of time they may lose their career. Without the ability to take risks, entrepreneurs cannot generate innovation in the space.

I Gave is a Decentralized Autonomous Organization (DAO) on the Ethereum Blockchain. Its purpose is funding the operation costs of charities and raising charitable funds using digital tokens. It relies on two token standards; ERC-20 & ERC-721. Charity campaigns issue ERC-721 certificate tokens to receive donations. Donations represent units of need - '1 bottle of water', '1 college credit hour.'

Donors buy the ERC-721 certificates to make their donation. E.g. "I Gave 1 bottle of water donated during Hurricane disaster on 1/1/2000". "I Gave rent to the Humane Animal Shelter for 1 year for a kitten." The I Gave ERC-721 contract exists to tokenize donations. Donors will receive DAO votes for their ERC-721 tokens. Over time, their number of ERC-721 votes will eclipse ERC-20 votes. The donors will control the I Gave DAO.

I Gave collects 1% of all funds raised and makes a monthly payment to charity. The DAO's ERC-20 tokens are used as votes controlling these funds. I Gave ERC-20 Token holders vote to donate a monthly stipend of funds raised and ICO funds to charity. This donation is exclusively for operations costs.

All funds raised during the I Gave ICO will be used as a subsidy to the monthly charitable donation. The length of time and amount will be determined by the success of the ICO. A dev fund representing 20% of all tokens will be created, which the majority will be locked until DAO voting begins.

Challenges

Traditional Donors

Traditional donors are unlikely to convert USD to Ether just to use this technology. However, cryptocurrency has a history of charitable giving. I Gave opens the door for organizations to accept donations in the form of Ether. At this time, the market cap of all cryptocurrency hovers near $800 Billion. Currently the Ethereum market cap sits above $100B and is the #2 cryptocurrency.

Fidelity Charitable received over $9M in Bitcoin donations in the first half of 2017. That amount is $2M more than all of 2016[3]. The total number of individual donors is over 150,000.

For the first half of 2017 the Bitcoin market cap was between $17B and $41B.

Why do you need a token?

It's important to clarify the difference between the ERC-721 and ERC-20 standards. ERC-20 is the ICO token. It is highly fungible and functions well for currency and voting. It will be used primarily to facilitate DAO voting. The ERC-721 token is an Asset token. It is non-fungible, and specific to some unique thing. It is used to represent an I Gave certificate for making a donation.

For example, In my wallet I have one dollar bills. There are many one dollar bills in the world all representing the same thing. When I graduated from military police training (USMC class 02-07) I received a graduation certificate. Both are papers that represent some value. There are many dollars, their value all the same. There are many military police officers, but each of our training certificates are unique to our name, rank and our class numbers.

Currency is represented as the ERC-20 token. Certificates are possible using the ERC-721 token.

Each I Gave ERC-721 token certificate represents a unique donation to charity.
The I Gave ERC-20 token is used to govern I Gave and receive a monthly incentive from the funds that are raised.

Do Charities receive Ether or USD?

The DAO will exist on the Ethereum blockchain and be limited to the currencies supported by the network. For now, Ether is the primary currency. Charities may use a payment processor and

provide an Ethereum address from their account. This will allow them to convert to USD if desired.

One hope is that the organization will recognize the potential of becoming holders themselves. And grow their organizations alongside their crypto holdings.

What about Scaling? Network issues?

Ethereum is the largest cryptocurrency community. It has the most developers. It has the highest number of projects. It processes more transactions than all other cryptocurrency combined[4]. At this time, 89 of the top 100 tokens exist on the Ethereum blockchain[10].

Furthermore, in 2017 the Raiden payment channel network launched. This is akin to the yet-to-be-released Bitcoin Lightning Network. Omise-Go is making the first steps with Plasma (Sidechains) and scaling to millions of transactions a second[9]. And the first steps of the network sharding roadmap have been made.

The underlying token standard powering the I Gave certificate is the same standard powering CryptoKitties. I Gave will benefit from technologies that scale the Ethereum network.

Ethereum's largest advantage comes from the number of developers working on the project. Because of the large number of projects, Ethereum benefits from improvements submitted by a community of developers, not a siloed team.

One example of this is FunFair[6] who make their progress updates in blog format and detailing their problems and solutions. Their implementation for off chain transactions has uses for other coins unrelated to their gaming platform.

Benefits

For Charities

Giving is an emotional act. It's not logical to take from your pocket and give to something that doesn't provide some immediate return. Donors make their decisions with their hearts.

We want to pay your operation costs. We will do so in two ways.

1. All ICO Ether is scheduled to go charity in the form of a monthly allowance
2. 1% of all Ether spent on I Gave DAPPs each month also goes to the monthly allowance

All donations coming from the I Gave DAO are to go to operation costs only. Use the funds to grow the organization, innovate and take risks. There are no other strings attached.

I Gave gives you the ability to accept Ether donations for your current campaigns. The I Gave website will provide a management dashboard and embeddable HTML snippets that organizations can use to accept Ether donations on their own sites and accept donations from around the world.

The embedded HTML donation button can go anywhere – celebrities can use it to raise funds for causes they support. Shops can offer donation buttons on their carts. They can be placed in advertisements. They can be aggregated in Amazon-like sites creating entire marketplaces. The donation button creates a decentralized commodity market for charitable donations and anyone can participate.

Blockchain provenance enables your organization to automatically issue Donor Acknowledgement Letters. Including your organizations tax id gives the Ether donor the ability to claim their donation on their taxes.

Donations are designed to be made through Metamask. Metamask is a browser extension that enables the browser to communicate with the Ethereum network. This tool makes it possible for you to embed on your current donation pages an HTML snippet visible only to Ethereum users that gives them the ability to donate to you cause.

MetaMask protects your organization from privacy risks. No personal data is ever stored on your servers or ever needs to be. It is not possible to hack I Gave and steal user information. Donations are not subject to chargebacks or traditional payment processing fees.

The HTML donation snippet used to interact with Metamask is similar to including an embedded tweet on a webpage. It is designed to be unobtrusive and a ‘copy and paste.’ If Metamask is not detected, the snippet can hide itself.

The immutability of the blockchain means that the I Gave contract will run the same, each time. It guarantees the security of the digital assets (I Gave certificates & IGV tokens). It provides a history of every campaign, donation, and token ever issued – the same security afforded to the Ether currency is afforded to the I Gave tokens.

Cryptocurrency enables efficient microtransactions. Ethereum enables transactions of any amount for very low costs from anywhere in the world. Ask for items as small as a bar of soap or a bottle of water.

For Philanthropists

Charity is too often an unsung deed. The cryptocurrency community is well known for its giving[8]. Though nothing exists to commemorate the act other than a transaction hash.

The I Gave smart contract rewards philanthropists with cryptographic proof of their donation in the form of a unique ERC-721 Token Certificate. Make donations by purchasing I Gave certificate tokens representing the specific charitable item. Instead of generic dollar amounts, an I Gave donation represents something tangible.

Over time philanthropists build a collection of tokens that represent the items they've given to charitable causes. Initially, each token can be used to identify and issue a tax deductible donation certificate by identifying the donation certificates attached to your metamask account. Donor tokens will also have a voting rights with the I Gave DAO. Over time, Donors will take control of the DAO.

Every certificate is unique to its campaign and limited in supply. A donor paying for a bottle of water will receive a token stating they gave '1 bottle of water.' You will know which bottle of water is yours.

MetaMask + identifying a donor token could be an authentication or identification mechanism. I.e. Only accounts possessing tokens linked to a campaign, cause, or charity have access to some site or forum. Or VIP channels where high level donors have exclusive access to coordinate together, without necessarily having to disclose their identities.

Token Certificates may also function as a reputation mechanism among charities. Long term plans, the DAO may consider granting voting privileges to donor token holders. I.e. Each donor token is worth a number of DAO votes equal to the Ether donated divided by some amount.

For Holders

I Gave has a need for governance. Each month 1% of the funds raised on the platform go to the I Gave DAO to supplement the monthly allowance. When ICO funds run out, DAPPs will generate income for the DAO.

Initially DAPP and DAO governance will be controlled by the founder. Responsibility will transfer to the Holders over the course of one year. Holders will control the I Gave DAO and DAPP with a voting contract. ERC-721 donor tokens will have voting rights with the I Gave DAO. As time goes on, ICO funds will diminish and donor tokens will increase. A flippening will occur where donors will have the majority vote in the DAO.

The majority of dev funds will be locked until token voting begins. Dev funds will go to the DAO.

Veto privileges enable holders to cancel funding campaigns by preventing token sales for non-charity or frivolous causes. Funds voting will deploy as soon as it is available but no later than the holder transition 1 year after the ICO.

Initially 10% of token balances must back a proposal for it to succeed.

Partnerships

Individuals and organizations can partner with I Gave. Partnered organizations are eligible to receive funding from the I Gave DAO funds.

Partners escrow fees are waived for starting campaigns on the I Gave DAPP.

Selection of partners will be determined by the founder until holder voting takes control. Partners will be capped at 5 until voting begins. This is primarily to build early partnerships with charities and to establish some baseline for expected results.

Only accounts on the partnership list are eligible to receive DAO funding. At launch, eligibility for partnership and funding will require that the organization use the I Gave DAPP to add Ethereum donation support to their current campaigns.

Campaigns

A Campaign consists of a name, owner, starting block, ending block, list of certificate tokens, and a veto flag.

To start a campaign on the I Gave DAPP contract you must escrow Ether. I Gave waves the escrow fee and campaign delay for partner organizations.

The I Gave website will provide a Metamask-enabled dashboard for interacting with the contracts. Campaigns can be started and certificates issued through an HTML form. Each token added to a campaign has a campaign id, name, supply, and price.

After creating a campaign and issuing tokens the dashboard will provide the user with copy and paste HTML snippets they can add to their donation websites.

Offerings

All products and technology will be made open source.

Embedded Donation Button

An embedded HTML element that fundraisers may include on their own website to collect Ether donations. The script will detect Metamask and present the user with the ability to purchase the token. This is customizable with CSS to match the native look and feel of the branded website.

If metamask is not detected the button can be set to hide itself.

The donation button can be included on any website. Anyone wishing to support a cause may include donation buttons on their site.

The I Gave DAO

Token holders will have the opportunity to participate in governing the I Gave DAPPs. The DAO will use a proposal contract to govern the I Gave DAO and DAPP.

Each token will represent one vote. Total votes will determine the amount of monthly funds that can be spent on each proposal. Votes can be cast on one funding proposal each month. Votings rights may be delegated.

Vote delegation provides another incentive structure for organizations to exist that wish to steer funding but provide token holders with additional incentives to win their voting rights. In addition, delegate organizations provide additional security for the DAO.

If a cartel or bad actor were to attempt to add themselves to the partner list and fund themselves they could only withdraw the remainder of each tokens original ICO contribution. This effectively works as a withdrawal mechanism over a long period of time. They would also have access to a small percentage of DAPP funds each month.

If the DAO were to become corrupt beyond recovery the good actors could fork the current DAO & DAPP code and start again. Each month they could continue to submit DAO proposals to move their portion of the funds to their new DAO. An added inconvenience, but not unrecoverable.

The remaining bad actors are left to slowly withdraw the highly illiquid ICO Ether they, technically, bought at a market price. Not a very good deal even if they are able to buy up all the remaining tokens from the good actors. They've effectively created a new high risk asset and likely won't get their money out in their lifetimes.

Delegations are the secondary means of defense against this perverse incentive. There is no reason not to delegate as those who wish to control votes will likely incentivize token holders in some form for their voting rights.

Delegates interested in governing an effective DAO have a communal interest in squashing bad actors. Since token holders can withdraw support at any time this reduces the risk of perverse collusion. Delegate organizations representing the holders would immediately censor bad actors. If they became bad actors themselves, holders can withdraw their voting rights.

Third, it's probably more profitable to attackers to just hold the token.

Fourth, DAPP Developers could fork their own projects and insert their own intermediary contract controlled by the DAO that censors the corrupt token owners – Literally hard coding payout addresses to known good actors. This is much more extreme, complicated, and should be considered a broken ultimatum.

How will DAO funds be stored?

DAO funds will **not** be held by the founder. Funds will be controlled by DAO token voting. The DAO will have a trust / wallet contract. This contract will be the store of ICO funds and receiver of DAPP fees.

The contract will unlock a set amount in a monthly round. Each token will represent a portion and can vote on which charity to fund. Funds that are not spent will be added back to DAO funds, extending the life of the fund.

The DAO wallet will only be able to send funds to a list of charitable partners, set by the founder at creation and later the DAO. The contract will enable the DAO to add and remove partners and change the monthly payout amount. The monthly payout will be hard coded to never go above 1% of the initial funds.

To achieve this end we will use multiple DAOs. The recipient of ICO funds will be crippled. It will only be able to create 1 proposal - fundDaoPartner. It will track DAO partners, monthly voting rounds and unlock funds each month. Each token may vote once per round. This DAO is a time release Trust Fund Wallet that can only send funds to addresses on the partner list. Tokens that do not vote will have their funds added back to the Trust.

The second DAO will be a fully functioning DAO. It will have ownership of the Trust Fund DAO. It will be able to add and remove partners and change the monthly funds unlocked - but not over 1% of the initial ICO amount.

I Gave DAPPs may pay directly to the Trust Fund DAO.

I Gave DAO: Token Contract

Name: I Gave Token
Symbol: IGV
Max Supply: 50,000,000,000
Decimals: 18
Exchange Rate: 1 Ether : 100,000
Ether Spot: $1000 - will depend on market price

IGV will use OpenZeppelin for its Token and Crowdsale contracts.

The role of the token is to provide a voting mechanism. Over time, ERC-721 donor tokens will gain voting privileges with the DAO.

ICO

These figures and numbers are going to change. The focus is on building products that solve a problem. The ICO will happen after that goal is met.

The ICO will be capped at 50,000,000,000 IGV. The exchange rate will be 1 Ether = 100,000 IGV. A successful ICO will create a minimum of 100,000,000 IGV (100 Eth). Contributors may withdrawal post-ICO if funding fails.

Funds given during the ICO will receive a one-time Founders ERC-721 token certifying the amount given to the DAO. This certificate will persist whether the ICO succeeds or fails.

Charitable Operation Funding Timeline

The ICO is capped at $50M USD based on a $1,000 Ether valuation. $50M will be the max goal as that will immediately cement the DAO as one of the largest charitable organizations in history. All funds will remain part of the DAO with the exception of the dev fund.

All ICO Funds will be distributed alongside the .5% of monthly fundraising fees. ICO fund disbursement will follow a timeline depending on the total funds raised. After ICO funds are spent, the .5% monthly funding fee will be the primary donation to charity.

Goal	Ether Raised	Payout	Interval
Minimum	100 Ether	5 Eth	20 months
Maximum	50000 Ether	50 Eth	1000 months

These projections are based on a static price of Ether. Which is very unlikely.

Optimistically, if the price goes up the amount may be lowered or interval extended. The goal of the ICO funds is to provide runway to incentivize organizations to use the technology.

Similarly, if a market crash or correction takes place the same mechanism may alter the schedule to freeze or trickle funds until the market returns.

Team/Dev Fund

A Dev Fund will represent 20% of the funds raised. The majority of the fund will remain locked until token voting begins. Funds will be locked according a sliding scale. The portion of the Dev Fund unlocked at the ICO will be called the Team Fund. This will go to the developers, advisors and contributors of the ICO.

Post ICO the DAO will vote to unlock Dev Funds and developers or projects separate from monthly charity funds.

Total Eth Raised	Team Fund Amount (20% of Total Raised)	Team Funds Locked	Max Unlocked Team Funds
100 - 2500	20 - 500	50%	250

2500 – 5000	500 – 1000	75%	(250) + 125
5000 – 10000	1000 – 2000	90%	(375) + 100 Eth
10000 – 25000	2000 – 5000	98%	(475) + 60 Eth
25000 – 50000	5000 – 10000	100%	(535) Eth

Progress accountability will be blogged weekly/monthly.

The release of dev funds will be controlled similar to Vitalik Buterin's recently proposed DAICO model[7]. Token holder vote will decide how much of the fund is unlocked beyond the initial unlocked ICO dev fund.

I Gave DAPP

A DAPP is a decentralized application. It is unstoppable Software logic that exists purely on a blockchain. It's code is run and validated by miners on the network.

The I Gave DAPP provides charitable fundraisers a decentralized platform to raise Ether. Fundraisers use the DAPP to create campaigns, issue tokens, and withdraw campaign funds. Philanthropists purchase campaigns tokens from the DAPP to make donations.

Campaign tokens are ERC-721 compliant. Registered charities may include their Tax Id on their campaigns.

I Gave DAPP – ERC-721 Non-Fungible Token Contract

Name: I Gave Asset
Symbol: I<3
Campaign: Set by the fundraiser.
Amount: Ethereum donation amount
Unit: The need being sought, E.g. '1 bottle of water'
Data: Optional number value, recommended: 0,1,2 for small, medium and large

Also referred to as donor tokens throughout this text. These are the tokens fundraisers issue that represents their need. Donors receive these tokens for contributing to a campaign. Each campaign sets a timeframe and a total supply to each campaign token. After the campaign ends or their supply runs out no more tokens of that type will ever be issued for that campaign again.

Once donations are tokenized a commodity market for donations is created.

Security & Censorship

There will be attempts at abuse. A veto function can remove campaigns and tokens. An incubation period before campaigns go live can exist. Escrow can curtail frivolous campaigns.

At release, these powers will be controlled by the founder. This will transition to token holders within a year.

Roadmap

In less than ten years we've built ourselves a reputation as drug dealers, money launderers, terrorists, and scammers. Whether it’s true, or not.

This project means to challenge to our community. The double standard set for non-profits incites the same feelings in me that I felt when I got into cryptocurreny in 2012. These organizations are our allies.

No one innovates in their space. It's very easy to empathize with organizations who are already pushed to the brink. They can't take the risk. We can.

But we have pushed ourselves to the point where people will take our money but are dubious to associate with us.

Solving the tech debt with scaling is not the end of our race. There are mountains of debt in reputation, brand, customer service and user experience.

We've created a bubble. Not with the price but with the direction we're all heading. When the market finally corrects we may not recover. This project is not a part of the crypto gold rush. If anything, we are going in the opposite direction.

This is a chance to show the power this technology has to affect change. If we want to build the world we want to live in we have to prove that the tools we use can do it better than those that came before.

Use Cases

Individual Philanthropists

A Coastal community experiences a natural disaster. They are cut off from food, electricity, and freshwater. A retired truck driver hundreds of miles away starts a campaign. They fundraise necessities, and fuel their truck.

They issue tokens for 1, 5 and 10 gallons of diesel fuel, cases of bottled water and emergency food supplies. Each token is denoted in Ether according to its real-world cost.

Communities in Need

Entrepreneurs in the third world can be threatened by donations. Blind charity can have a negative impact on small economies. Entrepreneurs and small towns can raise funds for materials and resources and lift themselves up.

Research and Development

Jane is a cancer researcher and lab time is expensive. She is able to tokenize units of lab time – 30 minutes, hours, days. The entire world can fund Jane's lab time. To acknowledge the donors, she includes a short message from each donor in the preface of her research paper.

Access and Events

A crypto-arborist is fundraising to save a forest. They decorate a living Christmas tree with Internet of Things enabled light bulbs. For every bulb on the tree, a token is issued. After purchasing a token, donors visit a site where the charity identifies the donor token and presents a controller app so they can change the light's color, brightness and add a short message.

Each year, previous donors have a spot on the tree and new donors sponsor a new tree.

Virtual Reality

Projects like Decentraland are using Ethereum to build a public virtual world. While virtual reality provides a video game-like experience, it is possible to add digital property like a crypto kitty or an I Gave token to a virtual environment and interact with it.

It is entirely reasonable that a person in a virtual home, for example, could manifest their I Gave certificates in their virtual world. These virtual items would be unique, in that they have some form of provenance. They are not just randomly generated game code – they have cryptographic proof of their uniqueness.

Large Organizations

Donor tokens can be used to detect and provide access to separate parts of your website. MetaMask enabled sites can check if the visitor possesses any donor tokens. This enables high-end user experiences for million dollar philanthropists. This can be done while maintaining the privacy of the user's identity.

Local Impact

A baseball team needs jerseys and equipment. Each player's jersey is represented by a token. Each donor sponsors a player on the team. The team thanks the donors by creating their own team

website. They use the web3 library to detect when a donor arrives and gives them updates on the team/player stats.

Collectibles

One player falls in love with the game. They grow up to become a famous baseball player. They wear the same number from their first jersey their entire career. The original donor passes the token as an inheritance in their family, like a rookie baseball.

Virtual Pet Adoption

A no-kill animal shelter needs to raise money to pay for healthcare, room and board for their animals. They issue a token for each pet. Donors adopt the pet by paying for a full year of care. While waiting for adoption, the shelter provides the donor with pictures and video of their adopted pet playing with caretakers.

Philanthropic Organizations

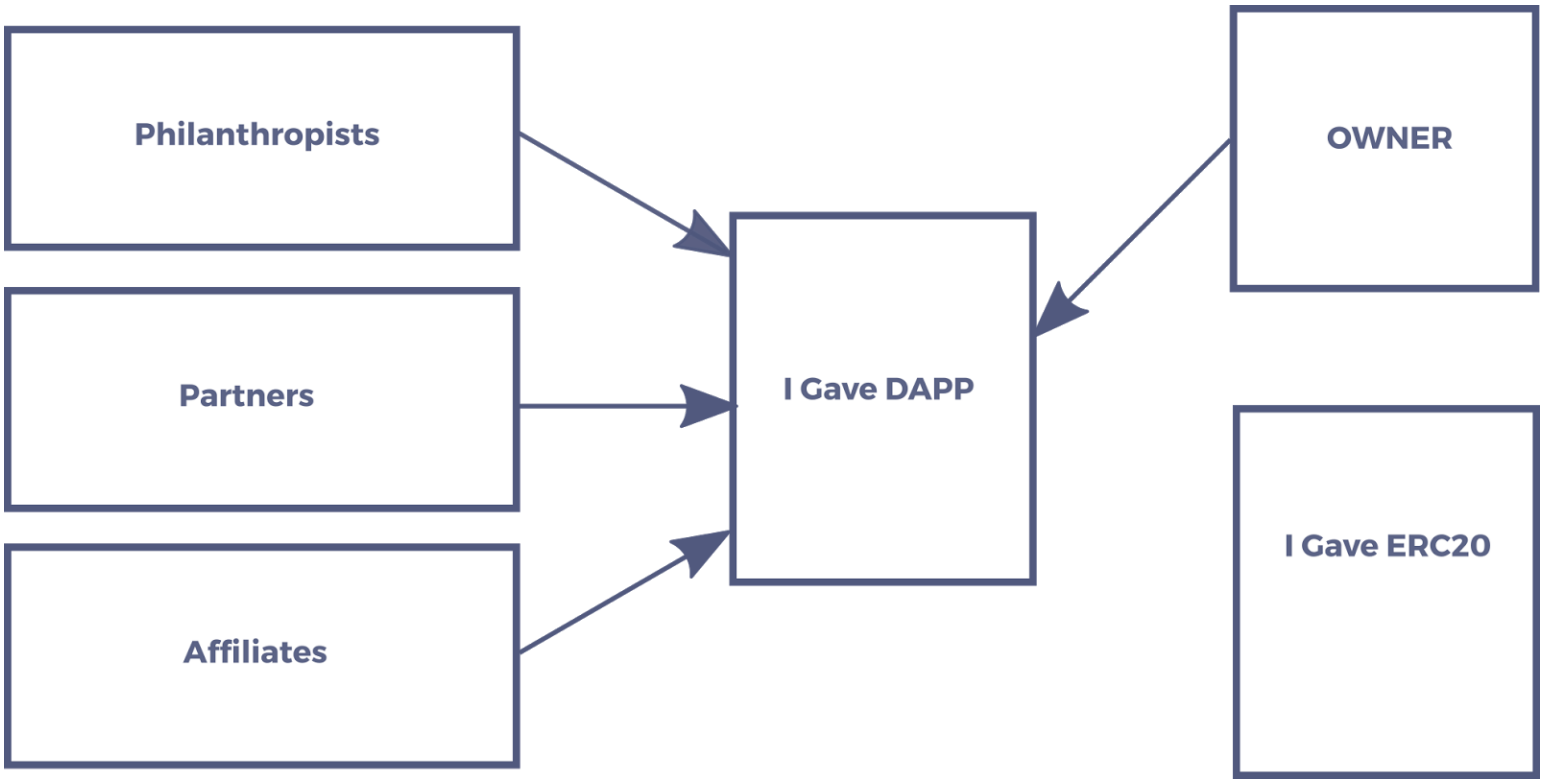
An uber wealthy philanthropist commissions a website that uses MetaMask for access control. They wish to remain anonymous but organize with their peers. Instead of usernames and passwords, they require you control over 100 Ether worth of donor tokens.

This gives the philanthropists greater control over their personally identifying information. Combined with existing security identity becomes a push transaction. It also restricts access to communication channels. Only those who can provide some cryptographic evidence take part.

They meet in secret, plotting, their identities unknown even to each other… to save the world.

Addendum I: High Level Diagram

Phase I - Launch



Philanthropists
  Make charitable donations purchasing ERC-721 tokens

Partners
  Create charitable campaigns and issue ERC-721 tokens to the campaign. Do not pay escrow fee.

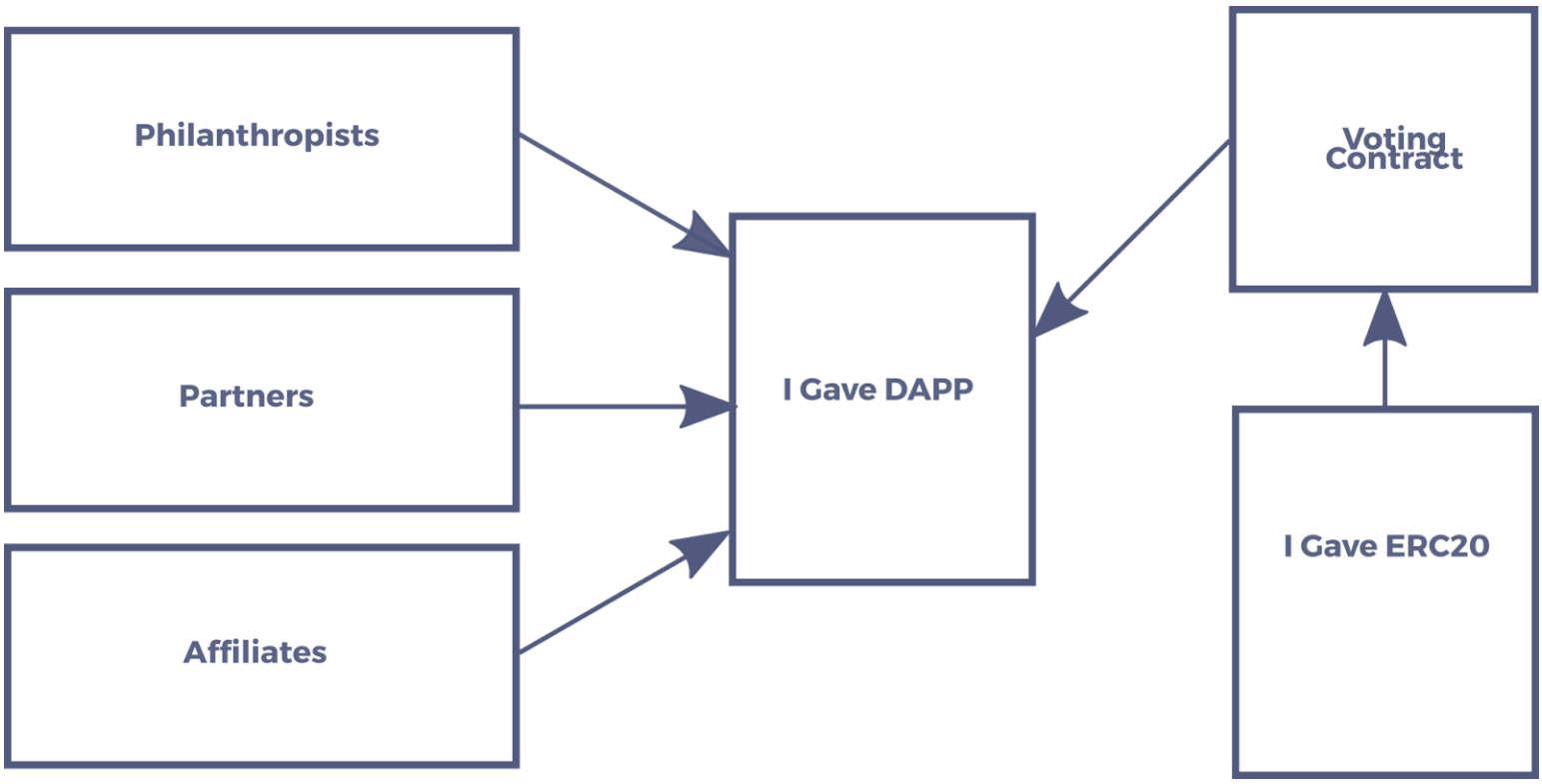
Affiliates
  Create charitable campaigns and issue ERC-721 tokens to the campaign. Pay escrow fee.

Owner
  Govern I Gave DAPP. Veto frivolous campaigns. Change escrow amount. Change owner. Add Partners.

I Gave DAPP
  Smart contract tracking Campaigns, tokens and tokens held by philanthropists.

I Gave ERC20
  Token contract for DAO governance.

Phase II



I Gave DAPP Ownership changes control to a voting contract. Voting contract will accept proposals from I Gave ERC20 holders. Holders will have the same abilities as the owner in Phase I.

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