

Decoding Participation in Blockchain-based Decentralised Autonomous Organisations (DAOs) in the Arts

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ABSTRACT

The objective of this research is to develop understanding of blockchain-based Decentralised Autonomous Organisations (DAOs) in arts, their participatory aspects and compare expectations with outcomes experienced by practitioners. A conceptual framework to understand findings from qualitative interviews with 15 practitioners is constructed to investigate three aspects of DAO participation: governance, labor and community dimensions. The findings indicate that outcomes do not fully meet expectations, but an institutional application for DAOs shows potential. The framework holds potential as a way to view organisations as consisting of individuals within communities embedded in and across wider contexts. For the field, this suggests that all organisations are contextual and technological change is entangled with cultural production, societal values, participation, organisation and economics in the arts.

Key Words

blockchain, participation, organisation, economy, democracy

Introduction

A relatively novel concern in the field of arts management, the potential benefits of blockchain have been put forth most notably by Whitaker (2019), Whitaker, Garde, Lu & Thompson (2022), Whitaker & Burnett Abrams (2023). The motivation to apply blockchain's principles to a new paradigm of organisational design is instantiated in Decentralised Autonomous Organisations (DAOs) which, it has been suggested, may re-shape institutions and allow the building of new ones (Buldas et al., 2022). DAOs have been described as digitally-native organisations consisting of purpose-driven communities, that govern shared resources through collective decision-making and blockchain token-based processes, facilitated by peer-to-peer software protocols on distributed network infrastructure (Hsieh et al., 2018; Alsindi, 2023). Around 2021, global DAO participants increased from 13 000 to 1.6 million (Quarmby, 2021). By 2022, there were over 4 000 DAOs of various purposes, sizes and functions in existence (Slavin & Werbach, 2022). But what do these recent experiments reveal? What are the challenges and opportunities therein?

This study aims to answer 4 research questions:

- 1a. What are the opportunities (benefits/strengths) and challenges (risks/weaknesses) related to arts and culture DAOs as Internet-native participatory organisations?*
- 1b. What expectations may drive organisational participation and how do they compare to outcomes experienced by practitioners?*
- 2. What kind of conceptual framework may be constructed to analyse DAO participation?*
- 3. What are the implications of the findings for the field of arts management?*

This paper will provide additional background on DAOs and their relevance in the arts, the methodology used, the relevance of participation, the framework, findings and discussion.

Defining Decentralised Autonomous Organisation (DAO)

A DAO is not a specific business model or entity, but a fluid concept applied depending on the context and application (De Filippi & Hassan, 2021) and the degree or intensity that core characteristics are interpreted (Launay, 2022). DAOs are made possible by 'smart contracts' that allow facilitation and execution of agreements between strangers, tokenisation and coding of complex tasks into blockchain systems (Buterin, 2013; Kakavand et al., 2016). DAOs may emerge from ideas about (organisational and technological) decentralisation, investment, entrepreneurship and attributes of non-hierarchical open-source software development communities (Albareda & Santana, 2022). DAOs may offer a counterbalance to the the lack of transparency, top- down concentrations of power, and narrow goals of traditional centralised structures, making possible an approach that democratises organisational management, reduces coordination costs, while also allowing the consideration of broader societal concerns (Slavin & Werbach, 2022). Who or what is being made 'autonomous' in DAOs is yet to be clarified (Ahabab et al., 2022). DAO assemblages of social and technical components shape and co-construct one another in 'composable' systems that can consist of software code, engineers, community members, algorithms, internal policies, external regulation, hardware and networking infrastructure (Nabben, 2021). Most definitions do reflect some core features or qualities: an entity comprising people acting towards a common goal or purpose; people coordinating and governing themselves online independent of central control; and the application of concepts related to blockchain such as consensus, security, anonymity, transparency and permanence (De Filippi & Hassan, 2021; Nabben, 2021; Singh & Kim, 2019). DAOs are reliant on the voluntary contributions of internal stakeholders to operate and evolve the organisation through globally coordinated work and management of resources (Hsieh et al., 2018; Catlow & Rafferty, 2022) creating unique dynamics in comparison to traditional organisations (Avital et al., 2021). DAOs are heterogeneous: their goals, scale and populations vary and can be socially, financially or technologically-focused, existing for purposes such as software development, shared investment and special interests (Nabben et al., 2021). In many DAOs, only a subset of operations are run 'on-chain' (encoded in smart contracts). Some DAOs are actually centralised similar to a typical start-up (Sullberg, 2022) as core founding teams gather around a purpose and hand control to a community over time. In a complete 'exit to community,' all activities are completely managed and enacted by the collective (Walden, 2020). Most DAO activity occurs on largely anonymous community Discord chat servers and governance tools (ex: Snapshot) that interface with users' cryptocurrency wallets to control access, perform actions, recognise contributions and receive compensation.

DAOs in the Arts

DAOs in the arts gather communities around various activities including: collecting, selling or commissioning digital artworks (Non Fungible Tokens/NFTs); commissioning research and pooling knowledge on topics of interest; collective creation of digital art; archiving artworks or other materials; and offline experiences (ex: exhibitions, parties, festivals) linked to their token-based memberships (Myers, 2022).

In arts management, it has been proposed that DAO ownership investment models may apply to non-profit arts organisations, community economic development and other areas of arts management and policy (Whitaker, 2019). Moreover, DAOs’ collective nature may offer a contrast to the loner or superstar artist (Whitaker, 2021). Their governance mechanisms may even re-animate wider conversations around democracy — as the arts act as a hub for interdisciplinary problem solving, solidarity economies and mutual aid — developing models that could apply to society more widely (Whitaker, 2021).

DAOs have been noted for their potential regarding: tokenised governance (Catlow, 2022; Rafferty, 2022; Robey, 2022); novel funding/business models (Whitaker, 2021; Catlow, 2022; Launay, 2022; Robey, 2022; Rennie et al., 2022; Ivanova et al., 2023); cooperative or fractional ownership (Catlow, 2022; Rennie et al., 2022; Robey, 2022); flexible, non-hierarchical organisational design (Avital et al., 2021; Albareda & Santana, 2022; Slavin & Werbach, 2022; Llyr et al., 2023); collective coordination/collaboration (Myers, 2015; Whitaker, 2021; Catlow, 2022; Rafferty, 2022; Ivanova et al., 2023; Lotti et al., 2023); automation, speed, adaptability (Catlow, 2022; Lotti et al., 2023; Rafferty, 2022; Robey, 2022; Ivanova et al., 2023); identity building/belonging, networking, resource pooling (Catlow, 2022; Rafferty, 2022; Ivanova et al., 2023; Zeilinger, 2023).

Methodology

The research process is visualised in Figure 1. A broad literature review informed the understanding and relevance of participation in expectations around DAOs and their imaginaries. It also informed the construction of a conceptual framework integrating aspects of DAOs, cooperatives, management and participation. Qualitative methods were chosen to capture the daily events or knowledge of those being investigated and their context (Flick et al., 2004) as well as their experiences, perceptions and behaviors to investigate the how’s and why’s in search of unquantifiable themes and patterns (Tenny et al., 2022).

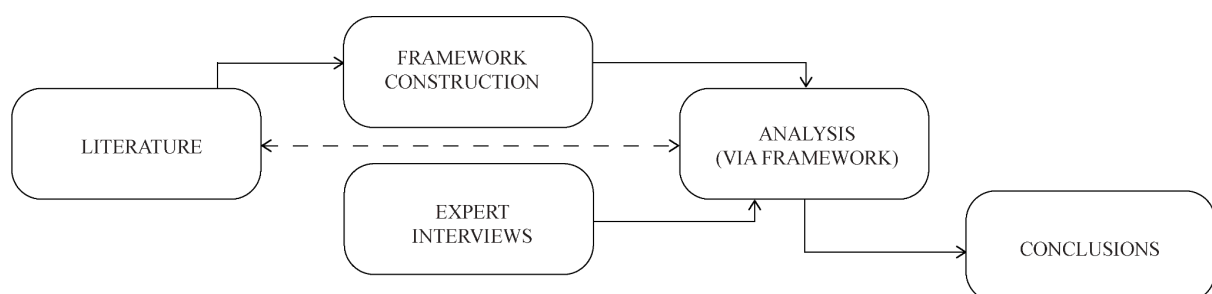


Figure 1: Research Process

The first interviewees were selected purposively from the researcher’s contacts with additional recruitment via network sampling or cold contact via online platforms. Most interviewees were

members of arts and culture DAOs that received venture capital funding in a wave of NFT hype around 2020. A few were from EU-based publicly-funded institutions, while others filled additional knowledge gaps. Interviewees included DAO experts, founders, core members and peripheral contributors primarily based in EU, North America and South America with expertise in: membership, onboarding, DAO grants programs, generative art, NFT art (creation and sale), law, strategy, product development, community management, curation, communications/marketing and organisational design/psychology.

Semi-structured ethnographic-style interviews allowed open-ended probing to highlight issues and concepts that may best represent respondents’ own experiences (Gioia & Thomas, 1996). Attention was given to eliciting thick descriptions with definitions of terms, situations, events, assumptions, implicit meanings and tacit rules (Charmaz, 2006). Focus was maintained on a general research question about the opportunities and challenges facing DAOs.

The data analysis was based on Gioia & Thomas’ (1996) categorical analysis method (see example in Figure 2).

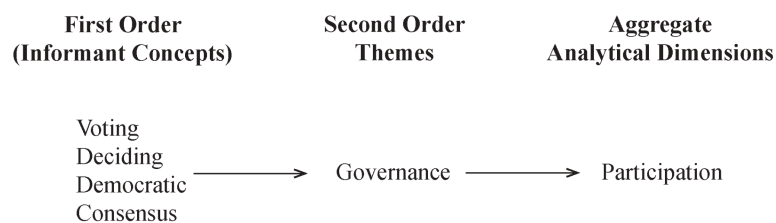


Figure 2: Data Analysis Example

The conceptual framework was then operationalised with the data collected in the interviews to structure the findings. The research questions structure the ensuing discussion.

Why Participation?

Member participation in decisions, processes and activities differentiates DAOs from traditional organisations and is key to their success (Wright, 2021; Llyr, Slavin & Werbach, 2023; Bertram, 2024). In the field of planning, participation has been defined as “engagement, co-creation, collaboration, consultation or deliberation” (Hofer & Kaufmann, 2022: 2). It is assumed that participation is animated by some expectations regarding outcomes. The concept of ‘imaginary’ has been used to study processes of social and cultural transformation and it may be used to refer to collective visions of the future, past or present (Husain et al., 2020). Those motivated to participate in this new phenomenon of DAOs must be driven by some imaginaries concerning their potential, framing expectations. The researcher contends that DAOs in arts and culture may demonstrate a convergence of three participatory imaginaries that shape practitioner expectations.

Technological. Sociotechnical imaginaries may animate the relationship between technology and society (Jasanoff & Kim, 2009). Decentralised and distributed network infrastructure has been associated with material resilience and liberatory political concepts (Brekke et al, 2021). Blockchain has been proposed as a basis for a global digital commons (Rozas et al., 2021) with potential to

transform democratic participation (Whitaker, 2021; Cardoso, 2023) and its hacker roots proposed that technological decentralisation could more fairly distribute influence over the systems that govern society (Nabben, 2021). Digitalisation and democracy may even be actively designed in relation to each other (August, 2021). DAOs' elimination of centralised intermediaries and hierarchy may align with horizontalist thinking around self-management, collective self-governance, autonomy and direct democracy (Husain, 2020). Figure 3 visualises network types, often implying their latent potential.

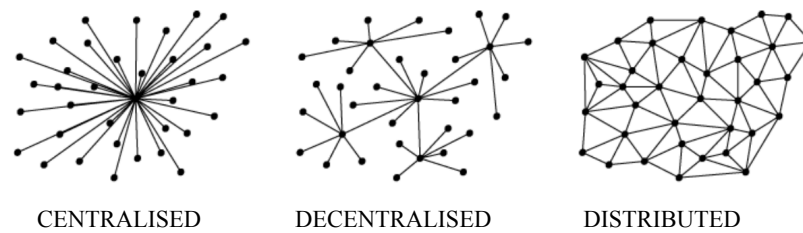


Figure 3: Network Typologies

Entrepreneurial. DAOs may be seen to reflect an entrepreneurial dimension of participation. DAOs' emphasis on shared ownership and governance reflect aspects of cooperative business models (Nabben, 2021; Catlow & Rafferty, 2022; Robey, 2022) such as member control and fairer distribution of returns in alignment with cooperative principles like autonomy, community and participation (Nabben, 2021). Artist cooperatives have been seen as systems of 'self-help' (Jeffri, 1980) resulting in mutually beneficial networks of ideas, talents, skills and energies (Byrne et al., 2006). DAO members' self-selection into roles and participation may also reflect entrepreneurial dimensions of online freelancing, reputation building and professionalisation. Due to the highly financial nature of blockchain, speculative profit (ex: cryptocurrency, scarcity, NFT resale) may also relate to this dimension as equity ownership alone can be considered a form of participation.

Institutional. DAOs in arts may also reflect a vision of open, participatory institutions. The relevance of public participation in arts institutions has been proposed by Simon (2010), Simon (2016), Jung & Vakharia (2019) Jung (2022) and Liddell (2023). Such participation may refer to attendance, community engagement, outreach and audience empowerment (Bishop, 2012; Simon, 2010; Liddell, 2023). This involvement is seen as key to 'cultural democracy' (Simon, 2010; Nikonanou & Misirloglou, 2023), as participation may play a role in the relationship between democracy and museums (Zwart, 2023). Structuring museums as open non-hierarchical community ecosystems driven by collective leadership, empowerment and continuous learning has been proposed to benefit their management (Jung, 2021) with 'bottom-up' approaches that consider community needs and interests to increase relevance and financial sustainability or facilitate creative problem solving (Jung & Vakharia, 2019). Like DAOs, such open system learning organisations may experiment with formalisation and centralisation (Jung, 2021).

Figure 4 illustrates various aspects of these three imaginaries that may drive expectations of participation in DAOs in arts and culture.

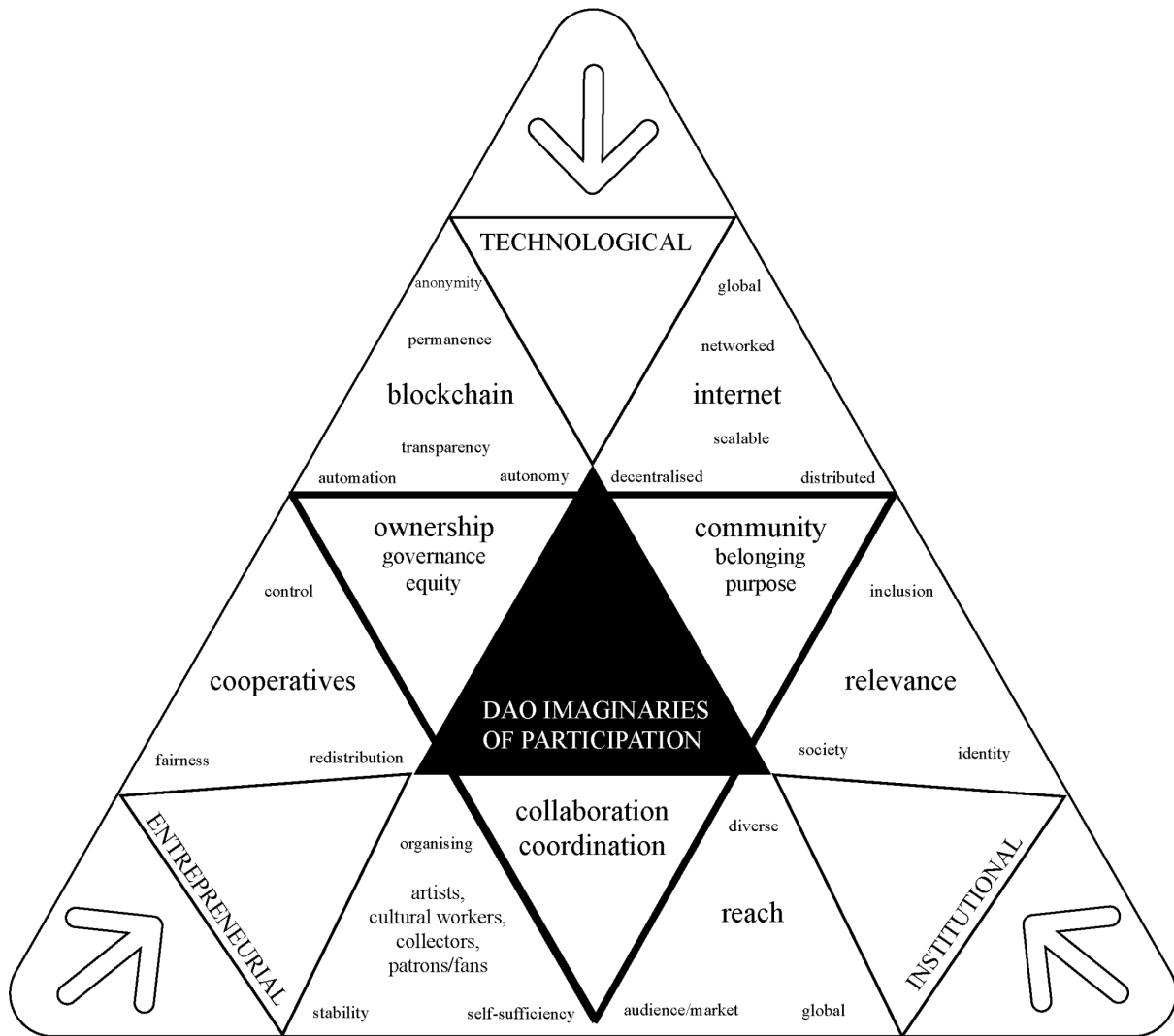


Figure 4: DAO Imaginaries of Participation

Constructing A Framework for Understanding Community Participation

A conceptual framework was constructed based on the literature review and the subsequent focus on participation. It combines two existing frameworks concerning participation and cooperatives, with modifications or additions to better reflect DAOs.

Hofer & Kaufmann’s 3A3 Framework of Participation aims to understand participation as it emerges, highlighting interactions and interdependencies between its elements as fluid and emergent phenomenon (Hofer & Kaufmann, 2022). The continuously evolving and interlinked dimensions represent the questions: ‘Who?’ (Actors); ‘How?’ (Arenas); ‘Why?’ (Aims) (Hofer & Kaufmann, 2022). The participation planning process bridges participation itself to wider contexts.

Mazzarol et al.’s Conceptual Framework for Research into Cooperative Enterprise features the level of member-owners, social activity, the business entity and wider systemic context to understand individual, community or organisational behavior as actors co-evolve with broader system dynamics through complex, persistent problems that span multiple domains, on varying levels (Mazzarol et al.,

2011). Attachment, belonging and identification with shared resources, history, assets, symbols and experiences may influence individual participation (Mazzarol et al., 2011).

The framework (see Figure 5, next section) acknowledges that participatory activities rely on deliberate design, while planning and outcomes are constrained by contextual factors by situating the individual within the community in relationship to the organisation itself. The individual and community in which they participate are located inside, but transcend, the boundaries of the organisation into wider systems, representing the interrelationships between these many dimensions, levels and actors.

Findings & Discussion

1a. What are the opportunities (benefits/strengths) and challenges (risks/weaknesses) related to participation in arts and culture DAOs?

See Appendix 1.

1b. What expectations may drive organisational participation and how do they compare to outcomes experienced by practitioners?

Technological. The technologies of blockchain and DAOs appear to offer the functionality that they promise through smart contracts, tokenisation, contribution tracking and compensation and collective decision-making tools. However, user experience issues, legal ambiguity, limited adoption of cryptocurrency and the messiness of governance diminish impact. Anonymity, security and fraud concerns erode trust that is essential to creative communities. The design flaws of DAO tokenised systems (see below) attenuate the democratic potential of blockchain, as does lack of engagement in decision-making or online social platforms because interest evolves with wider trends (ex: pandemic Internet use, cryptocurrency hype). While scale is a purported technological benefit of DAOs, beyond investment it may affect engagement, trust and intimacy.

Entrepreneurial. The cooperative ownership potential falls short of expectations. While traditional cooperatives are known for their ‘one member-one vote’ system, blockchain makes this difficult (more tokens-more votes); despite workarounds manipulation remains possible, while views on shareholder power normalise it. DAOs do not consciously reflect values or principles of cooperatives, such as federation, concern for the wider community or wage solidarity. Furthermore, the entrepreneurial aspect of DAO contribution — although demonstrating benefits such as flexible working structures, adaptivity, reputation building, compensation and talent discovery — faces many setbacks. These include difficulties of an open organisation regularly onboarding and losing members (and associated resources). This is also modulated by speculation and hype cycles of the wider crypto context. Although flexible, adaptable globally distributed work presents potential, non-hierarchical and decentralised structures lead to difficulties with responsibility, delegation and accountability.

Institutional. The outcome of the institutional dimension shows some potential. Institutional DAOs may still be subject to the same challenges regarding regulation, financialisation and governance but there may be less pressure to develop grand business models. This may include co-production of specific content or exhibitions (Simon, 2010), public engagement on a deeper level and co-creative

activities or as a feedback system for institutional learning (Jung & Vakharia, 2019; Jung, 2022). DAOs may play a role in digital membership, fundraising, outreach and participatory activities like co-curation. They may be designed around a specific purpose, period of time or special interest (ex: NFT art). This may not only make institutions more relevant to their publics but ideally, cultivate novel ecosystems that connect institutions with artists, patrons or cultural producers to pool and exchange resources in more horizontal community-based relationships that redistribute power (Jung, 2022; Ivanova et al., 2023). However, given the hierarchies, roles, budgets and organisational architecture that characterise institutions, it is unlikely that a wide variety of involvement can or will be invited soon. Doing so involves questions of authority, access and trust (Liddell, 2023). Legal, tax and data compliance considerations are essential, as well as communications, reputation management (ex: conflict resolution) and risk mitigation (ex: liability). Costs and resources may be required for coding, law/accountancy or community management. However, this may not be grounds to exclude experimentation. Institutions can play a role in more stable experimentation than DAOs that must build products/business models like a tech start-up. Institutional adoption could even influence regulation within their jurisdictions. However, institutional DAOs may forego many aspects of participation (ex: open budgeting), shared ownership or rapid transformation, begging the question whether they ultimately qualify as DAOs.

2. What kind of framework may be constructed to analyse DAO participation?

The framework shows promise as a tool to structure analysis of DAOs, reflecting aspects of participation, community, membership, ownership and context. As all models are simplifications, the framework is not comprehensive, but is useful for capturing and organising some aspects. Elements appear to overlap but this may provide multiple ways of looking at the same activity, incident, phenomena or situation in multiple ways. The framework may underplay technological aspects in favor of the social. It may be applied to participatory organisations and complement existing models such as SWOT Analysis.

3. What are the implications for the field of arts management?

This research holds a number of implications for the field of arts management. The instantiation of blockchain-based DAOs in the arts reveals emergent themes relevant in contemporary arts production such as new technologies, public participation, ownership, patronage and community engagement that bridges geography, special interest or the physical/digital. It highlights new economies, new forms of global collaboration and novel incentivisation or value compensation systems for contribution. Yet many of the social and financial challenges are familiar: sustainable business models, sustaining engagement and efficient collaboration. While DAOs in their original formulation questioned the need for management (Buterin, 2013), highly social DAOs may require some centralisation or distributed leadership to maintain focus on purpose and strategy until complete decentralisation. While it remains an ideal, still very few DAOs have achieved a full 'exit to community' and the intention to do so is not universal (ex: focusing instead on collective investment instead of control). Management considerations may include project/program management, governance, delegation, accountability, transparency, community management, IT, law/tax, compliance and strategy amidst evolving internal and external factors. Some may not be essential considerations until the DAO reaches a certain scale or level of seriousness (particularly if it is independent from a larger business/institution). Despite challenges, DAOs may become a more serious consideration in regards to digital outputs such as NFT

artworks. As institutions like MoMa, Pompidou and Whitney purchase (thus legitimising) NFTs, DAOs may be used to engage a community around digital art. DAOs may also reflect a growing trend in online creative communities that move towards intimate communities of ‘superfans’ (SXSW, 2024) who choose to support, engage with and build relationships around an artist, a group, a style or scene. Rather than social media’s emphasis on scale (ex: Instagram followers), this trends towards smaller communities with deeper connections and personal investment. This may also be seen as a variation of online ‘brand communities’ which facilitate connections and engagement amongst community members (Katz & Heere, 2013) to strengthen the brand.

The conceptual framework puts forth new ways of analysing and (ideally) planning participation in arts organisations but requires further testing. Although DAOs in arts & culture offer a great number of opportunities, benefits and strengths, they also face many critical challenges. From a wider perspective, this study may be considered an investigation into arts production’s contextual entanglement with technology. Technology increasingly pervades various internal and external processes of arts production such as creation, reproduction, distribution, marketing, community-building and now, organisation. These processes are not isolated within organisations, but are interrelated with individuals inside communities, shaped by contextual factors. With DAOs, this wider context includes technology, start-ups and their various norms or features (flatter structures, VC investment, hype, algorithms, data collection), laws or trends that impact their ecosystems. As visualised by the conceptual framework, challenges such as regulation, societal tendencies (ex: speculation, selfishness) and technological design (ex: bias) constrain outcomes. Considering the experience of DAOs as social spaces, this conception adds detail to diagrams of decentralised network typology seen earlier by illustrating individuals participating in networked organisations (see Figure 5).

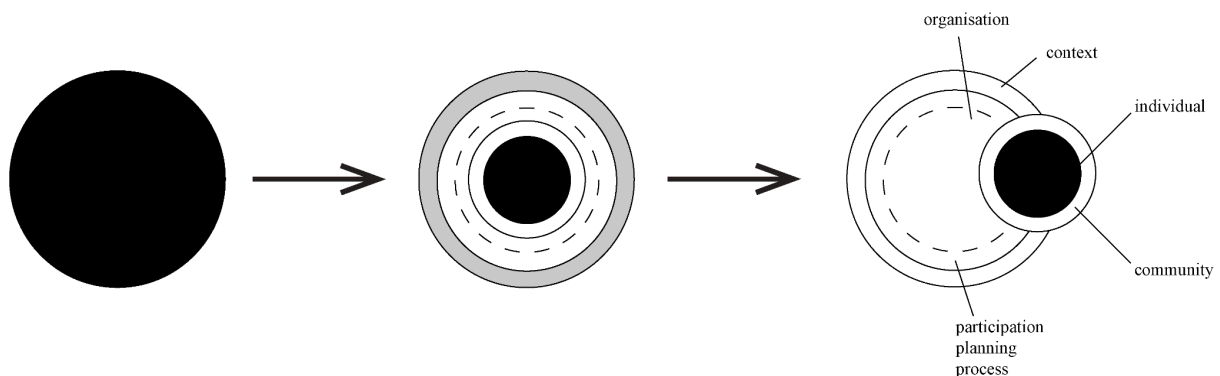


Figure 5: Evolution to Participatory Network Typology

Conclusion

The arts DAO phenomenon highlights entanglements between various forces. This is not least apparent in this exemplary collision of arts production, technology, finance and start-up culture. In a departure from the purely financial, the arts bring the creative, the communal and the social into the circuit — differentiating outcomes from the purely financial. Despite the potential of new technologies to shift paradigms, pervasive values of wider society influence their use. Beyond experimentation, wider contextual factors must align to create conditions for success. That potential

may never reach fruition, but this could be a stepping stone that opens up important conversations concerning structure, power, economics and community in cultural production.

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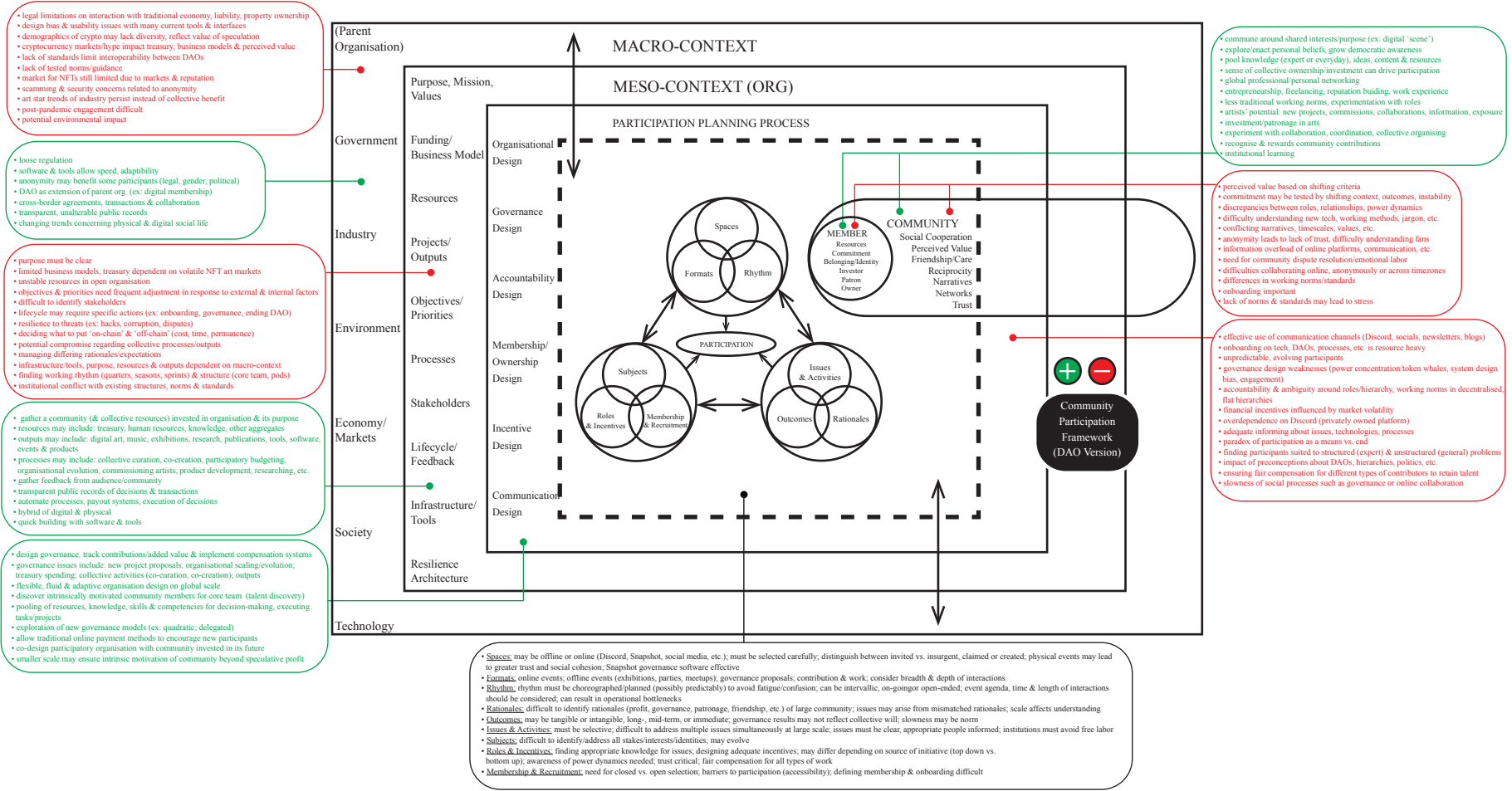
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Appendix 1



- legal limitations on interaction with traditional economy, liability, property ownership
- design bias & usability issues with many current tools & interfaces
- demographics of crypto may lack diversity, reflect value of speculation
- cryptocurrency markets/hype impact treasury, business models & perceived value
- lack of standards limit interoperability between DAOs
- lack of tested norms/guidance
- market for NFTs still limited due to markets & reputation
- scamming & security concerns related to anonymity
- art star trends of industry persist instead of collective benefit
- post-pandemic engagement difficult
- potential environmental impact

- loose regulation
- software & tools allow speed, adaptability
- anonymity may benefit some participants (legal, gender, political)
- DAO as extension of parent org (ex: digital membership)
- cross-border agreements, transactions & collaboration
- transparent, unalterable public records
- changing trends concerning physical & digital social life

- purpose must be clear
- limited business models, treasury dependent on volatile NFT art markets
- unstable resources in open organisation
- objectives & priorities need frequent adjustment in response to external & internal factors
- difficult to identify stakeholders
- lifecycle may require specific actions (ex: onboarding, governance, ending DAO)
- resilience to threats (ex: hacks, corruption, disputes)
- deciding what to put 'on-chain' & 'off-chain' (cost, time, permanence)
- potential compromise regarding collective processes/outputs
- managing differing rationales/expectations
- infrastructure/tools, purpose, resources & outputs dependent on macro-context
- finding working rhythm (quarters, seasons, sprints) & structure (core team, pods)
- institutional conflict with existing structures, norms & standards

- gather a community (& collective resources) invested in organisation & its purpose
- resources may include: treasury, human resources, knowledge, other aggregates
- outputs may include: digital art, music, exhibitions, research, publications, tools, software, events & products
- processes may include: collective curation, co-creation, participatory budgeting, organisational evolution, commissioning artists, product development, researching, etc.
- gather feedback from audience/community
- transparent public records of decisions & transactions
- automate processes, payout systems, execution of decisions
- hybrid of digital & physical
- quick building with software & tools

- design governance, track contributions/added value & implement compensation systems
- governance issues include: new project proposals, organisational scaling/evolution, treasury spending, collective activities (co-curation, co-creation), outputs
- flexible, fluid & adaptive organisation design on global scale
- discover intrinsically motivated community members for core team (talent discovery)
- pooling of resources, knowledge, skills & competencies for decision-making, executing tasks/projects
- exploration of new governance models (ex: quadratic, delegated)
- allow traditional online payment methods to encourage new participants
- co-design participatory organisation with community invested in its future
- smaller scale may ensure intrinsic motivation of community beyond speculative profit

- commune around shared interests/purpose (ex: digital 'scene')
- explore/enact personal beliefs, grow democratic awareness
- pool knowledge (expert or everyday), ideas, content & resources
- sense of collective ownership/investment can drive participation
- global professional/personal networking
- entrepreneurship, freelancing, reputation building, work experience
- less traditional working norms, experimentation with roles
- artists' potential: new projects, commissions, collaborations, information, exposure
- investment/patronage in arts
- experiment with collaboration, coordination, collective organising
- recognise & rewards community contributions
- institutional learning

- perceived value based on shifting criteria
- commitment may be tested by shifting context, outcomes, instability
- discrepancies between roles, relationships, power dynamics
- difficulty understanding new tech, working methods, jargon, etc.
- conflicting narratives, timescales, values, etc.
- anonymity leads to lack of trust, difficulty understanding fans
- information overload of online platforms, communication, etc.
- need for community dispute resolution/emotional labor
- difficulties collaborating online, anonymously or across timezones
- differences in working norms/standards
- onboarding important
- lack of norms & standards may lead to stress

- effective use of communication channels (Discord, socials, newsletters, blogs)
- onboarding on tech, DAOs, processes, etc. is resource heavy
- unpredictable, evolving participants
- governance design weaknesses (power concentration/token whales, system design bias, engagement)
- accountability & ambiguity around roles/hierarchy, working norms in decentralised, flat hierarchies
- financial incentives influenced by market volatility
- overdependence on Discord (privately owned platform)
- adequate informing about issues, technologies, processes
- paradox of participation as a means vs. end
- finding participants suited to structured (expert) & unstructured (general) problems
- impact of preconceptions about DAOs, hierarchies, politics, etc.
- ensuring fair compensation for different types of contributors to retain talent
- slowness of social processes such as governance or online collaboration

- **Spaces:** may be offline or online (Discord, Snapshot, social media, etc.); must be selected carefully, distinguish between invited vs. insurgent, claimed or created; physical events may lead to greater trust and social cohesion; Snapshot governance software effective
- **Formats:** online events; offline events (exhibitions, parties, meetups); governance proposals; contribution & work; consider breadth & depth of interactions
- **Rhythm:** rhythm must be choreographed/planned (possibly predictably) to avoid fatigue/confusion; can be interlatic, on-going or open-ended; event agenda, time & length of interactions should be considered; can result in operational bottlenecks
- **Rationales:** difficult to identify rationales (profit, governance, patronage, friendship, etc.) of large community; issues may arise from mismatched rationales; scale affects understanding
- **Outcomes:** may be tangible or intangible, long-, mid-term, or immediate; governance results may not reflect collective will; slowness may be norm
- **Issues & Activities:** must be selective; difficult to address multiple issues simultaneously at large scale; issues must be clear, appropriate people informed; institutions must avoid free labor
- **Subjects:** difficult to identify/address all stakes/interests/identities; may evolve
- **Roles & Incentives:** finding appropriate knowledge for issues; designing adequate incentives; may differ depending on source of initiative (top down vs. bottom up); awareness of power dynamics needed; trust critical, fair compensation for all types of work
- **Membership & Recruitment:** need for closed vs. open selection; barriers to participation (accessibility); defining membership & onboarding difficult