WALKING BACKWARDS INTO A MORE COOPERATIVE DIGITAL FUTURE

A Report by

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About the Institute for Digital Cooperative Economy

The Institute for the Cooperative Digital Economy (ICDE) is the research division of the Platform Cooperativism Consortium. Established in 2019, its research covers the emerging cooperative digital economy, which is a relatively unexplored domain in fields like anthropology, political science, sociology, history, law, and economics. The cooperative digital economy is rapidly expanding and is closely linked to labor and cooperative studies. The ICDE's work also focuses on finance, entrepreneurship, and organizational studies in business schools, as well as governance and corporate structure, which are critical subjects in law schools.

At the ICDE, we recognize that scholars, technologists, artists, community organizers, and cooperators equally contribute valuable insights to the development of a more just and equitable digital economy. Therefore, the Institute's mission is to provide applied and theoretical knowledge, education, and policy analysis to bridge the research gaps in the emerging cooperative digital economy. Learn more at https://platform.coop

1.

INTRODUCTION

During my fellowship, I have explored internet media, digital identity, decentralized technologies, and their intersections with platform cooperativism.

As a builder-scholar, my method is to build out into cyberspace, measure, self-study and share. Over the course of my fellowship, I've worked on a number of product experiments that center on self-chronicling the media in our lives. In building these products, I landed on key questions that inspired deeper research with the hope of unlocking insights for myself as a builder, but also for other builders that are concerned with pushing us towards a more cooperative future.

Below is a collection of three essays that chronicle some of the key questions I have been exploring. The essays can be read as three independent pieces, or as three acts in one story. The first essay is intended to anchor us in the fundamental principles that underlie much of my product experimentation — identity construction online and how it's intertwined with our passive consumption, active sharing and chronicling of things and ideas. The second essay grapples with the question of decentralization — how might a builder think through how to decentralize their project, and when? And we end with a broader discussion with a group of scholars and builders that affiliate with the various modern movements (Web3, DWeb and Platform Coops) in the hopes that it inspires a collectively-produced vision of what a more cooperative web might look like.

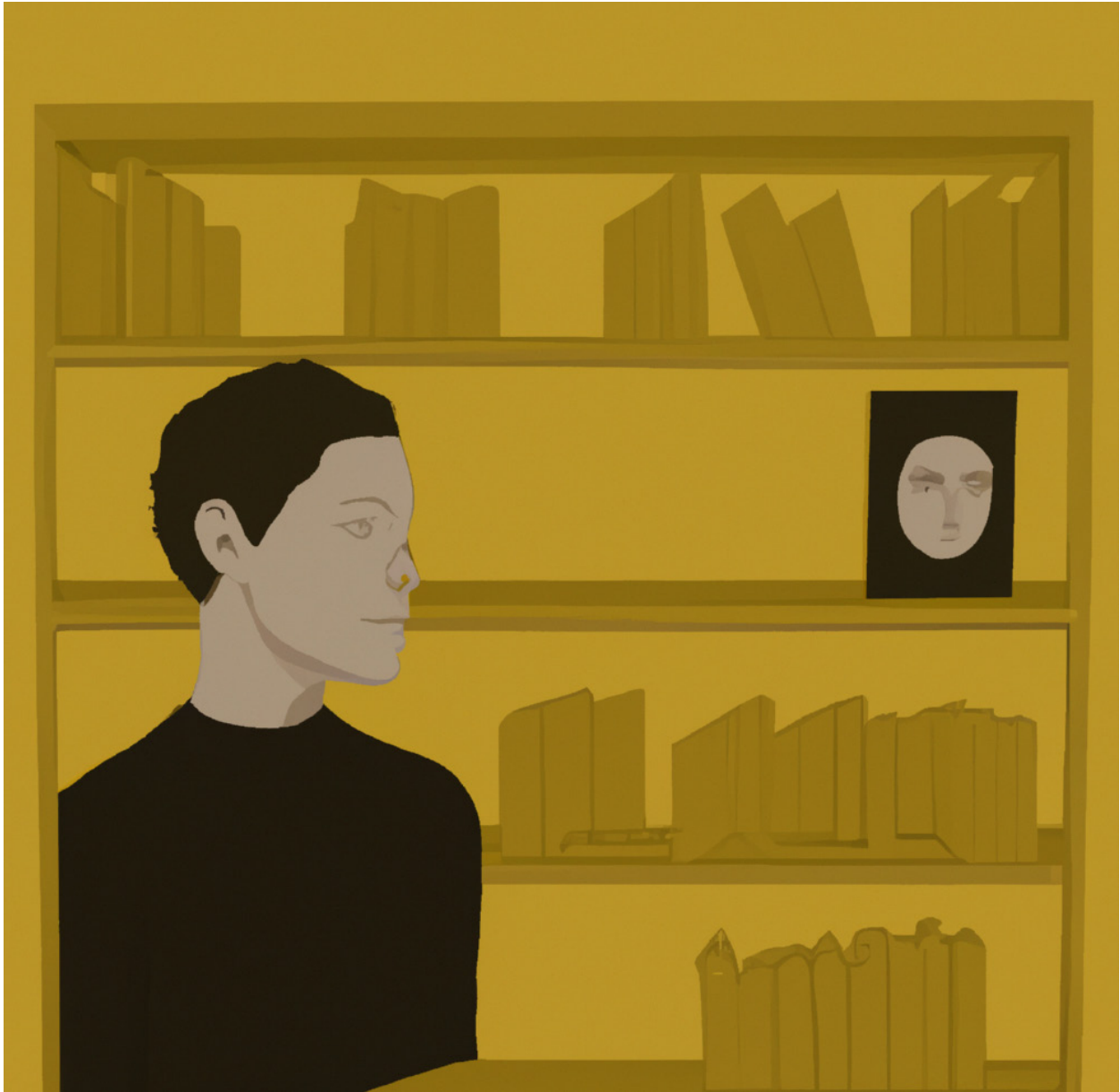From Shelf to Self: Identity Construction in the Digital World;

Progressive Decentralization: Practical Guidance;

Toward A More Cooperative Web.

2.

FROM SHELF TO SELF: IDENTITY CONSTRUCTION IN THE DIGITAL WORLD

Jad Esber and Leora Kornfeld are the authors of the following.

"concept art of someone looking at their soul on their bookshelf" — DALLE2

When we were thinking about ways to describe what purpose a new social bookmarking service or media aggregator could serve, we often found ourselves using the analogy of things tacked up on bedroom walls. Or record collections. Or the books on one's shelf. All of these represent a physical manifestation of who we are, what we are, and how we want those closest to us to perceive us.

Using this framing of the shelf as a proxy for the self, it's an interesting co-incidence that the words self and shelf are only one letter apart. Because to self-chronicle is to self-construct. The journey of identity construction is intertwined with our active collecting and chronicling of things and ideas. It isn't that fixed self that we have to actualize or memorialize, it's the changing and evolving one.

Life online can move so quickly it often feels like a blur. Swipe left, swipe right, swipe up, swipe down. Dings and pings for update notifications. The rabbit holes that algorithms send us down, some of which end up being too good for our own good. And the next thing we know, 3 hours have passed. In a lot of ways, today's internet moves at such speed that it puts us in a kind of trance.

Is the 'metaverse,' being heralded as the next manifestation of our connected lives, going to make things any better? What about the lean-back AI-generated future? One hint may lie in the 'For You'-page, and the impending FYP-ification of our digital spaces. Everything is being personalized not just down to the level of the individual, but also to the moment at which the individual opens the page. Today's online experience is dictated by momentum, instead of discrete moments.

What if we could slow things down, so that each digital moment doesn't merely 'autoplay' into the next one? A place where things that truly resonate with us can be captured and serve as extensions of ourselves. Where our online actions are more intentional, more contemplative, and more deliberately non-swipey.

At koodos labs,our mission is to strengthen our connection with ourselves and with the media and people that inspire us. We do this by building fun apps and serious tools for connected media. We describe some of the apps we've built as a "sanctuary".

> "One of the most necessary corrections to the character of mankind today is a considerable strengthening of the contemplative element in it."
>
> — Nietzsche

The people already using koodos come to the app during a "koodos moment"—that recognition of "i love this," that this thing I have encountered online really meant something to me, has reminded me of someone, has really resonated with me. If we wanted to get big-brainy about it, collecting on koodos lifts that moment to the level of consciousness. Of going from just one more nanosecond of life online to something of significance for us.

But simply collecting digital things, and moments, isn't enough.

To Produce Is to Realize

In French, the word for producer is 'réalisateur'— or the one who realizes. To produce is to realize. It's the idea of making something 'real,' of taking a jumble of ideas and turning them into something understandable and appealing. That's what good producers do. They make things that don't yet exist 'real.' And this applies beyond the context of identity construction. If we think about the process of navigating ideas, we strengthen our understanding of the problem or get clarity on the idea by producing, by shipping, by putting something out there. The act of producing helps you realize the idea and take it from abstract to concrete.

On the advice of a dear mentor, I (Jad) recently took part in a Hoffman Institute weekend retreat and was taken aback by the centering on "Expression" in their process:

THE CYCLE OF TRANSFORMATION

AWARENESS

EXPRESSION

COMPASSION & FORGIVENESS

NEW BEHAVIOR

In a psychotherapeutic context, you might have heard the advice to sit with that feeling to get through it faster. This is similar. Expressing ourselves—whether that's by speaking to others, journaling about it, embodying what we're feeling physically—the act of "expressing," and therefore "producing," helps us realize. On the internet today, consumption is considered the main way to establish one's particular identity (i.e. we are what we consume) and production is usually ignored in the discourse around identity-forming, since whatever we do outside of work is considered "consumption." But what happens if we reframe so that more of what we do is framed as "productive"—so that it isn't just what we consume that shapes our identities, but rather what we produce?

And the More We Realize, the More We Become Ourselves

> The unity of one's life consists in the coherence of the story one can tell about oneself.
>
> —Simon Critchley

As life plays out, we're constantly re-writing our one-page autobiography. And the story that we tell about ourselves might be different in different contexts, around different audiences or in different points in time.

> "Who are you?" said the Caterpillar.
> Alice replied, rather shyly, "I—I hardly know, Sir, just at present—at least I know who I was when I got up this morning, but I think I must have been changed several times since then."
> "What do you mean by that?" said the Caterpillar, sternly. "Explain yourself!"
> "I can't explain myself, I'm afraid, Sir," said Alice, "because I am not myself, you see."
>
> — Alice in Wonderland

We're constantly writing a rough draft of our autobiography. It's perpetually reshaped by our experiences, but also bounded by where we're at in our development. The more our story comes together, and the more at peace we are with our story, the more we know ourselves. And, in culture today, we're in the metamodern phase of rebellion against a fixed state of self—moving beyond the postmodernist view of "performing" as whoever we want to be at any given point in time.

Delineation of the Self as Part of Our Story

As we chronicle our lives online, we are forced to distinguish between our role as reader and our role as protagonist. And in that process, we separate the self from the things that influence the self in the story we tell ourselves, and the story we in turn tell the world about ourselves.

We rarely record such a realization of ourselves. Instead we capture bits of ourselves, operating in particular moments. But it is this deliberate self-chronicling that becomes self-constructive.

So rather than view our identities as a "nucleus" and our quest to center who we are in one place—to create one single central story, or one 'profile' of ourselves—our identity might be better conceived as "distributed." Distributed across media that's shaped us. We are a constellation of the things and experiences that define us. Or to use Walt Whitman's phrase, "we contain multitudes."

The reluctance of most user-generated content platforms to come to terms with their status as not just a social network but also a personal resource is rooted in this tension. Therefore, any effort to understand the nature and origins of the self is an interpretive effort largely done elsewhere, in parallel perhaps to our life online.

Our understanding of who we are is best served if we view it through a constructivist lens. That way we can see ourselves as the product of the situations in which we operate, the sum of things in which we participate, and put our gaze upon what is hopefully a vast collection of encounters and experiences.

3.

PROGRESSIVE DECENTRALIZATION: PRACTICAL GUIDANCE

Jad Esber and Scott Duke Kominers are the authors of the following piece.

Decentralization is an imperative in web3 – and it can also be useful in other business contexts. In web3, the entire point is to eschew centralization for security, openness, and community ownership, while in more traditional businesses, decentralization can help with stakeholder engagement and more-informed decision making – for instance, decentralization is key to executing the popular concept of a "self-managed organization[1]."

Yet starting out entirely decentralized can be difficult or even totally impractical. Early design elements of a project or business often require a more centralized vision and control. Some centralization at early stages can make it easier to coordinate, launch, and rapidly iterate toward product-market fit.

Starting out with some degree of centralization, though, doesn't doom you to stay that way. Here, we're going to explain how to design for future decentralization up front, and offer some guidance about when and how to do so. The guidelines apply to both web3 projects and to more traditional organizations.

If there's one thing to remember, it's that decentralization needn't be "all-or-nothing." With proper planning, you can decentralize over time. And to plan effectively, it's important to understand the different dimensions along which your business can decentralize, and how to do so at the proper times.

To make an analogy to an experience many of us have had, progressive decentralization is like an organization becoming fully remote. Starting out in a single central office with in-person meetings is helpful for coordination, but over time it can make sense to become more distributed. But to manage distributed work, it's essential to invest in remote communications technology, as well as in carefully documenting business practices and architecture. Designing an organization knowing that one day you'll all be remote[2] makes the future state easier. The same is true with progressive decentralization.

Decentralization can be valuable...

Decentralization is the transfer of control and decision-making from a centralized entity – a specific individual, organization, or group – to a distributed network. This can apply to many elements of a business, including content creation, organizational governance and processes, and even the tech stack.

Decentralization is often functional. For example, an organization might aggregate opinions from a decentralized network of individuals. Indeed, value creation in web3 is in large part about using shared ownership to incentivize participation and engagement from many people at once. (In a past article[3], we wrote about how "building open platforms that share value with users directly will create more value for everyone, including the platform.")

In other contexts, decentralization can provide security – for instance against censorship (although for this to work, it's important to structure governance correctly[4]). And separately, web3 platforms sometimes seek to decentralize for regulatory reasons[5].

Perhaps most importantly, decentralization can serve as a form of commitment[6] to build the product in users' best interests – similar to how shared governance leads cooperatives to emphasize healthy cultures and a long-run equitable distribution of resources and proceeds across members. There's also a group of people who are more likely to self-select into projects that have plans to decentralize both on principle – and because they believe that such projects will be more valuable in the long run.

... but decentralization isn't easy.

While decentralization can be valuable – necessary, even – it can be difficult to start out that way. Many pressures push toward centralization in the short run even for companies that are committed to decentralization in the long run.

Think of the challenge, for instance, of initiating a product or conducting the type of quick iteration required to get to product-market fit without a core central team or a centralized process for decision-making. Furthermore, decentralization in web3 also typically comes with an expectation of composability, which introduces the risk that someone else might "fork" your product before you achieve scale. And relying on decentralized governance or other forms of crowdsourced input without the properly de-

signed support structures – including those that drive engagement – can potentially expose a platform to risks of fraud or payola.

These forces encourage centralization early on. But it's important to ensure that they don't lead to design decisions that make future decentralization even harder. That is, even if there are good reasons to be more centralized early on, you should design for future decentralization.
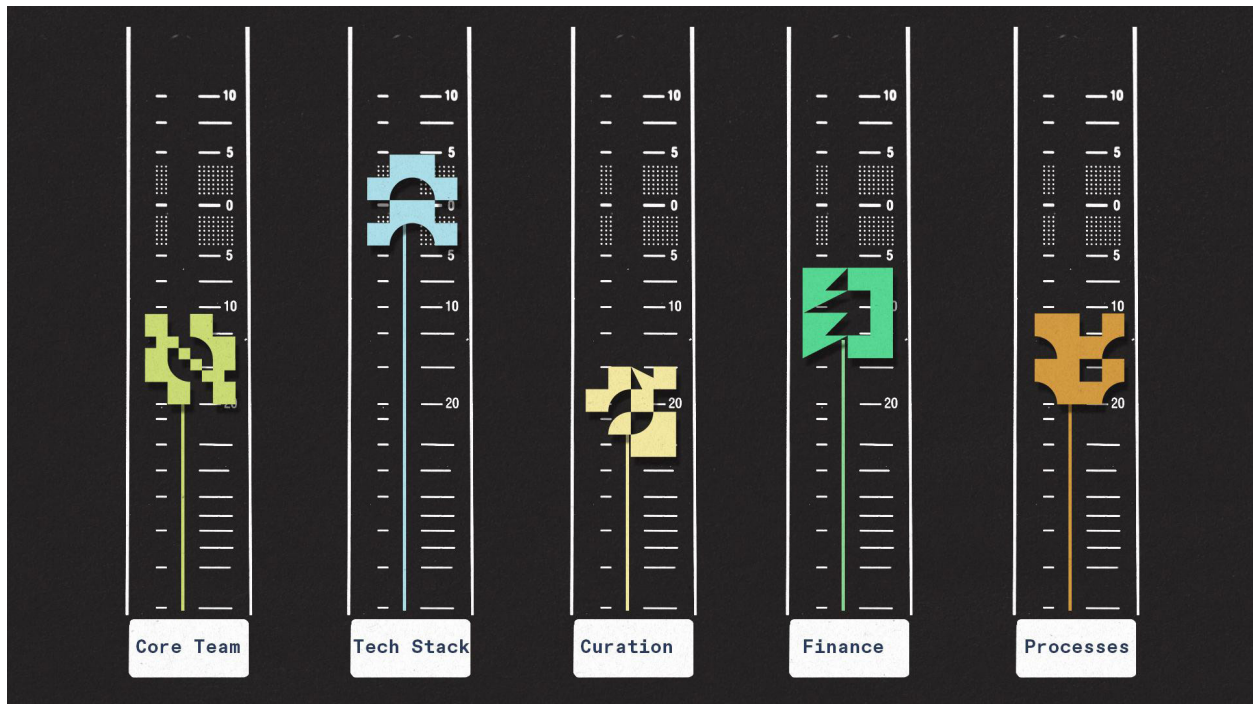
Progressive Decentralization

Here is some guidance to help you actively plan for future decentralization.

First, it's essential to identify the different dimensions along which your business can become decentralized. For instance, a platform might be able to decentralize content curation even while there is still a relatively centralized tech stack. A given product can be segmented into "minimum decentralizable units" (MDUs) that are mostly independent from one another, and then decentralized along each of these dimensions separately. MDUs might include the core team, external contributors, the tech stack, and so on – we discuss various dimensions in more detail below.

And then even within a given MDU, you don't have to go from 0 to 100 all at once. A platform might gradually decentralize curation, say, by first soliciting content recommendations from the community, before eventually turning over content decisions entirely.

Visually, we think of this as like a set of slider bars – a "decentralization equalizer," perhaps, with a different adjustment for each MDU. You can slide each bar up at its own pace, and the difficulty of sliding each bar is dependent on the business's readiness for change on that dimension. In this sense, while architecting with decentralization in mind is more costly upfront, it can become a key source of competitive advantage because it makes the process of decentralization easier in the long run.

The decentralization equalizer

Characterizing Minimum Decentralizable Units

It's important to stay aligned around a vision for how and what to decentralize, which requires some high-level coordination and usually some oversight over the "decentralization equalizer." MDUs will vary across different business and product categories, but here are a few examples, along with illustrations of how you might set them up for decentralization success:

1. **Core team.** Hire people who are able to set up their work so that it might be possible for external members to take over some of the responsibilities – for example, a community manager who designs the community in a way that allows members to start to self-manage and self-govern. Additionally, invest in upskilling your team with an eye toward decentralization as a long-term target, and of the new technologies and best practices that support those efforts.
2. **External contributors.** The further you slide toward fully decentralized, the more your community gets involved in how the product evolves and is governed. Calibrating based on how decentralized you want to be, you'll want to build in a participatory way and cultivate the community that's going to take part in building on top of shared infrastructure, contributing content, and/or governing the

system. And it's not just about inviting community participation – you have to design the organization in a way that enables people to contribute and rewards them for doing so. This means building robust feedback and engagement channels, together with the accompanying structures and processes.

On the reward side, meanwhile, introducing tokens to track and reward community contributions can help incentivize community sort of activity (see, for reference, this article[7] of ours for more on reputation system design). For example, you might start off by engaging external developers to test out your core infrastructure – perhaps by allocating tokens to developers who kick-start activity by building on top of the protocol.

3. **The technology stack.** The stack can be architected in a modular way that allows you to swap in decentralized versions of the centralized services that you start out with – for example, starting by storing content on AWS and, over time transitioning to decentralized storage services, like Arweave or IPFS.

4. **Finance.** You should plan for decentralization both in terms of how you fund the business initially and the various ways you allocate resources internally and externally, for example if managing an ecosystem fund or community treasury. In particular, you should structure finances in a resilient way that can sustain the organization without central control – for instance, consider how the investors you are bringing on would react to an exit to community control[8] (which we could call a "decentralexit," perhaps), and think through regular allocations to a community treasury.

5. **Internal processes.** It's important to invest the time upfront to think through what might be needed for you to decentralize parts of your operations and business processes – for example, you might need rich documentation that allows community members to understand precedent or context for specific decisions for governance.

It may be helpful to explicitly lay out your organization's MDUs so as to provide a clear view of the various levers that you can share with the team and community. Not only would sharing the roadmap be in the spirit of decentralization, the community can also help you get there – and hold you to account. Once you have a set of MDUs, figure out where the slider currently sits on each of the dimensions and start to form a view of where you'd like it to go over time. There is also an order of operations here that will make sense, and teams should probably start with the MDUs that have less of a negative impact if things go wrong.

Which Slider to Move, and When?

Finally: how do you know when it's time to move the slider up – that is, when can you increase decentralization of one or more dimensions?

Zooming out, it's first important that your overall system is relatively stable. What exactly does this mean? In an earlier article[9] for a16z, Jesse Walden encouraged teams to assess where they sit on the journey to and past product-market fit[10]: How many more iterations do you still need to go through, and how quickly? This is important because any form of organizational change will slow down the operation; you want to time moving a slider so that the long-run benefit of slowing down outweighs the short-run cost. Ideally, you would also make the move at a time when the social and economic dynamics of your platform have stabilized enough that you can robustly predict how adjusting the level of decentralization will affect community behavior and outcomes.

Next, you should assess each MDU in turn. Each dimension will have its own set of factors to weigh when deciding whether to adjust the slider. You might get pushed to decentralize on a specific dimension — for example, you might have too much user-generated content to manage on your own, making it critical to start involving the wider community in curation. Alternatively, you might choose to increase decentralization entirely of your own volition — one instance could be that you see long-term business value in storing content in a decentralized way, and so you make the active choice to start using a decentralized storage service.

And once again, it isn't all or nothing. Decentralization happens at a different pace along each MDU. For example, you might start to plan your finances in a way that keeps the option open to exit-to-community open from day one; establish a community treasury six months in; and then later switch to fully decentralized financial governance. And in parallel with that, you might maintain a fairly centralized tech stack while iterating toward a stable product before looking for more peer-to-peer options.

Decentralization is powerful, but it isn't easy. Especially early on, the need for fast iteration, quality control, and security often drive toward centralized development (although this might change as the technology for decentralized development improves).

If you aim for your business to be decentralized in the long run, the key is to plan for that upfront, and not lose track of it as you build. We might see the role of a CEO or COO evolve to take care of the "decentralization equalizer" – or even the introduction of an entirely new position, like a "Chief Decentralization Officer." Thinking in terms of MDUs can help you figure out where and how to decentralize different aspects of the product. And then as the product evolves, you can decentralize along each MDU progressively, when the time is right.

4.
TOWARD A MORE COOPERATIVE WEB

The following insights were shaped by the contributions of Avni Patel Thompson, Ethan Winn, George Oates, Jad Esber, Li Jin, Maxwell Kanter, Morshed Mannan, Philémon Poux, Sarah Hubbard, Scott Moore, Stefen Deleveaux, Trebor Scholz, and QZ Hum.

Over the course of my fellowship, I gathered a group of researchers, builders and activists to discuss platform cooperativism and the intersection with the web3 movement. We touched on some of the key takeaways from the history of cooperatives that can be applied to developing new internet platforms and protocols, as well as the challenges platform cooperatives face scaling alternative models of ownership and control. Consequently, we investigated how developers and emerging internet companies might learn from the shared history of cooperatives and how, in practice, they can construct systems that respect cooperative ideals. At the outset, we would like to point out the overgeneralization given the broad range of co-op models and emergent web3 technologies and projects.

The following is a summary of our discussions.

Walk Backwards Into the Future

What is web3?

In the context of this discussion, "web3" refers to the movement that's developing the technological innovations for the next phase of the consumer web — what comes after "web2." Many associate the term web3 with blockchains, and although it is likely that the next phase of the social web could rely on some aspects of blockchain technology, in our discussions we didn't anchor on it. In technical terms, web3 is simply private keys controlling public states enabling a form of "user-generated authority[11]." This would allow for self-certifying data that moves apps away from client-server architectures.

In general, the functional hallmark of any tech in web3 is interoperation and decentralization. Interoperation, on blockchains like Ethereum, is enabled by a unified data layer that allows separate applications to access a user's data, if that user permits. This means applications in web3 can interoperate and share data, as opposed to web2 applications that are siloed.

Decentralization refers to the fact that the blockchain is sustained by a decentralized network. Ethereum, for example, relies on validator nodes which verify and secure the state of the overall blockchain. Decentralization also enables blockchains to be censorship resistant, permissionless, and secure.

What is a Cooperative?

A cooperative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise. They follow the seven cooperative Rochdale principles[12] and can be separated into two main types[13]: worker and multi-stakeholder co-ops and consumer co-ops. It's really the former that creates social justice – but widely projections of social outcomes are made, erroneously, onto all types of co-ops.

We are talking about ownership and control by the people who use programs and services and are impacted by them — the people who labor on something and the people who benefit from it. While cooperative enterprises are not a prominent element of business and law school syllabi, more than 12% of the world's population are cooperators, belonging to the roughly three million cooperatives around the world.

Platform cooperatives, specifically, have become a prominent alternative to centralized platforms and focus on putting stakeholders before shareholders, in terms of conferring stakeholders greater say in the operation of platforms and more financial rights to returns earned by the same platforms. Given the importance of data in the digital economy, many platform cooperatives also explore new and innovative ways to involve members in decisions on how personal and business data is used, as well as how the front-end of their platform is designed. At present, there are more than 500 initiatives[14] building or running platform cooperatives in more than 49 countries.

> the future
> world of our dreams
> can't be built on the
> corruptions of the past
>   -- from *tear it down* by rupi kaur

The "Why" of the Underlying Movements and Their Values

Co-operative models are often born out of economic necessity, precarity and injustice. From the Rochdale pioneers[15] in the English industrial age who pooled resources and worked together so that they could access good-quality, affordable food staples to the mutual aid societies in Piedmont[16] that provided workers sickness, unemployment, and retirement benefits to autonomous worker cooperatives formed in Catalonia[17] during the struggle against fascism, history is replete with examples of collective self-help and self-reliance. In the wake of World War II, the regions of Mondragon[18] in the Basque country and Emilia Romagna[19] in northern Italy have emerged as vibrant cooperative ecosystems creating employment opportunities in economically depressed areas and contributing substantially to local development.

Countries in the Global South also have a rich and diverse history of self-help organizations, even though the reputation of the institutional co-operative movement in some parts of the world have been tarnished by their association with colonial[20] administrations and bureaucratization[21]. India's oldest worker cooperative, the Uralungal Labour Contract Cooperative Society (ULCCS)[22], arose from an anti-caste movement over a century ago to become a profitable worker cooperative in the construction sector, which is now the largest[23] of its kind in Asia. The Deedar Comprehensive Village Cooperative Society[24] in Bangladesh, which began with just 9 annas (1/16th of a then Pakistani Rupee) saved by 8 rickshaw pullers in 1961, now has assets worth roughly US$ 2 million[25], ranging from wells and schools to community centers and car garages. There are also numerous inspiring examples of autogestión—self-management where workers strive to create, provide and self-determine their collective reality—including the recuperated factories in Argentina[26] and Greece[27] that were taken over and run by workers following waves of financial crises. What these examples have in common is that they prefigure a different economic reality, one in which labor hires capital, instead of capital hiring labor.

These more recent examples reflect the change in socio-economic conditions in recent years and the evolution of the cooperative movement in response. Marcelo Vieta argues[28] that in the past couple of decades we have seen the emergence of a 'new cooperativism,, one which is deeply rooted in its communities and emerges as a bottom-up response to the rise of neoliberalism and has looser links to older institutional cooperative movements. This entails a more "gender-sensitive division of labor," "equitable distribution of social wealth," collective ownership, horizontal

decision-making, and "more egalitarian allocation of surpluses" than seen even in past cooperative movements (p. 60)[29]. The influence of this new cooperativism can also be felt in the growth of platform cooperativism[30] over the past decade, a movement that envisions[31] a more economically fair and democratic near-future alternative to platform capitalism that is grounded in cooperative principles.

Yet, as in the past, cooperatives—particularly worker cooperatives—have to confront the two challenges posed[32] by Sidney and Beatrice Webb to worker cooperatives roughly a century ago: "[a]ll such associations of producers that start as alternatives to the Capitalist System either fail or cease to be Democracies of Producers" (1920, p. 29)[33]. In that regard, the development of web3 technologies presents us with a pharmakon—it can be a remedy or a poison. On the one hand, web3 promises access to new financing options that can bolster the viability of some cooperatives as business concerns. The many experiments with, and tools built for, decentralized governance could potentially address some of the long-standing difficulties[34] in sustaining or scaling democratic participation in cooperatives. On the other hand, in the face of innumerable scams and fraudulent activities, there is a real danger that such experiments will, at best, corporatize cooperatives by subjecting them to the whims of financial investors instead of members and, at worst, gamble away the hard-earned resources of members. The governance practices, tools and techniques used in web3, from various forms of voting to the use of Snapshot, may not only fail to solve the root causes for lack of member participation, but could ultimately undermine the goal of economic democracy by installing forms of plutocracy. The need for guiding principles becomes clear due to these starkly different possibilities, as well as potentially policy or implementing mechanisms to avoid plutocracy.

The DWeb movement[35] that predates web3, has been focussed on pivoting (back) to a decentralized version of the web—evading massive platforms, sharing peer-to-peer and giving ordinary people control of their own data and a broad range of options for publishing or accessing information. Much like the early days of the web, the activist and academic-driven DWeb movement became over-ridden by commercial interests. The commercial hype saw a huge wave of interest with DeFi and speculative NFTs. There is an opportunity for web3 to reclaim the original DWeb narrative which centers on building decentralized, opt-in, collective governance systems.

With "web3" riding the coattails of the DeFi and NFT hype, it is clear that cooperative principles aren't a dominant aspect of the space, but our hope

is that it might grow [rhizomatically](#)[36] from it. We ask of the space, can we conceptualize a more mutualist web3?

We might ask how web3 enables us to consider co-ops and community-based asset management in ways that supersede exploitative hyper-capitalism? One fundamental offering that many in the ecosystem espouse is that we now have the opportunity to program our values into currency. Though largely under-explored in practice, this simple truth enables us to begin considering ways for non-financial motives to be programmed into our shared currencies. What would it look like if we began encoding cooperative values into underlying infrastructure?

And as platform co-ops continue to rise in popularity, we would like to see the web3 movement drive momentum towards cooperative ownership and governance — pushing power to the edges. Inspired by early thinking around a Digital Commons, we were drawn to the idea that the underlying infrastructure should not be controlled by one entity, but open to all people always.

Although there are important reasons for projects to start more centralized, we are concerned with the repercussions of recentralizing power in different hands on the DWeb. There's a need for a clearer view of web3 ideals to ensure that we don't risk repeating existing web2 inequities. For instance, web3 has implicitly pushed an ideal around building the re-decentralization of the web and shared ownership. And although some DAOs started with good intentions and ideals, many have in practice still turned into plutocracies.

One of the core rifts was around the question of trustlessness and efficiency. In opposition with much of the tech-driven profit-maximization and efficiency optimization driving web3, trustlessess and efficiency tend to not be a core goal in the cooperative movement. There are different types of cooperatives and their various approaches to trust and efficiency sit on a sliding scale, but in general the impression is that co-ops aren't necessarily trying to be more efficient, but usually are aiming to be more equitable.

"There are two principal means to assess equity: (1) on the basis of equality between individuals' contributions to an effort and the benefits they derive, and (2) on the basis of differential abilities to pay. The concept of equity that underlies an exchange economy holds that those who benefit from a service should bear the burden of financing that service. Perceptions of fiscal equivalence or a lack thereof can affect the willingness of individuals to contribute toward the development and maintenance of resource systems... Trying to work out an equitable assignment of the costs to the various beneficiaries is a challenging process, given that there are few ways of determining the relative size of the benefit flow."
-On "equity through fiscal equivalence" from Understanding Knowledge as a Commons[37] ed. Hess & Ostrom

One lingering question was around what accountability is in the case of web3? In cooperatives, all members are accountable to the collective. What are web3 "users"/"members"/"owners" accountable for and accountable to?

People Problems, Not Technology Problems

Building Communities & Trust

New web3 technologies and tools could provide ways to set up co-ops more quickly, at a lower cost and with greater distribution. Many projects are working on creating robust and permissionless digital systems that are able to honor some of the platform co-ops ideals. However, completely trustless systems are non-existent. Trust is earned – it's a very human construct that is the core of society and can't just be delegated to technologies. And there are a number of communities that have come up in the recent web3 wave that have simply become a local network of mutual aid. For example, UkraineDAO has really become a mutual aid network with people connecting people with others who can help[38].

However, overall, many are ignoring the real human needs behind a pseudonymous address. Many of the challenges faced by web3 are not a result of programmed trustlessness, per se, but of larger headwinds of distributed, digitally-enabled collaboration more broadly. As such, platform co-ops and web3 likely share many of the same issues and could benefit from similar solutions – including evaluating community health, building collectives and efficient democratic decision-making at scale. There's centuries worth of precedent on constructing systems around human cooperation and governance. Traditional systems are far from perfect, but there are

tons of dynamics that are crafted and well-worn. We should beware of imagining that tech will actually invent a panacea! The perennial issue of managing culture and people will not be solved by technology.
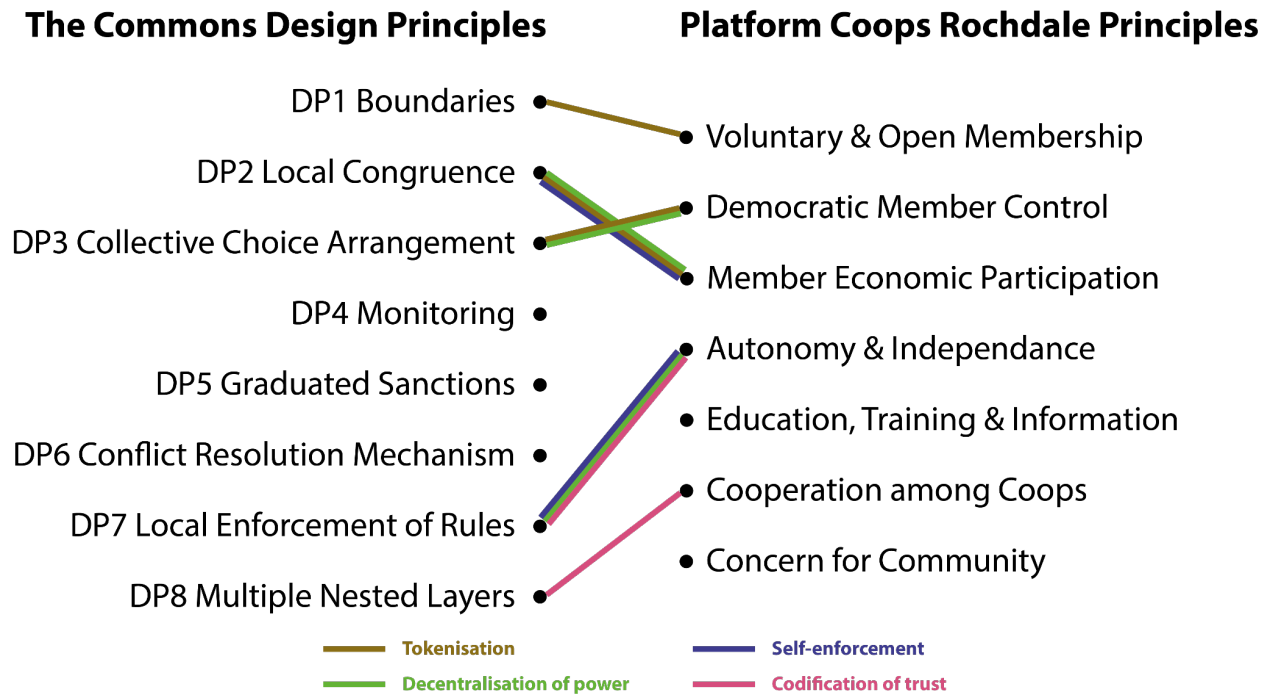
Governance

With respect to the question of efficient democratic decision-making, the general sentiment amongst scholars has been that it isn't very well suited for large, multitopic communities. For instance, a one person/one vote system doesn't really mean everyone's intensity of preferences is taken into account, and despite quadratic voting being a more appropriate approach, it often requires a lot of time from voters. Generally speaking, other forms of voting, such as <u>Liquid Democracy</u>[39] or other variations of delegative democracy try to address the issue of representation, but always face a trade-off between increased participation and time required from voters that can result in voter suppression for those with the least time on their hands. If these forms of governance are to become effective at internet-scale, taking a polycentric perspective might be best. Everyone's an expert in their local communities. Notably, this polycentric approach means that different forms of voting are relevant at different scales. For instance, representative parliamentary democracy might remain relevant for national elections with a very diverse array of topics but more direct voting with mechanisms to account for intensity of preferences are well suited to smaller-scales.

When considering what co-ops and newer decentralized organizations (commonly referred to as DAOs) can learn from each other regarding scaling and governance, there could be greater opportunity for growth through networked decentralization and federation instead of scaling single organizations. This model supports the sixth principle of the Rochdale Principles of "co-operation among co-operatives." The federation model for DAOs or sub-DAOs to scale could potentially create a path for maintaining agency and decentralization of power.

Globally, the Rochdale Principles offer a good entry point for assessing how DAOs might be used to implement platform co-ops. Rozas et al. (2021) identified 6 blockchains affordances and showed how they managed the implementation of the <u>Ostrom's 8 Design Principles</u>[40]. This is interesting as the <u>commons</u>[41] provides a parallel challenge of decentralized horizontal organizations that could engage in a two-way learning relationship with web3. Governance of the commons has managed to overcome many challenges associated with polycentric systems and, conversely, DAOs could be used to automate various governance processes in certain

commons. Extending the work of Rozas et al. and reusing the affordances they have identified, resulted in the following figure:

The Commons Design Principles   **Platform Coops Rochdale Principles**

DP1 Boundaries ●

● Voluntary & Open Membership

DP2 Local Congruence ●

● Democratic Member Control

DP3 Collective Choice Arrangement ●

● Member Economic Participation

DP4 Monitoring ●

● Autonomy & Independance

DP5 Graduated Sanctions ●

● Education, Training & Information

DP6 Conflict Resolution Mechanism ●

● Cooperation among Coops

DP7 Local Enforcement of Rules ●

● Concern for Community

DP8 Multiple Nested Layers ●

─── Tokenisation   ─── Self-enforcement
─── Decentralisation of power   ─── Codification of trust

On the left hand side are Ostrom's 8 Design Principles, on the right hand side are the Rochdale Principles and the principles are linked by the related affordances commonly discussed in today's version of web3.

Codifying Values

Co-ops emphasize the effort placed in creating healthy cultures and people systems in the early stages that pay dividends downstream. Among these practices are constitutions and by-laws that serve as solid anchors, along with embedded community norms that help uphold the artifacts so they aren't just "on paper." Having a "b-corp" equivalent could be one way of achieving this in web3, but as with a "stamp," once it exists, it's susceptible to capture and dilution if it becomes too easily obtainable or transferable. In the world of web3, where incentives are generated and distributed more freely, this problem can become more pronounced, increasing the need for clear constitutions and norms that ensure member alignment. In general, there's a lot to learn from the world of co-ops and we are excited to see more research into the determinants of successful cooperative models for internet platforms and protocols.

Towards a More Cooperative Future

Now more than ever, we need a more mutualistic version of the web. In the face of increasing regulatory uncertainty, and as bad actors continue to become more visible, many people question the fundamental value of web3. Why does web3 matter - and what is it even good for? It is our belief that more cooperation amongst diverse stakeholders within and beyond web3 would be immensely valuable – and although the future remains unwritten, we all have a hand in creating the world we want to see.

Looking forward, we envision an increasingly optimistic world where web3 enables communities to coordinate globally while collectively owning and governing their shared resources. Platform co-ops, as we explored above, don't optimize for efficiency, but rather equity. They don't optimize for value to shareholders, but rather value to stakeholders – and we realize that balancing these tradeoffs will be some of the most important governance decisions made by any of these organizations. We believe that web3 might enable scalable community ownership in a manner that enhances and substantiates the work of platform-co-ops.

Finally, we hope to see more web3 projects and organizations adopt cooperative ownership models, providing an often-overlooked historical framing for collective governance. The future is built by all of us, for all of us, and considering cooperative-enabled principles might help us all chart a more mutualistic path forward.
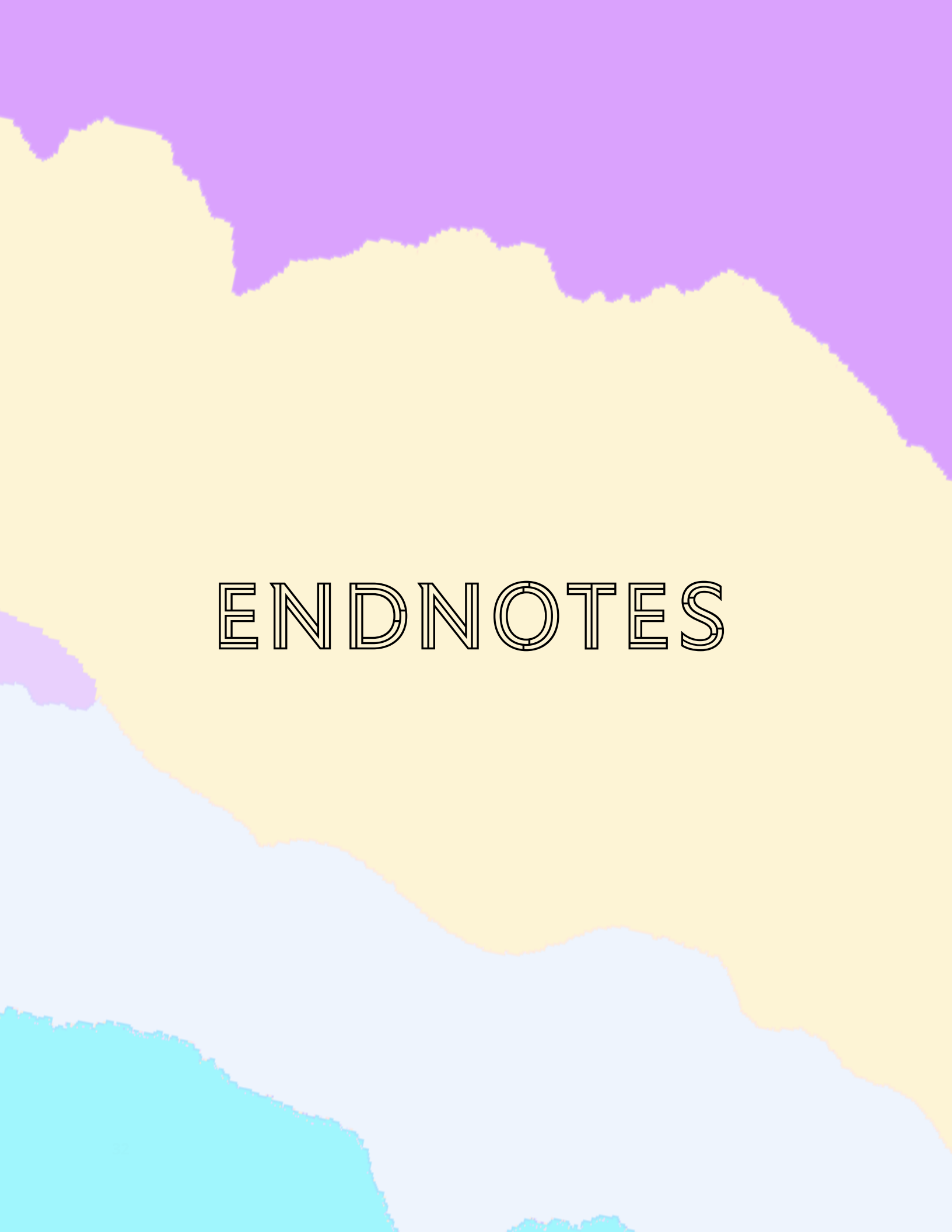
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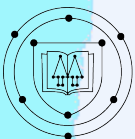
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