



Cryptotwilight Productions

# DAO Verity

## Bringing the DAO to Curation Spaces

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### Introduction

The following paper has been prepared with a view of enabling an archetype for curation DAOs that enables them to retain their verity whilst being heard, all in the face of numerous governance challenges. This paper will focus on the real world challenges that affect the artistic curation business and how evolved governance models available to DAOs can provide an alternative model for achieving aesthetic and commercial sustainability.

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## What is a Curation DAO?

Curation is the act of assembling together various information with a specific intent or purpose of use in mind. A Decentralized Autonomous Organization is an organization that is brought together and managed through smart contracts. The current concept of a Curation DAO is an organization that is brought together to curate certain items where decisions are governed and managed by a series of smart contracts with activities supported by individuals dispersed across the globe usually with no central locus of human authority. The curation concerned can be either physical or digital, artistic or scholarly. To illustrate a Curation DAO could come together to organize a museum installation or an artistic festival centered around a specific theme or topic.

## The challenges facing Curation

Curation is the foundation of cultural expression with the modern day custodians of this expression usually being galleries for artistic and museums for scholastic. For this paper we will refer to both as Curation Spaces. However both of these institutions are facing hitherto unseen challenges due to the freedom of information in the digital age. Some of the challenges are:

1. Reduced funding
2. Declining communal relevance
3. Cultural restitution

## Funding

Whilst this was an issue for curation spaces prior to the pandemic with changing visitor tastes and rising costs, the pandemic has brought into sharp relief the sustainability model for many institutions<sup>1</sup>. As benefactors of philanthropic and institutional funding the reality is that these sources are declining with ongoing global changes.

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<sup>1</sup> [The cost of the cuts: what now for UK museums as the Covid-19 crisis bites?. THE ART NEWSPAPER. accessed 19/06/2022](#)



## Communal relevance

Curation institutions have two primary purposes, artistic and scholastic. Appealing to the general public has arisen more out of necessity and less out of design<sup>2</sup>. This trend has been further exacerbated by the onset of digital experiences and rising consumerism which has left would-be revenue generating visitors too time-poor to enjoy the available experiences.

## Restitution

*"The whole art world is colonial in the way it's constructed. Art in itself is complicit in [contributing to] the 200-year history of capitalisation, globalization and industrialisation..." - Alistair Hudson<sup>3</sup>*

The issue of restitution of artworks back to their native lands is a growing issue that cannot be excluded. Indeed with the growth in digital theft of artworks<sup>4</sup>, the concept of restitution is one that needs to be paid forward as opposed to being left as an afterthought.

## Introducing the Curation DAO

Curation DAOs provide a unique solution to the challenges facing existing curation spaces. They enable a deeper involvement of the community whilst still allowing the space to shape itself as it sees relevant. This is exhibited by the properties of a DAO whereby membership can be tokenized hence allowing individuals to enter and leave freely, whilst activity can be trustlessly observed on the blockchain providing an indication of member engagement on issues.

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<sup>2</sup> [SCIENCE MUSEUM GROUP JOURNAL](#), accessed 19/06/2022

<sup>3</sup> [The cost of the cuts: what now for UK museums as the Covid-19 crisis bites?](#), THE ART NEWSPAPER, accessed 19/06/2022

<sup>4</sup> [Huge mess of theft and fraud: artists sound alarm as NFT crime proliferates](#), The Guardian, accessed 19/06/2022



## Introducing Tokenomics to Curation

*“Tokenomics is the topic of understanding the supply and demand characteristics of cryptocurrency”<sup>5</sup>*

The closest equivalent to a cryptocurrency in the curation space would be the idea of loyalty points however this idea does not provide the purchase that is available with tokenization. With a view of the three challenges highlighted above the introduction of tokens to a Curation space would confer several potential solutions.

### Evolved Funding

Funding for a Curation Space such as a museum or a gallery could be enhanced by enabling visitors to purchase tokens issued by the Curation DAO. The service contracts would be provided by the Curation Space chain. These Curation DAO tokens could then be used to access various collections in the space in multiple media formats such as augmented reality on mobile or mobile app based online audio translations or texts. The tokens could also be used to enable casual visitors to suggest, choose and fund upcoming exhibits directly.

The cryptocurrency space by default is totally open and decentralized hence it is prone to many of the inherent dangers of financial raiders and hackers. To protect a Curation DAO issuing a token and Curation Spaces dependent on that token, the idea would be to provide “backed tokens” that the Curation DAO treasury would directly reimburse. The reimbursement would have two elements:

1. a preferential rate for Curation Space reimbursement and
2. a standard rate for member/public reimbursement.

The preferential rate would always redeem at **Treasury Value (TV)**, i.e. if the market price for **Curation DAO Tokens (CDAOT)** goes above **TV** the Curation Space would be able to benefit from the increased token value, however if the market price fell below **TV** the Curation Space would be protected from significant losses<sup>6</sup>.

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<sup>5</sup> [What is Tokenomics?. CoinmarketCap. accessed 19/06/2022](#)

<sup>6</sup> This assumes a significant amount of risk averse behavior from the Curation Space



For Curation DAO members and the public any unspent CDAOT could be redeemed at a rate capped at 10% of the **Fixed Mint Price (FMP)** direct from treasury, where the market price is above or equal to **FMP**. Where the market price is below **FMP** the treasury would redeem at 10% of the market price.

To illustrate assume a CDAOT FMP of **\$1**:

- a Curation DAO member would receive **\$0.10** should the market price be **\$1** or more.
- If the token market price dropped to **\$0.90** a user would receive **\$0.09** and so on

Hence for financial raiders there is the immediate disincentive of a 90% loss of value and for the community there is the protection of buying directly from mint. The focus of this model is to ensure that Curation DAO Tokens are not converted into investment vehicles, and therefore remain wholly utilitarian.

The model makes the following assumptions:

1. Minting would be direct from Curation DAO Treasury contracts
2. Treasury would convert all received funds into stable coin currencies like USDtz, GBPtz, EURtz, CADtz or similar
3. Fiat conversions are transparent and frictionless
4. Curation Spaces would set CDAOT prices based on Treasury redemption value

## Staying Relevant

For a Curation Space embracing a Curation DAO as part of strategy, provides a progressive avenue for maintaining communal relevance. It provides a way for the community to feedback such that the engagement does not stop at hearing community issues, but can actually translate into concrete action in the Curation Space driven directly by the community. Implementation of a token economy enables the Curation Space to “plug in” as tokens provide a two way method of financial communication as opposed to today’s unidirectional financial dialogue i.e. consumers pay to the Curation Space, whilst the



Curation Space has limited means to reward its adherents. To illustrate with a Curation DAO sponsored token economy a Curation Space could after a strong year of performance airdrop stable coins<sup>7</sup>, vouchers or commemorative NFTs to both DAO and non-DAO members regardless of their location as a small token of appreciation for contribution throughout the year.

## Restoring History

The biggest impact of introducing a DAO and a token economy to a Curation Space is the enablement of transformative restitution. This is whereby instead of Curation Spaces waiting to be outed, for hosting controversial collections, they can instead engage their DAO on how best to deal with these contentious collections.

The advantage of utilizing a Curation DAO is that it enables the inclusion of the violated community along with the ability to amplify their Communal voice. It also provides an authentic and traceable decisioning pathway.

How this happens is through community led grant proposals to Curation DAO for projects that:

- Drive legislative reform<sup>8</sup>
- power Curation Services or the development of, within the violated communities<sup>9</sup>
- fund the restitution process
- engage in post restitution partnerships

The primary idea here is that the DAO is an active pathway to avoiding “throw money over the wall scenarios,” and instead a way to drive active awareness and engagement from the community.

However it is important to understand what this means for governance and how corporate governance and Curation DAO governance interplay.

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<sup>7</sup> This would be subject to local Curation Space financial regulations

<sup>8</sup> [On the Impact of Arts Council England's New Restitution Guidelines](#), accessed 24/06/2022

<sup>9</sup> [Among the reasons is the question of whether African countries have the capacity to transport, store and keep for ages these artefacts in case they are returned.](#), accessed 14/06/2022





## Evolving Curation Governance

Adopting a Curation DAO as part of a Curation Space brings a new dynamic to Curation governance. In short, as a Curation DAO is autonomous and self directed, it should not be beholden to the typical corporate governance of a Curation Space that it supports. However, as a recipient of direct community led funding from a Curation DAO, a Curation Space becomes directly accountable to said Curation DAO for any support that it receives. Conversely a Curation DAO has to work continuously to ensure that it retains understanding and alignment with the mission and values of the Curation Space.

How this could play out would be for a Curation DAO to issue the Curation Space, a non-tradeable governance token that confers special voting and veto rights on particular classes of proposal. Conversely the Curation Space would enable special representative access for elected Curation DAO members on its governance panels and boards.

To ward off plutocracy and perpetual representation by the same individuals from the Curation DAO, representation of the DAO within Curation Space governance would be term limited, with limits on the duration and number of times a Curation DAO member could represent.

This however is only the beginning of the intricacies of embracing a DAO as part of a Curation Space. Another aspect that needs consideration is the voting model that needs to be implemented both by the DAO and the Curation space.

### • DAO Voting Models in Curation DAOs

Of the available DAO voting models<sup>10</sup> three models below have been selected as most appropriate for the implementation within the context of this paper. They are:

- Liquid Democracy
- Quadratic voting
- Permissioned Relative Majority

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<sup>10</sup> [DAO Voting Mechanisms Explained \[2022 Guide\]](#), accessed 19/06/2022



## Liquid Democracy

Liquid Democracy has been selected as the most appropriate initial governance model for a Curation DAO adopted by a Curation Space due to the natural support for specialization provided by the voting model. Curation is often a specialist area both in artistic and scholastic terms therefore votes concerning proposals on cultural collections or obscure antiquities will often require specialist input and political support, which may be absent from the Curation DAO. The primary challenge being addressed by this voting model is that of asymmetry of information between the Curation Space and the democracy of the Curation DAO.

## Quadratic Voting

Quadratic Voting addresses the need to contain the financial power that emanates from the members of a Curation DAO. It enables small holders to have a proportionate say in DAO matters as often and in particular for a Curation DAO adopted by a Curation Space participation in governance on an individual level is likely to be sporadic. This leaves room for more motivated individuals to subvert the aspirations of both the Curation DAO and the adopting Curation Space through either spurious proposals or malicious counter voting hence there needs to be a tangible and prohibitive cost to such offensive actions.

Mathematically the modification would be to reduce the value of each successive vote purchased by the square of the total votes held and increase the price of each successive vote by the square of the total votes to be held.

I.e.

- $vote\ price = (single\ vote\ price)^q$  where  $q = \sum_{1}^n votes$
- $vote\ power = \sqrt[m]{(single\ vote\ power)}$  where  $m = \sum_{1}^n votes$





To illustrate:

If a Curation DAO member buys one additional vote the price is double the first vote and the voting power is half the first vote. If a further additional vote is sought the price is the cube of the first vote and the voting power is the cube root of the first vote.

### **Permissioned Relative Majority**

A Permissioned Relative Majority is appropriate because of its “ease of use.” This enables quick decision making on relatively straight forward proposals and clean decisions on extremely contentious ones. From a collusive perspective the power associated with this model would require a counter balance such as minimum proposal sponsorship especially where the Curative Space has a great deal of social prominence.

## **Consequences of DAO Voting Models on Corporate Governance**

The impacts of the Curation DAO Voting model on Curation Space Governance are significant. The following areas will be significantly affected

- Time to Decision
- Transparency
- Resourcing

### **Time to Decision**

Adopting a Curation DAO in a Curation Space impacts the way and the amount of time it takes for the Space to make decisions. Simply, whereas the Curation Space might have previously had quarterly sessions to decide affairs these sessions may need to be recalibrated to be more responsive to the proposals flowing in from the Curation DAO. This may often mean shorter, more frequent decisioning cycles with greater focus on strategic alignment of issues being raised by the DAO.



## Transparency

Curation Space transparency will also be significantly impacted by the chosen Curation DAO voting model as DAO Members will have a strong need to understand the internal workings and final state (with associated rationale) of any implemented proposals. In the short term this increases the burden on the Curation Space in developing transparent delivery mechanisms that preserve commercial privacy. However in the longer term this serves to reduce audit and administrative costs due to the increased internal visibility of the workings on the Curation Space.

## Resourcing

The resourcing of the Curation Space will change in prominent ways with the adoption of a Curation DAO. In short the deployment of personnel in the Curation Space will need to be reconfigured to support the incepted Curation DAO voting model either in a representative voter capacity or as a resource for the creation and vetting of emergent proposals. Simply the Curation Space cannot be a passive recipient of DAO benefits, to preserve its interests it needs to establish clear bidirectional pathways to support organizational symbiosis. There will also be a strong need to ensure continuity as both DAO and Curation Space resources join and leave. The jurisdictional boundaries between the organizations mean intelligent resource and process coordination mechanisms will need to be devised.

With all these intricacies this raises the question as to how does the Curation DAO retain its verity or “truth”.



## Retaining DAO Verity

The Verity or “truth” of a DAO is its reason for existence i.e. “why” it was created. In the case of a Curation DAO supporting a Curation Space the communicability of ethos and values whilst respecting cultural diversity is key.

The reality of a DAO is that individuals are free to enter and leave at will, as well as participate and desist at will. This creates an interesting challenge for DAOs especially in the Curation Space as the realities of a proposal may conflict with the cultural values of the most appropriate implementor from the DAO. This may result in either less appropriate skills being brought to bear on the task or alternatively complete loss of talent, skill and knowledge. Gradually this accretion results in a gradual shift away from the original spirit and intent of the DAO.

The solution to this challenge is the inception of Brand Culture within a Curation DAO with the view that Brand Culture brings diverse cultures together for a unique but consistent expression of the same Brand. Enshrined in this brand are the ideals, spirit and intent of the Curation DAO juxtaposed against the identity and values of the supported Curation Space.

For the Curation Space protection of identity and values becomes very much about expansion of identity and values to embrace community and the diversity thereof. Simply put, if the values and culture of a Curation DAO and its associated Curation Space are not readily communicable the community will gradually morph into something “other” as part of the natural cycle of growth.

To retain verity a Curation DAO has to continually remain fresh and relevant to the times and culture by altering the interpretation but not the meaning of its values. For an associated Curation Spaces exposure to this freshness and relevance is a lead-in for gradual, planned, organizational transformation at reduced risk to identity.

The biggest challenge to Curation DAOs with respect to verity will be the scale of an adopting Curation Space. Curation Space visitation can be in the realm of millions annually, which is a whole other scale for the current DAO ecosystem. Conversely for the Curation Space the challenge is with respect to the need for sustained engagement of this scale of



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community through a Curation DAO. In short, visitors local and international no longer have to stop their engagement with the institution once they are out the door. Through a Curation DAO the relationship can be meaningfully sustained.

This however leads to questions around the technical blockchain infrastructure necessary to support the Curation DAO and the Curation Space smart contracts.



## Introducing Tezos

The concept of DAOs supporting Curation Spaces is new with many un-tested variables, compounded by the pre-existing prominence associated with Curation Spaces. This makes for a difficult technical challenge. To put this into perspective the annual visitation of the Louvre is about 2.7 million for 215 days of the year open or approximately 12.5k visitors per day while the Tate Modern in London had 1.4 million visitors for 192 days open which was 7.3k visitors per day<sup>11</sup>.

The consideration of the Tezos chain is primarily due to speed of execution and at the time of writing project scarcity. This is important. The Tezos chain at 3.5 million transactions per day (tpd) can execute roughly 3X more transactions than the Ethereum chain at 1.2 million (tpd) and roughly 7X more transactions than the Bitcoin chain at 0.4 million (tpd)<sup>12</sup>. Taking the two examples above, both of which were 70%+ below pre pandemic visitor levels with an assumed 10 blockchain related Curation DAO transactions per visitor this would put the daily transactions at a level of 125k tpd for the Louvre, and 73k tpd for the Tate Modern. Hence at normal levels this would translate into 178k tpd for the Louvre and 104k tpd for the Tate Modern. Taking the average of the two and multiplying it by 10 to represent a sample of Curation DAOs supporting Curation Spaces this arrives at a transaction demand of 1.93 million tpd, which for the Ethereum and Bitcoin chains would represent a significant disruption in operations. For the Tezos chain however this would be within operational tolerances and as the upgrade mechanism can be achieved without the need for hard-forks<sup>13</sup> Community disruption due to success is a low risk.

The Tezos chain does support smart contracts as does Ethereum and Bitcoin through the Stacks protocol<sup>14</sup>, and it is competitively decentralized with respect to its initial token allocation<sup>15</sup>. Therefore from a benchmark starting point the Tezos chain is competitive and leading.

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<sup>11</sup> [Top 100 art museums in 2020 Visitor Figures](#), accessed 19/06/2022

<sup>12</sup> [How Many Transactions per Second \(TPS\) Can Tezos Perform?](#), accessed 19/06/2022

<sup>13</sup> [How does Tezos deal with forks?](#), accessed 19/06/2022

<sup>14</sup> [Unleash Bitcoin's full potential](#), accessed 19/06/2022

<sup>15</sup> [Initial Token Allocations for Public Blockchains](#), accessed 19/06/2022



This brings us to a discussion on the risks and challenges of Curation DAOs working with Curation Spaces.



## Risk & Challenges

There are numerous risks and challenges to be avoided and overcome when embracing a DAO as a support to a Curation Space, however this paper will focus on the 3 risks and 3 challenges outlined below.

### The Risks

The primary risks to Curation DAO adoption in a Curation Space are:

1. Crypto Economy
  2. Regulation
  3. DAO Governance
- **Crypto Economy**

The biggest risk to this new approach is the Crypto Economy itself. The frequent bearish and bullish cycles make stability a precious commodity. This stability is necessary for Curation Spaces to adopt the new way as these spaces are by nature risk averse and they will for a significant period be beholden to other regulated institutions. It is important to note that despite strong disincentives against using DAO issued tokens as investment vehicles on the open market, the Crypto Economy is known for working in a somewhat contrary manner as illustrated by the meme coin season of 2021<sup>16</sup>. This represents a revenue opportunity for a Curation Space, as Curation DAO Token exchange to market may in certain instances prove more lucrative than Curation DAO Token exchange to treasury and hence a tangible exposure to high risk.

Another real risk is that stable coins have been successfully attacked<sup>17</sup>. Hence despite intrinsic protections there is a tangible risk of loss to both the Curation Space and the Curation DAO.

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<sup>16</sup> [Crypto: What Are Meme Coins? And Should You Invest in Them?](#), accessed 19/06/2022

<sup>17</sup> [Did a 'concerted attack' cause Terra's UST to crash below \\$1? An exec behind the largest stablecoin and experts agree it's suspicious](#), accessed 24/06/2022





## Regulation

The next biggest risk though slower moving and susceptible to intelligent lobbying is regulation. Regulatory impacts can be in many ways unintended and unfathomable. A case in point is the recent sanctions regime against Russia<sup>18</sup>. For a Curation DAO supporting a Curation Space this may mean a significant loss of membership and an unseen requirement to KYC the entire community.

## DAO Governance

The final risk is DAO Governance. The big risk with DAO Governance is with respect to crisis response. For a Curation Space as governance is typically centralized it can change modes extremely quickly responding to issues as they emerge. However for a Curation DAO the conference of emergency powers essentially curtailing any democracy exposes the DAO to the dynamics of a silent banana republic<sup>19</sup>. This ultimately can have a devastating and in some cases terminal impact on both the Curation DAO and the supported Curation Space.

## The Challenges

The primary challenges that will be faced when adopting a DAO in a Curation Space are:

1. Curation Space Transformation
2. Blockchain Acclimatization
3. Culture Clash

## Curation Space Transformation

The biggest challenge facing a Curation Space adopting a Curation DAO as a supporting infrastructure is the need for organizational transformation. This can range from goal setting and strategy to planning and programme delivery. Unlike Web2, in Web3 the money is in the transaction and this finality changes the commercial and business dynamics of the organization. For example, where as today a Curation Space might seek to invoice a Curation DAO on 30 day terms, the delivery of services via a blockchain such as

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<sup>18</sup> [Tech tightens Russian sanctions](#), accessed 19/06/2022

<sup>19</sup> [Banana Republic](#), accessed 19/06/2022



Tezos may mean that settlement may need instead to be instant to support the efficient functioning of the DAO.

## **Blockchain Acclimatization**

The use of public blockchain as opposed to private blockchain arrives with its own set of challenges irrespective of the blockchain selected. Apart from the different transaction execution dynamics the Curation Space will need to acclimatize to a greater level of open scrutiny with respect to its transactional dealings with the Curation DAO. There will also be a need to instill new organizational security protocols with respect to information that can be used in public blockchain transactions and information that will need to be kept private out of public view. There will also need to be an understanding of the finality of publishing to the blockchain, i.e. errors cannot be taken back.

## **Culture Clash**

Curation Spaces are not unfamiliar with dealing with diverse cultures as this is a feature of these spaces, however there is a change in dynamic when the Curation Space adopts a Curation DAO as part of its identity. The Curation DAO provides a vehicle for sustained and meaningful engagement with the Curation Space community long after the initial visit and potentially many years after a single once in a lifetime visit. This can create a sustained culture clash where the resident culture of the Curation Space and the cultures of the Curation DAO are at odds with one another, and hence need to mediate to a new culture that achieves the objectives of both sides.



## Conclusion

*"Imagine a space in a museum or a stage in a festival, that's fully curated by the community of the institution. A swarm of DAOs where artists can collaborate, share profit, and build secondary markets with curators, collectors & galleries in the metaverse or in real life. A digital space where communities can make themselves heard."*<sup>20</sup>

The vision described above is a work of continuous iteration of the concepts described in this paper. Like the Burning Man festival<sup>21</sup> which started with a population of 35<sup>22</sup>, the model described above has the potential to scale natively on the Tezos blockchain leading to new hitherto never before possible forms of engagement, expression and global curative dialogue.

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<sup>20</sup> [Tokenomics For A Curation DAO \[Codeless\]](#), accessed 19/06/2022

<sup>21</sup> [Burning Man Project](#), accessed 19/06/2022

<sup>22</sup> [Burning Man Project - The Early Years](#), accessed 19/06/2022