TEZOS & GITCOIN HACKATHON
PRESENTED BY MINER AND FOREST
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Curation DAO Framework

The Curation DAO framework is a token-holder-based voting system with the goal of supporting artists and incubating collections. Token holders stake their tokens to accrue votes. Votes are utilized to show support for Artist Applications. The more votes an Artist receives, the higher the chance they are spotlighted by the DAO. The Curation DAO acts in conjunction with a Foundation partner such as a museum, studio, or other centralized entity. This framework allows for a larger sum of persons to support the incubation and new collections of artists entering the web3 space on Tezos.

Curation DAO is the curators of culture. Guiding the way for the foundational partner to strive and see the artistic perspective of the masses. Tokens become the medium of voicing opinions and sharing views. Democratizing the direction of artistic expression through tokenized representative voting allows for this community-driven guidance. A foundational partner gets a new audience keen on representation and artistic expression.

The g-token model produces non-transferable vote tokens for use by individuals to show support for artists in the application. The g token is positioned to serve as a quantifiable on-chain earned vote within the DAO. gCDT represents shares within the rounds of voting, whether it be within the application process or royalties' distribution. Quantifying high conviction within the DAO

Artist Application Process

Applications are submitted by an Artist. This application consists of past work, inspirations for hosted collection, medium, and samples + proposal for potentially featured collection. This application is then vetted by the Curation Foundation (or museum counterparty). This point of centralization allows for partner stakeholders to have their say, and act as a spam deterrent/filter. Deeming which applications should be voted on by the holders. Holders do not need to receive applications of spam or unvetted artists, the criteria will be established with the partner and posted ahead of applications opening so artists are aware.
Applications would consist of vetting from the Foundation (or any centralized entity). The application process is highly customizable relative to the need of the entity enacting the framework. Museums can put in place applications, competitions, and contests; a multitude of frameworks and processes can be utilized as a means for voters to judge and show support. The means in which the information is presented to the DAO of voters can get as creative as the centralized entity is willing to be.

Voting and g-Tokens

Voting by token holders occurs based on a ve-token non-transferrable system. Staking the Curation DAO Token (CDT) for Governance CDT (gCDT) is how votes in the system are earned. Each earned g-token (referred to as gCDT) is equivalent to 1 vote. Votes can be distributed among several artists in the application field per quarter. Voting is also a rewarded activity in the Curation DAO. If token holders allocated 100% of their g-tokens to artists in each voting window, the rewards for participating in voting are received. These rewards are paid in CDT.

Voting to earn is not an all-or-nothing system. Voters are encouraged to use 100% of their g-token allowance per voting cycle. They are incentivized to do so with the CDT emissions per quarter. These are paid in relation to the # of gCDT used. The more gCDT used, the more CDT earned for voting. This relationship is linear.

If 100% of gCDT are cast for the quarter, 100% of CDTs due are rewarded for that quarter. If 50% of gCDT are cast to vote by a Voter, then 50% of CDTs are rewarded. There is no slashing of staked CDT for not voting. Voting is an opt-in process and those holders that do vote are rewarded for their input. Inflation is capped at 3% per quarter if 100% of g-token are cast. The initial supply is 500,000 CDTs.

CDT can be staked to generate gCDT. gCDT is neither transferable nor tradable due to the design of the smart contract, i.e. they are locked in the private wallet of the user. One staked CDT generates 0.042 gCDT every hour. The maximum gCDT held from a deposit is 100 times the CDT staked. In other words, it takes about 3 months to reach the gCDT cap. You can always stake more CDT to earn more gCDT. You can withdraw your staked CDT any time. However, your accumulated gCDT will drop to 0 as soon as you unstake any amount.

This framework for scaling revenue along the gCDT holders is a path with minimal friction and high ease of use. Feasibility for revenue share and distribution from POL, the marketplace, and inflation are all scaled relative to the gCDT.

Royalties & g-Tokens

Royalties are designed by the artist upon submitting the collection. Of the initial collection, the artist can choose to allocate all or a portion of his royalties to voters that support them. The gCDT cast by voters acts as a pool to determine how royalties are shared.

How you vote for artists also affects the long-term individual holdings of the voters. gCDT allocated to artists acts as the % weight in the royalties' pool for the artist's rewards. This allows voters to earn rewards to support the voting process. A detail of a successful artist launching and sharing royalties with voters is below:

Ex. If Voter A votes 100 gCDT to Artist John, and Voter B votes 20 gCDT, and the entire pool is 120, Hodler A earns 83% of the royalties from the collection shared by Artist John.

Royalties can become a tool to win over voters that are looking for bigger shares of the secondary market profit. The royalties acting as an internal, structured bribe system for artists keep a transparent show of support and residual profit between investors, artists, and secondary markets. This level of transparency between creators and backers for the open market is unique.

Royalties' payments would be automated via smart contracts, allowing payment directly to stakers addresses. Voters would then receive their benefits whether staked and token holders or not. This ensures voters receive rightful royalties regardless of status relative to the DAO.

Marketplace & Royalties

The digital NFT marketplace acts as a digitized, scaled museum marketplace housing the collection from the incubated artists. The marketplace serves as a means of managing royalties on the secondary, allowing for one centralized house from mint to secondary sales. The Curation DAO Marketplace becomes both a museum visitor-facing, artist-facing, and investor-facing interface operated by the DAO and Museum in tandem.

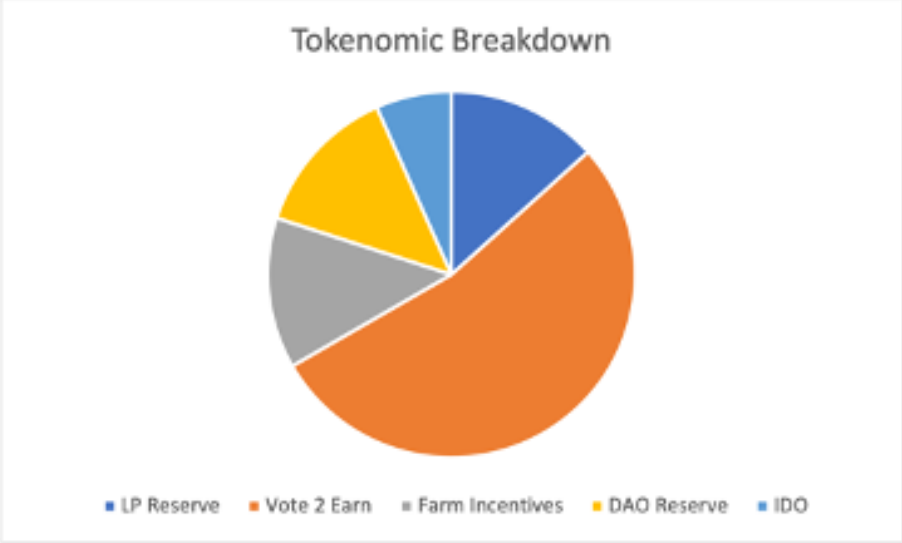
Royalties are distributed on secondaries via the gCDT pool of votes. The bigger a percentage weight in the pool, the more percentages of royalties you earn relative to other votes. Votes are accumulated for artists in the application and voting phase. Royalties in this case do not act as continued sell pressure for CDT as the royalties would be distributed in the marketplace currency of Tezos.

Rewards & g-Tokens

Unstaking CDT ends and burns all gCDT accrued by the staker. This may have holders concerned regarding royalties for voters. gCDT balances used for royalties are snapshotted and recorded, so unstaking after a vote will not affect royalty payouts for past voting rounds.

This allows users to exit gCDT positions and even CDT positions after a vote has occurred and royalties from the artist will still be passed to the proper supporter of the artist. This can be seen as a potential issue rather than a benefit depending on the view of the individual. This can also be seen as a limitation of the protocol. Allowing voters to exit the DAO and positions but still receive benefits to take outside of the system can certainly be seen as a downside rather than a benefit of free choice.

Tokenomics
Liquidity Plan



The tokenomics for the Curation DAO Token (CDT) are broken down into six main sections: LP Reserves, Farm incentives, Vote-2-Earn, IDO, and DAO Reserves. This breakdown of tokens allows for the expanded usage of the token outside of voting purposes. A robust DEX liquidity plan supports the tokens' healthy liquidity providers and offers the DAO the opportunity to host Protocol-Owned Liquidity (POL).

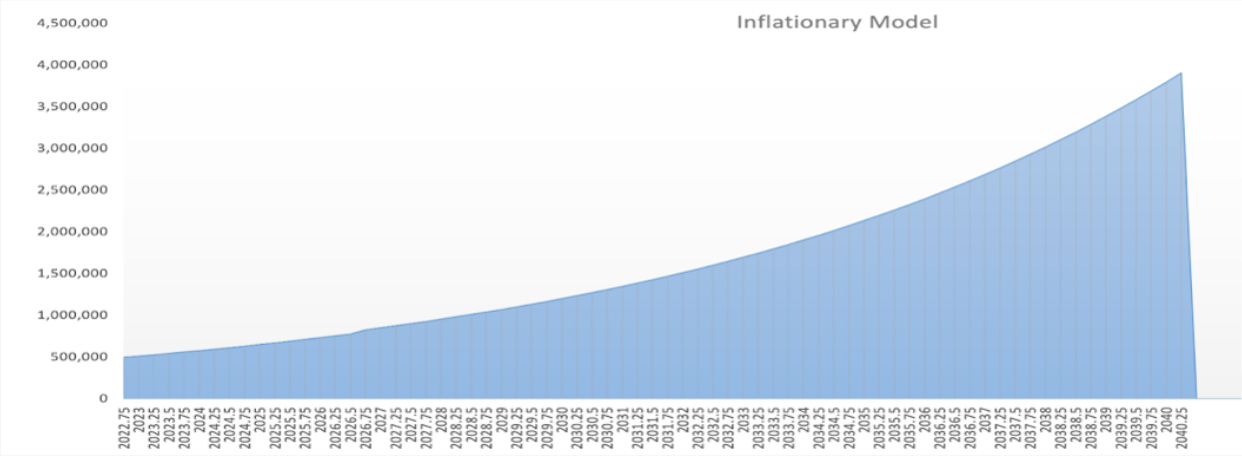
POL would be housed in multiple signature wallets. These wallets would be set up for the DAO. POL offers the opportunity for trading fee revenue to be earned for the organizations. POL also offers the opportunity of gCDT to be utilized once more. Stakers within the system could earn yield from the POL weighed from their gCDT balance relative to the total supply gCDT.

LP Reserve	**1,000,000.00**

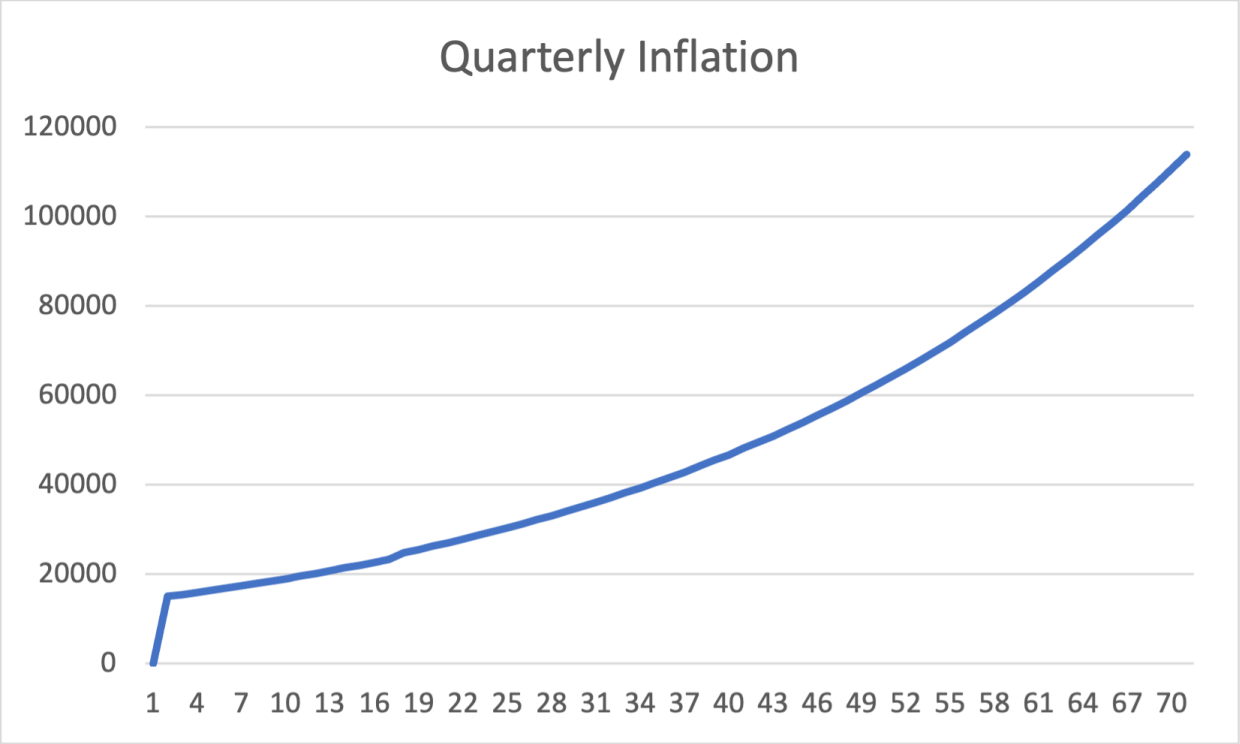
Vote 2 Earn	4,000,000.00
Farm Incentives	1,000,000.00
DAO Reserve	1,000,000.00
IDO/ Initial Supply	500,000.00
Total Supply	9,000,000.00

Voting Inflationary Schedule

Vote-2-Earn offers a runway of liquidity hosted at a quarterly inflation rate of 3% when all g-tokens are utilized in the previous round of voting. What this system is designed to do is support an active DAO. If member voting tappers off, so do quarterly rewards. Having rewards lag and follow the DAO usage metric of previous round voting allows for closely controlled inflation relative to interest and usage. The closely tracked metric of voting usage by the protocol allows the Foundation and DAO to monitor the liquidity of the LPs and properly support the decentralized voters framework.

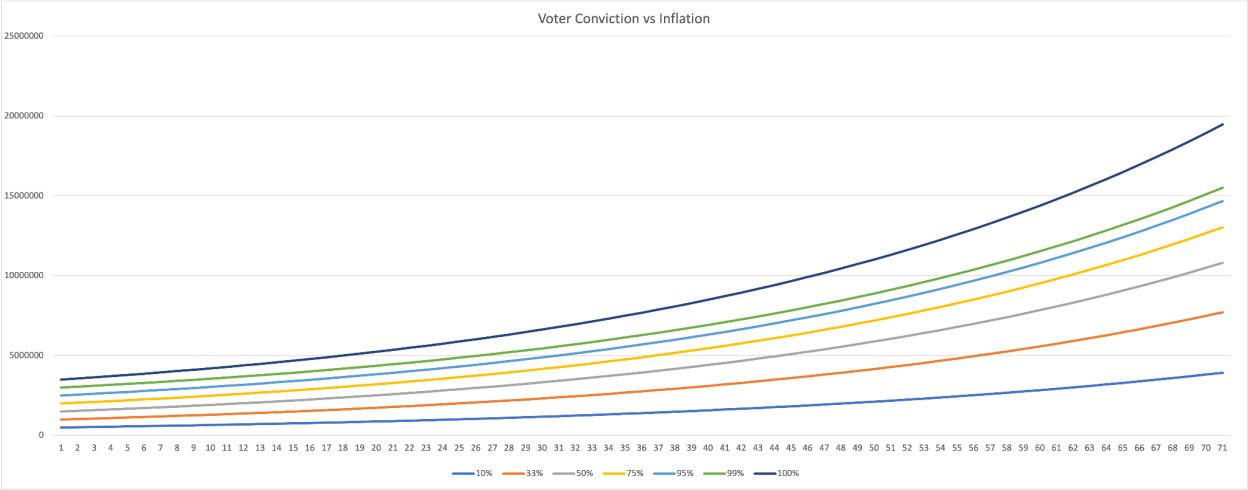


Curation DAO Tokens are distributed to stakers who vote (Voters). These active votes, when voting with 100% conviction rates per quarter, will cause an annual inflation rate of roughly 12%. With an allotment of 4 million CDT for voters, it would take until the end of *Q1 2040* for CDT rewards for voters to end. The DAO has the option to vote and lower emission rates by the protocol, but a hard coded cap of 3% per quarter would be enacted.



Quarterly inflation numbers are dependent on the conviction rate of voters. The curve of inflation is affected the # of gCDT used to vote in the previous round. If 100,000 Votes are casted of the 1,000,000 used, only 10% of the potential inflation is delivered. This inflation is directed to voters. This directed inflation allows for super directed inflation to active members, a no determent policy (no slashing), and the ability to unstake with no fee (only the loss of gCDT accrual).

Voting is tied to emissions, linking conviction to voting with the dynamic emission structure incorporated in the Vote 2 Earn mechanism. If the DAO votes with a consistent conviction for the duration of existence, even at 50% of expected conviction, emissions are only curbed by 2.5% over 18 years. This shows that though the conviction is tied, it is not overwhelming downside pressure. Allowing the DAO to further curb emissions is always a voting strategy for token emission management.



Convicted Voting works as one means of emission curbing. As shown in the graph above, convicted voting results in exponential growth over time. This would ideally be met by increased voting. In a less convicted DAO environment, emissions are curbed, with a much less demanding curve of emission. This gentler slope would be paired with the less active DAO, so as to not cause excess stress on the DAO. 100% represents the Quarterly Inflation graph above, this graph represents voter actively relative to 100% usage.

The combination of gCDT, Vote-2-Earn, and dynamic inflation based on usage allow for a unique DAO voting system. The system above provides one potential path forward regarding the tokenomic backbone for a DAO to work in conjunction with a centralized entity such as an Art Foundation, Museum, or Studio. The art of balancing a centralized entity with a decentralized component provides the framework to properly compensate participants for relative risk and energy spent. Voters are responsible for managing inflation, when the voting becomes overrun, the DAO has the option to further curb quarterly inflation both for short-term and long-term timeframes.
The centralized entity has the responsibility for vetting the applications the voters receive. High-quality material is required to have a highly educated and aware voter base. Giving the DAO a smaller, more pointed number of tasks to decide on allows the DAO to be more effective with the decision it makes. There is a must for the share of responsibilities and rewards between decentralized and centralized entities, especially within the art space.

Challenges & Risks

The main challenge of this infrastructure is not code-based, nothing here is entirely new. This strategy brings together unique on-chain solutions in a brand-new format to scale a museum's ability to utilize web3 infrastructure for the tokenization of

art and decision making. Decentralized decision-making brings a unique set of challenges, ones that Curation DAO meets head-on.

One issue for decentralized decisioning is social loafing and untether inflation. One assumption token economists make at times is the idea that voters will maintain a 100% conviction rate without the need for a changed incentive strategy. This is a hard assumption to meet. When making an assumption for a protocol, I'd rather assume inflation should be tied to voter usage. Voter usage is a quantifiable metric for tracking the activity within a DAO. Tying rewards for an ecosystem to the active support for the system makes clear sense in generating an active DAO from a voter usage metric or from a slowing inflation metric.

Another challenge within the decentralized proof of staking voting is malicious whale activity. One metric used to track this is unique wallet holders. This tracks how many voters are from X wallets. A cap on gCDT per CDT is one means of helping to deter a runaway financial takeover of the DAO. A decentralized share of the DAO allows for mitigated risk.
Overall, the Curation DAO governance model allows for a unique approach to revenue distribution and within the structure. CDT and gCDT offer a unique position for art lovers and museum supporters to support upcoming artists and be rewarded for doing so.