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# STRUCTURES OF BELONGING





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## Beyond the Desire for Ownership

The domain of digital culture was once characterised by abundance. Digital artefacts – including information and artworks – were thought of as easily reproducible, shareable and non-rivalrous. Thanks to these characteristics, such artefacts resisted commodification. For many (including myself), the digital appeared as an exciting laboratory for reimagining the commons within a broader context of capitalist enclosures. This shifted dramatically when blockchain technology began to emerge roughly a decade ago, promising a perfect simulation of scarcity in digital contexts. All digital artefacts would now become trackable and could be reimagined as valuable commodities. This promise has become a reality with the popularisation of non-fungible tokens (NFTs) as containers for intangible art objects. Digital scarcity is no longer just a simulation<sup>1</sup> and all digital images can become “monetised graphics”.<sup>2</sup>

Verifiable ownership of uniquely identifiable digital artefacts is now achievable. But is it desirable? From the endless spam on social media to digital artworks displayed on ill-proportioned screens and in crypto wallets, there is still very little that makes me want to own most NFTs. And in any case, when all that is needed in order to “have” a digital artwork is to right-

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1 See De Filippi, P. (2019). 50 Bitcoin. In D. Haunter & C. Op den Kamp (Eds.), *A History of Intellectual Property in 50 Objects* (pp. 409–428). Cambridge University Press; but also O’Dwyer, R. (2020). Limited edition: Producing artificial scarcity for digital art on the blockchain and its implications for the cultural industries. *Convergence* 26(4), 874–894.

2 Zeilinger, M. (2018). Digital Art as “Monetised Graphics”: Enforcing Intellectual Property on the Blockchain. *Philosophy & Technology*, 20(3), 1–27.

click-save the corresponding file,<sup>3</sup> the idea of ownership has been reduced to little more than an exclusive privilege to sell. Ownership as the exclusive right to dispose of property: this is certainly not what art inspires me to desire.

This does not mean, however, that blockchain-enabled digital art can only be fulfilling or rewarding if you have “skin in the game.” The concept of ownership is not the only factor to consider here, nor, perhaps, the most important one. That’s because beyond a *desire for ownership*, blockchain can also encode a desire for belonging. Often, this desire may closely track the logic of private ownership and the enclosure movements it has spawned (such as international intellectual property regimes). But it also has the potential to radically depart from this logic. A desire for ownership, to begin with, will generally make you want to have something that others can’t have – perhaps something like a truly unique digital image. That’s precisely how many NFT art projects operate, by employing sales mechanisms designed to inspire a desire for privately owned digital assets. This is reinforced by the rhetoric hype surrounding such projects, which is meant to make you want to belong to an exclusive club of those who bought (or sold) the right thing at the right time. But elsewhere, a desire for belonging can instead also make you want to join a community where information, opportunities and resources are freely distributed. This is the case for many decentralised autonomous organisations (DAOs) that mix on- and off-chain technologies to develop infrastructures of collaboration, co-ownership and sharing.

On the surface, profit-oriented NFT projects and commons-oriented DAOs may seem to sit at diametrically opposed ends of a spectrum that reaches from hyper-financialisation to mutual aid. At the one end of the spectrum, NFT projects mobilise the desire for belonging in order to develop strict zones of exclusivity. At the other end, DAOs build on the same desire in order to reimagine the digital commons. Crucially, an NFT project dedicated to the asset logic of financial speculation may therefore draw on the same blockchain affordances that also characterise a DAO dedicated to resource-sharing. Both form what

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<sup>3</sup> See *Right-Click, Save As.* (n.d.). Know Your Meme. Retrieved December 28, 2022, from <https://knowyourmeme.com/memes/right-click-save-as>

I call *structures of belonging*. Such structures may espouse radically different ideologies, tactics and aims, but they will always share important similarities. My key aim here is to explore the characteristics of such structures of belonging with a view to how they may augment our understanding of blockchains as something other than property-oriented enclosure systems.

What might we gain from closer analysis of the similarities and differences – in organisational, aesthetic, ideological or social terms – between various blockchain-enabled structures of belonging? Doing so may allow us to begin developing a conceptual framework that better accounts for (dis)continuities between hyper-capitalist blockchain projects and their radical alternatives. The ecosystem of blockchain-enabled structures of belonging is already fantastically diverse; its potential for further variations is both terrifying and exhilarating. Understanding this diversity will make it easier to imagine how we can instrumentalise decentralised ledger technology (DLT) beyond its fintech legacy.

## **Belonging**

Many blockchain-enabled art initiatives – from commercial NFT art marketplaces to artist-run DAOs – have recognised that the traditional value proposition of private property (“I have something that you can’t have”) may not be particularly desirable when applied to digital objects. As a result, such initiatives no longer locate value predominantly in the notion of private property and the right to exclude others from access to it; instead, there is also value in the ability to access ideas, content or resources through or alongside others. Perhaps as a kind of intensification of what Jodi Dean has called communicative capitalism,<sup>4</sup> conceptual hard forks and realignments between “ownership” and “belonging” can be observed even within the domain of decentralised finance (DeFi). To unpack this difference is more than just semantic nit-picking. As I want to argue here, tracing the difference between ownership and belonging represents an opportunity to fundamentally rethink

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4 Dean, J. (2014). Communicative capitalism and class struggle. *Spheres: Journal for Digital Cultures*, 1, 1–16.

how we want to use emerging technologies in support of diverse perspectives on property and the commons in digital contexts.

To this end, it is useful to elaborate on the etymology of “belonging”. Its Old English root of the verb does not just denote ownership, but literally means “to go along with” or “to pertain to”. As a verb, the term therefore indicates a relationship, a certain type of connection between two or more agents. Put differently: though belonging certainly denotes ownership (“being the property of”), it also invokes membership (“being a member of”).<sup>5</sup> When we unpack this duality of meaning in the landscape of blockchain-enabled cultural initiatives, we will find that it can apply to diverse practices (and ideologies) in the design of art projects, computational infrastructure and user interaction.

Let me go back to NFTs and DAOs, the two types of examples invoked earlier. Many NFT projects use gate-keeping mechanisms to establish zones of exclusivity that can be real (e.g. in the form of token-gated members-only access) or imagined (by way of hype and promotional activities). In DAOs, similar mechanisms can help to frame ideals of shared ownership, or even to ban private ownership privileges entirely. Again, these examples may appear as different as can be, but they also share two important characteristics. The first is that the technological affordances of blockchain make it relatively easy for structures of belonging to be *computationally enforced* (through the use of smart contracts, for example, or through tokenisation); the second is that such structures are always *socially enacted*, because they rely heavily on user participation (e.g. DAO voting protocols and algorithmic governance solutions) and on the use of communication technologies such as dedicated Discord servers.

These core characteristics – the computational enforcement and social enactment of blockchain-enabled structures of belonging – add a crucial facet to our understanding of the complex connections between ownership and belonging. With regard to ownership and how it traditionally pertains

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5 Belong. (n.d.). In *Wiktionary*. Retrieved December 26, 2022, from <https://en.wiktionary.org/wiki/belong>



to property, things are usually straightforward – we buy something and consequently it belongs to us. But things get more complicated when it comes to belonging. Like ownership, belonging is often initiated and maintained through financial exchanges, such as when you buy or renew a membership to a gym. In its connotation as membership, however, belonging additionally enacts an important conceptual reversal: *when you become a member of something, it doesn't belong to you – you belong to it.*

Depending on context, this observation lends itself to various interpretations. In profit-oriented circumstances, it's clear that a sense of belonging is valuable for stimulating user engagement and customer loyalty. Many NFT projects want to inspire precisely that: the desire to belong to an exclusive club of those with access, those with knowledge, those with the ability to capitalise. For example, the entire meme-driven NFT art market rhetoric around “early adoption” and “to-the-moon” profit forecasting is specifically designed to boost FOMO and participation.<sup>6</sup> But elsewhere, “taking ownership” of a project such as a DAO designed for resource-sharing or cooperative purposes can instead empower community members to uphold anti-capitalist ideals.<sup>7</sup>

## **Allowlists and Token-Gating: Zones of Exclusivity and Their Engagement Mechanisms**

There is a wide range of mechanisms by which zones of exclusivity are established on blockchains, and all of them deserve more critical attention than I can afford them here. By way of example, let me elaborate on two such mechanisms: the allowlist, which emphasises the social enactment of structures of belonging, and the practice of token-gating, which foregrounds their computational enforcement.

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6 Gloerich, I. (2022). Speculate – or Else! Blockchain Memes on Survival in Radical Uncertainty. In C. Arkenbout & L. Scherz (Eds.), *Critical Meme Reader II: Memetic Tacticality* (pp. 237–257). Institute of Network Cultures.

7 There will be additional dimensions to consider here: what new (or not so new) kinds of labour become concretised in the eagerness to participate, contribute and co-generate value? How and to what ends is such value extracted by project initiators and platform operators?

In the NFT space, the term allowlist (or whitelist) generally refers to a list of crypto wallet addresses that have priority permission to mint tokens associated with a new project. As such, the concept reinforces the idea that privileged access is both desirable and valuable. The internet is awash with announcements for projects that follow this approach. You'll also find countless articles describing the social labour required in order to get "allowlisted". This process tends to involve several steps, including participation in a project's social media activities and engagement with the project's community on closed-access discussion platforms. In effect, the first step requires allowlist hopefuls to participate in marketing efforts, usually with a need to follow very specific instructions; the second step requires users to join conversations that help establish a market and co-create demand, hype and traction. To be included on an allowlist, you might, for example, have to follow specific social media accounts, boost their activity through reposting, recruit others to sign up, create original posts pointing to a project, and provide tailored feedback in discussion forums. As noted in one how-to article, this "can be a lot of work" and requires "hours of online engagement".<sup>8</sup> Ultimately, this exertion of affective labour is incentivised by the promise that participants can later profit from a project's financial value, which they will have co-created even before its release. This mechanism resembles what Lana Swartz, writing about the 2017 ICO bubble, describes as networked efforts in which participants collaborate to bring about a shared future.<sup>9</sup> Allowlists, in other words, can help to memetically spread the hype around a new NFT project, and with it the desire to be part of a new structure of belonging, the value of which is co-constituted directly through active participation.

Token-gating is a similarly widespread engagement mechanism. Here, access to zones of exclusivity is not tied to affective labour; instead, membership is in principle open to everyone who holds dedicated tokens. Ownership of these

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8 *NFT Whitelist: The Key to Exclusivity & How to Get On One*. (n.d.). Bybit Learn. Retrieved December 26, 2022, from <https://learn.bybit.com/nft/what-is-nft-whitelist/>

9 Swartz, L. (2022). Theorizing the 2017 Blockchain ICO Bubble as a Network Scam. *New Media & Society*, 24(7), 1695–1713.

tokens can translate into (tiered) access to everything from information and assets to discounts and participation in decision-making processes. Access tokens tend to be fungible, but even when they are traded on exchanges, they remain tied to specific projects. This means that as long as such tokens remain in circulation, they will always control access to the specific project they were minted for, and also financially support that project. Importantly, token ownership is easy to monitor algorithmically, and the regulation of membership privileges is easy to automate. Token-gating is therefore an ideal method for computationally enforcing structures of belonging.

A good example of how this mechanism is used is the online community Friends with Benefits (FWB), which is dedicated to “collaboratively shaping web3’s future” by promoting, co-developing and trading content, digital art and online platform infrastructure tools.<sup>10</sup> As its name suggests, Friends with Benefits is a community designed to create nested zones of exclusivity that afford members privileged access to peers, information, communication and decision-making powers. Access permission is tokenised using the platform-specific \$FWB cryptocurrency. Buying or otherwise earning \$FWB gives community members clout. It enables them to steer conversations and shape opinions, participate in votes, and profit from their membership benefits in any other way they can.<sup>11</sup> The holding of access tokens also serves a promotional purpose and functions as a value-generating display of allegiance to the community. Overall, the mechanism resembles what Felix Fritsch has described as the functioning of “memetic derivatives” and their affective capacity to shape economic value.<sup>12</sup>

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10 *Friends With Benefits*. (n.d.). Retrieved December 26, 2022, from <https://www.fwb.help/>

11 Zeilinger, M. (2023). Smart Contracts and the Becoming-Curatorial of Digital Works of Art [Manuscript submitted for publication]. In Krysa, J. and M. Tyžlik-Carver (Eds.), *DATABrowser Vol. 10: Curating Superintelligence*. Open Humanities Press.

12 Fritsch, F. (2020). *The Commons Stack: Realigning Incentives Towards Public Goods (Case Study)*. ResearchGate. Retrieved December 26, 2022, from [https://www.researchgate.net/publication/347390484\\_The\\_Commons\\_Stack\\_Realigning\\_Incentives\\_Towards\\_Public\\_Goods\\_Case\\_Study](https://www.researchgate.net/publication/347390484_The_Commons_Stack_Realigning_Incentives_Towards_Public_Goods_Case_Study)

There are many other mechanisms useful for establishing and regulating blockchain-enabled structures of belonging. These include compulsory application and vetting processes, gamification of collection or reward protocols, invitation-only communication platforms, and stakeholding as an access prerequisite. All of these share the core characteristics outlined above of being computationally enforceable and socially enacted. In most use cases, these mechanisms serve to financialise our desires for access and belonging. In doing so, they cultivate affect as something that can amplify more conventional desires for ownership, but which could also replace it. Whether this turns out to be a good thing will depend on our ability to commandeer these mechanics and redeploy them tactically, counteracting the tendencies of hyper-capitalist financialisation currently still prevalent in the broader landscape of blockchain development.

### **How Should a Structure of Belonging Be?**

Cryptocurrencies and DeFi may have been the genesis applications of decentralised ledger technology (DLT), but they are not its apex. If financialisation was the first major DLT vantage point, then in order to develop digital commons, we must now push this perspective beyond its fintech legacy. As I have begun to argue here, this involves reimagining blockchains not as property-oriented enclosure systems, but instead as structures of belonging.

The most promising context for doing so is the vibrant domain of DAOs. I think of DAOs as (more or less) blockchain-reliant organisations with the potential to become fully decentralised, non-hierarchical and cooperative. Its members can collectively establish the aims, ideals and rules for the organisation, and can encode, disseminate and uphold them electronically. The emergence of more accessible and user-friendly(ish) development tools for governance, collective decision-making and resource management<sup>13</sup> makes it possible to

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13 Furtherfield's CultureStake comes to mind, along with Gnosis Guild's Zodiac toolkit and Black Swan DAO's Cygnet. See <https://www.furtherfield.org/culturestake-2/>, <https://gnosisguild.mirror.xyz/>, <https://cyg.network/>.

prototype such organisations informally and in an intimate setting before implementing them on a much larger scale. This results in communities that can be at once hyper-local and trans-local.<sup>14</sup> Most importantly, such DAOs are, again, computationally enforceable and socially enacted, which makes them perfect examples of what I have here called structures of belonging.

Like all technologies, a DAO can be deployed with varying means and to divergent ends. On the progressive and left-leaning side, there are initiatives such as the Palestinian-led Dayra project (the Arabic word means both “circle” and “circulating”), which aims to build an infrastructure for circulating economic value “in the absence of money”.<sup>15</sup> However, even Friends With Benefits describes itself as a DAO. Its promotional materials feature an overload of catch phrases that invoke an ethics of the commons, but which also serve to disguise the DeFi spirit that drives the community: \$FWB token holders “*collaboratively* shape web3’s future [and] *collectively* fund and *govern* our *community endeavours* and *co-own* what we *create together*.”<sup>16</sup> There is a thin line, clearly, between decentralised venture capitalism and fractionalised ownership, on the one hand, and efforts to draw on digital technologies to rebuild the commons, on the other.

To paraphrase Kei Kreutler, a key developer and thinker in the domain of decentralised infrastructure for crypto-networks, a DAO can be thought of as a “group chat with a wallet”, but also as an “operationalised artist manifesto”.<sup>17</sup> Speaking on this topic in an interview, Nathan Schneider observed that we have arrived at a point when, technologically speaking, it is absolutely possible to design digital organisations around community-oriented principles of mutual aid, collaboration and sharing, and that we can hard-code these principles into the algorithmic protocols running an organisation. But he also

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14 Catlow, R., & Rafferty, P. (Eds.). (2022). *Radical Friends*. Torque Editions. See also <https://www.furtherfield.org/radical-friends-symposium/>.

15 *Dayra*. (n.d.). Retrieved December 27, 2022, from <https://dayra.net/>

16 *FWB*. (n.d.). Retrieved December 27, 2022, from <https://www.fwb.help/> [emphasis added]

17 As told by Leith Benkhedda of Black Swan DAO, and *Radical Friends* co-editors Ruth Catlow and Penny Rafferty, respectively.

noted that, ideologically speaking, most blockchain projects simply choose to prioritise other focus areas, such as user anonymity, digital scarcity or ownership protection.<sup>18</sup> It's up to communities of users and hackers, activists and artists to decide what social, economic and political visions will manifest in the DAOs to come.

Some of us have begun to prototype private micro-DAOs to better understand what blockchain affordances will best serve our purposes and to get to grips with the challenges of scaling up our radical imaginaries. But bigger, more sustained efforts have also been under way. In collaboration with the Goethe Institute, Serpentine Galleries and other arts institutions, Penny Rafferty and Ruth Catlow have spent several years theorising and cultivating a fast-growing community of *Radical Friends* around the idea of artworld DAOs.<sup>19</sup> Black Swan DAO (headquartered in Berlin) is part of this community and has been developing collaborative ways for managing and distributing resources in artist communities, but also for teaching others to play-test similar approaches for their own contexts.<sup>20</sup> An initiative called Bauhaus of the Seas is gearing up to develop a more-than-human environmentalist DAO in which sensor data collected from ocean creatures may have an aggregate voice in making decisions about ocean preservation efforts.<sup>21</sup> In Canada, Brian Massumi and Erin Manning's *3ecologies* DAO project, an "autonomous learning environment" focused on the social, the environmental and the conceptual, is being moved off the university campus and into the Quebec countryside.<sup>22</sup> Nextmuseum.io is considering prototyping a DAO that will allow disparate art audiences to collaborate on trans-local swarm curation activities.<sup>23</sup> Many more ideas are percolating in experimental settings such as the Crypto Commons

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18 *Democracy as a Design Space* (Interview with Nathan Schneider). (July 31, 2022). Blockchain Socialist. Retrieved December 27, 2022, from <https://theblockchainsocialist.com/democracy-as-a-design-space-interview-with-nathan-schneider/>

19 Catlow and Rafferty, 2022. See also <https://www.furtherfield.org/radical-friends-symposium/>.

20 *Black Swan DAO*. (n.d.). Retrieved December 27, 2022, from <https://blackswan.support/>

21 *Bauhaus of the Seas*. (n.d.). Retrieved December 27, 2022, from <https://bauhaus-seas.eu/>

22 *3ecologies*. (n.d.). Retrieved December 27, 2022, from <https://3ecologies.org/>

23 *Nextmuseum.io*. (n.d.). Retrieved December 27, 2022, from <https://nextmuseum.io/>

Gathering, which provides an IRL structure of belonging (a countryside guest house in Lower Austria) where technologists, economists, activists, artists and academics can meet, converse and collaborate across professional, disciplinary and ideological boundaries.<sup>24</sup> The list goes on.

I am only just beginning to theorise blockchain infrastructures as structures of belonging, but given the nature and trajectory of existing efforts, it seems that the concept can be useful for moving DLT beyond financialisation and capitalist enclosure systems. In this, my ideas resonate with the thinking Ruth Catlow, who considers belonging in relation to DAO efforts in trans-local art communities,<sup>25</sup> but also with older work from bell hooks, who invoked belonging to negotiate tensions between land access, ownership, community and identity.<sup>26</sup> Along similar lines, Sarah Keenan explores the decolonial potential of belonging to emphasise subjectivity and community and subvert conventional property relations.<sup>27</sup> This, in turn, conjures the writings of Deleuze & Guattari, who have located deterritorialising qualities in rhizomatic notions of belonging.<sup>28</sup>

And so, more hard thinking and experimentation remains to be done. What does it mean when a platform such as Friends With Benefits describes itself as a DAO? How can we ensure that the structures of belonging we are building will really move us beyond the asset logic of digital capitalism and its ruthless financialisation of everything it touches? How effectively can DAO tools and mechanisms ward off co-optation into conventional property enclosure mindsets? “Belonging alone,” Geert Lovink notes, “will not be sufficient to the work of organisation. Membership offers no guarantees.”<sup>29</sup> Will hard-coded, self-enforcing algorithmic rulesets offer the changeability that complex

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24 *Crypto Commons*. (n.d.). Retrieved December 27, 2022, from <https://www.crypto-commons.org/>

25 In Catlow and Rafferty (Eds.), 2022, 173–189.

26 hooks, b. (2009). *Belonging: A Culture of Place*. Routledge.

27 Keenan, S. (2015). *Subversive Property: Law and the Production of Spaces of Belonging*. Routledge.

28 See chapter 8 in Bruncevic, M. (2020). *Law, Art and the Commons*. Routledge.

29 Lovink, G. & Rossiter, N. (2018). *Organization After Social Media*. Minor Compositions, 27.

communities need? After all, it is crucially important to ensure that structures of belonging stay dynamic and malleable, attuned to the shifting needs and desires of everyone and everything that inhabits them.

The underlying technologies I have discussed here represent the most recent step in a long move “from commons to NFTs”.<sup>30</sup> The question is whether these same technologies cannot also be at the centre of a collective effort to reverse this move. Jaya Klara Brekke describes the tools, artefacts and protocols emerging from decentralised ledger technology as “bespoke variations on the themes of access, value and belonging”.<sup>31</sup> So, what flavour of belonging do we want? Wherever we engage with ambiguous technologies of decentralisation, transactionalisation and financialisation, we must ask, *How should a structure of belonging be?*, and find ways to act on that choice.

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<sup>30</sup> See Stalder, F. & Janša, J. (Eds.). (2022). *From Commons to NFTs*. Aksioma.

<sup>31</sup> *Ibid.*, p. 95.

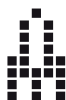


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