

Data Cooperatives for Pandemic Times

To avoid ‘co-op whitewashing,’ experiments with data co-ops should be co-developed with communities connected to the long history and analysis of the various forms of cooperatives.

[April 19, 2021](#) [Trebor Scholz](#), [Igor Calzada](#)

When COVID-19 hit populations worldwide, it became clear how deeply democracy writ large and data ownership and governance issues are interlinked. Consider the amount of data and resulting economic and political power is held by the five largest tech companies. Finally, legislators in [Europe](#) started to push back. But [one recent report](#) found a ‘data divide’ of inequalities in access, knowledge, and awareness of digital health technologies used in the pandemic, including symptom-tracking apps, contact-tracing, consumer-facing mental and physical health apps. The long-researched ‘digital divide’ expresses itself as a ‘data divide.’ On the heels of COVID-19, the patient voices demanding more sovereignty over health data are getting louder.

In response to such unjust data practices, we propose that data are economic resources that should be [organized locally](#) in data cooperatives and data trusts. Allowing data to be stored locally may encourage communities to access their data and make collective decisions about their use (and collection in the first place). How can data coops restrict data collection in areas of application where the affected communities can see no clear benefit? An alliance of data services offered from the margins might help to diversify the digital economy gradually.

Among scholars, coop-practitioners, founders, experts on the protection of civil liberties, and technologists, discussions about various forms of [community data ownership](#), data portability, [data stewardship](#), [data sovereignty](#), and cooperative digital infrastructure have intensified! The leadership of the city of [Barcelona](#) sank in its heels, demanding [technological sovereignty](#) over Uber and others operating in the city. In New Zealand, [Indigenous Māori communities](#) had unequal access to data about COVID-19. Unjust data practices privileged the dominant Pākehā (NZ European) population. In Canada, equally, First Nations demand “[Indigenous data sovereignty](#).”

Community Ownership for the Internet Matters

We call for experimentation with [community ownership](#) in the digital economy. The ownership of assets has profound implications on many aspects of life. It impacts income inequality and, concretely, the daily experiences in the [workplace](#).

We center our proposal around a [cooperative digital](#) economy, which embraces data cooperatives, and various forms of community ownership. With cooperative ownership, members jointly decide the rules of the operation. We call for change from the current

paradigm of individuals giving up data to large tech companies to a [system of community ownership of data](#). This would entail communities to data rights and accountability, legal standards, and fiduciary representation. The collection of data needs to be beneficial for communities in the eyes of the communities themselves.

Who would be ideologically better suited to collectivize data than cooperatives? Responsibly collecting, storing, sharing, and using data is key to [unlocking its potential](#). Governance of such data means communities' [data rights are protected](#), and the use of data is fair and focused on social benefit. Communities should be able to decide which data are collected about them in the first place and for what purpose.

We propose broad-based experiments with 'data cooperatives,' starting at the local level. Data cooperatives are member-owned data management storages with fiduciary obligations to members. Members can be high in numbers, distributed across a given territory.

All data usage is for the benefit of members and can only be conducted according to rules that the members agreed on. Data coops can limit or modulate the capture of personal data to create value for their members. Revenue from data can be used to create positive social change by funding public research, for instance. Data cooperatives are part of the ecosystem of the [digital cooperative economy](#).

It is also essential to stop for a moment and recall the globally shared definition of the cooperative form:

“A cooperative is defined as 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.”

The definition matters as cooperatives are self-organized and autonomous. The notion of imposing the cooperative model on communities is unhelpful and even possibly harmful.

Currently, crypto and token economy (driven by distributed ledgers, including blockchain) are quickly developing prototypes that could feed [the development of data cooperatives](#). In the [crypto space, there are many, even if well-meaning, misunderstandings](#) with, for instance, likening VISA and SWIFT networks to being genuine cooperatives simply because they are “member-owned.” Blockchain and smart contracts allow those with access to these technologies to create [tokens that can be used](#) for the governance of co-ops. They represent assets that can be used to reinforce and build desirable behaviors. But so far, despite interesting ongoing experiments, how to design and apply token systems is still unclear.

The Pioneers of Data Co-ops Are Among Us!

Data co-ops are not a figment of the academic imagination; they are already among us. Examples include [Salus](#), [Driver's Seat](#), [LBRY](#), [dOrg.tech](#), and [MiData](#), [Gooddata](#), [Mnemotix](#), and [Polypoly](#).

Salus

Salus Coop is a non-profit data cooperative for health research (referring not only to health data but also lifestyle-related data more broadly, such as data that captures the number of steps a person takes in a day), founded in Barcelona in September 2017. Salus aims to create a citizen-driven collaborative governance model and management of health data. It legitimizes citizens' rights to control their health records while facilitating data sharing to accelerate public research innovation in healthcare.

MiData

MIDATA.coop is a "health data cooperative" started in 2015. MIDATA.coop enables citizens to securely store, manage and control access to their personal data by helping them to establish and own national/regional not-for-profit MIDATA cooperatives. MIDATA cooperatives act as the fiduciaries of their members' data. MIDATA offers a platform on which user-members can securely store copies of their medical records, their genomes, and their mHealth data. MIDATA hopes to become something of a gatekeeper for this data, attracting non- and for-profit researchers while allowing member-owners of this co-op a high degree of control over who can access their personal data. They might decide to give their physicians access to absolutely all personal data through the platform, while a not-for-profit cancer research institute could be given access to only medical and dietary information. Members could deny access to an exploitative for-profit drug company or even for-profit researchers in general. Companies who would like to access the data held by MIDATA serve as the co-op's source of funding, paying a fee to make use of this health data in their research.

LBRY

LBRY states: "We think users should own their content (and their privacy) instead of handing it over to a corporate giant and their advertising buddies. If you think we're paranoid, there are dozens of examples of [companies abusing users](#) and acting against their interests. It's not paranoia if they're actually out to get you."

Polypoly

[Polypoly.coop](#) is a data cooperative that ensures that personal data no longer leaves a device, whether mobile phone, computer, or web-enabled toaster. PolyPod, the member of the co-op, has a private server that stores his/her data, and that is controlled by him/her.

dOrg.tech

[dOrg.tech](#), currently transitioning to a data co-op, is a full-stack development collective

that works with industry-leading projects in Web3 by using a decentralized manner by builders around the world through smart contracts, blockchain, and Ethereum.

Local Experimentation For the Win!

Locally-based data cooperatives for local experimentation may provide a promising pathway: They could be rooted in an understanding of sovereignty over their data and, based on their specific cultural traits and features, [resisting data colonialism](#) or the imposition of external technical principles or legal templates. Local Experimentation FTW!

Communities will also have to be educated about the cooperative principles to lay the foundations for data cooperatives. Such local data cooperatives [cannot be replicated](#) because they might depend on their contextual and territorial critical factors.

Limits

We are not mistaking data cooperatives as a panacea that will fix all ills of [platform capitalism](#). We understand it as an approach that is part of a toolbox that also includes unions, neighborhood associations, regulatory intervention, efforts such as [Solid](#), [public ownership](#), and [hybrids, among these forms](#). Professors Katharina Pistor and Trebor Scholz argue that the Limited Liability Corporation (LLC) can be designed to function as a “platform a cooperative” (forthcoming). This might be a more suitable format.

What happens over time — how can governance within cooperatives erode or be destroyed, especially in transitions as people come and go/leave?

We also acknowledge the limits of data ownership. But what does data ownership or ownership of a digital platform mean when most groups rely on commercial upstream services? What does it mean when data cooperatives are using proprietary software and the cloud services of large tech companies? An alliance of cooperative [data services offered from the margins](#) might gradually overcome commercial upstream services by decentralizing data governance models at the local level.

In principle, cooperatives should be terrific at sharing data. After all, one of the principles of the International Cooperative Alliance (ICA) is the Cooperation among Cooperatives:

“Cooperatives serve their members most effectively and strengthen the cooperative movement by working together through local, national, regional and international structures.” Beyond the cooperative movement, pioneers in the digital cooperative economy are inspired by [African Ubuntu philosophy](#) and the subsistence economics at the heart of [Buddhism](#). All three make the common-sense argument for sharing and interconnection.

But also modern corporations understand the power of cooperation. One of the starkest examples of corporations refer to as ‘co-opetition’ is that of Apple and Google. In exchange for building Google’s search engine into its products, Apple receives \$8-12 billion dollars a year. That amounts to 14 to 21 percent of [Apple’s annual profits](#). Corporations also fund think tanks to provide an intellectual rationale for their activities. By any measure, currently (and paradoxically), corporations are far better at cooperation among themselves than the cooperative movement is.

Legal scholars and technologists should also be aware of the colonial history that left a global bitter aftertaste for many people when they hear the word “cooperative.” British colonialists championed cooperatives in the fishing villages of Hong Kong and farming co-ops all over India. Colonial powers supported the introduction of cooperatives to advance their own economic interests. In India, this included the production of Indigo. In colonial Africa, colonial powers steered cooperatives primarily towards the production of cash crops for their home countries, namely coffee, cocoa, tea, and cotton. In colonial South Africa and Kenya, agricultural cooperatives owned by Whites were heavily subsidized by governments, incentivizing European settlers while also making sure that co-ops had monopolistic control of the sectors they worked in. Earlier, we had emphasized that co-ops are autonomous. While cooperatives of any kind cannot thrive without government regulation, they should only set enabling conditions. Governments in Kerala, India, and Sri Lanka govern cooperatives top-down, which directly conflicts with their core mission.

“Nothing About Us Without Us,” the slogan of the international movement of people with disabilities, also fits into the context of our discussion here. We can apply it to the creation of data cooperatives. It would be ironic to repeat any of these mistakes with data cooperatives. Communities, not academics or governments alone, should shape the legal framing of data trusts, data cooperatives, and cooperative digital infrastructure that are meant to serve them. Communities should be at the table when discussing legal instruments for data co-ops. Co-op experts, co-op historians, and leaders of co-op organizations, especially LGBTQI communities, indigenous peoples, and those from the Global South, should be part of the conversations about legal templates and technological infrastructure.

The Dangers of Co-op White Washing & Data Colonialism

Unexpectedly, in Law and Business schools in the [United States](#) and the [United Kingdom](#)—traditionally, the resourceful experts of the modern corporation—there is much interest in [data cooperatives](#) right now. This is surprising as the cooperative model is not broadly [taught](#) in these schools. In the halls of many Law Schools, the co-op model is a well-kept secret. Our argument for years has been that these schools should stop their neglect of the cooperative form in their teaching and research.

We welcome the embrace of the co-op model and understand the thrill of pioneering legal or technical models for novel data management. Proposals for data co-ops should be: co-developed with co-op practitioners, and connected to the long history and analysis of the various forms of cooperatives. The history of people working toward a Cooperative Commonwealth. Such a cooperative commonwealth is based on the vision of a society rooted in cooperative and democratic socialist principles. It includes a network of small, autonomous, interlinked but competing co-ops. Think of the Knights of Labor that fought for a multiracial “cooperative commonwealth” as early as the 1880s.

But in countries like the US, exchanging data among co-ops may be perceived as the formation of cartels, prohibited through the [Sherman Antitrust Act of 1890](#). Regulatory intervention should impose, as part of antitrust action, the mandate for dominant platforms to permit data portability. This would soften the network effects that keep the five largest tech companies unchallenged. We, therefore, call on governments to permit social economy organizations to share data among themselves.

Localized data need to be federated into [data ecosystems](#) if we want to reach a digital cooperative commonwealth. [Distributed ledgers](#) are likely able to help. Communities will be using their own data gathered in local repositories. This [is the case of Eva.coop, a Montreal-based data cooperative](#): They provide an infrastructure for groups but without accessing local data about passengers. Some data are shared, however.

Eva.coop is built on the [EOSIO blockchain protocol](#) as a way to show how the cooperative model could mark a new [blockchain-based iteration](#) of the sharing economy driven by a decentralized system that respects the privacy of workers and meets local needs. Local data matters, and Eva might have shed light on the way to follow. Local communities have more input, and drivers are treated more fairly, riding members maintain their privacy, and comforted by a locally supported app.

Such [federated, decentralized data ecosystems](#) can be arranged by sectors (e.g., health-related data, environmental data, transport, and mobility data, energy and consumption data). Communities can then decide to release those data meaningfully. Research showed, for example, that the various types of co-op models generate very different mutualistic benefits. What makes credit unions or consumer co-ops the go-to model for legal scholars and technologists? The multistakeholder model, based on the research, would seem a more likely candidate.

One of the technical architects of the [General Data Protection Regulation](#) (GDPR), Professor Alex Pentland at MIT, called for data cooperatives to become the guardians of community data. [According to Pentland and Hardjono](#), with 100 million people

members of credit unions in the US, the opportunity for community organizations to leverage community-owned data is massive. In this direction, it goes without saying that the consumer co-op or [credit union model has not shown the strongest results when analyzed through a social justice lens](#). While being very large, credit unions have been criticized for straying from the cooperative principles, low participation, and engagement, frequently not offering a distinct, felt difference to conventional banks. We also question the objective to create dominant data cooperatives through credit unions for community data. Cooperatives, when acting as de facto monopolies, have not shown to behave meaningfully better than other organizational forms.

Without such bottom-up collaboration and clarity about the [cooperative principles](#), there is a considerable danger of “co-op whitewashing.” Co-op whitewashing entails the promotion of fake platform co-ops. Such propagation would be ironic given the fact that the “[sharing economy](#)” advanced using a deceptive discourse that used the language of counterculture, love, P2P, and cooperatives to sell commercial platforms.

Co-op whitewashing can generate great harm. Brazil is a historical example of what can go wrong when lawyers take the lead when designing legal framing for cooperatives. In 1994, Art. 442 of Brazilian Labor Law mandated that “[Whatever the branch of activity of the cooperative society, there is no employment relationship between itself and its members, ...](#)” As a consequence, labor rights were harmed as many businesses now incorporated as co-ops simply to avoid having to pay benefits to workers.

Moving Forward

The [COVID-19 pandemia](#) will hardly fade away in the upcoming months or even years. More urgently, it might have already shown how vulnerable human beings are regarding the consequences of a global turning point as the pandemic. Gladly though, the resilient reaction [here and there](#) undoubtedly from people and communities depicted encouragement and is being reflected in local communities. An internationalist movement driven by a vision of a Digital Cooperative Commonwealth is required to structure a social and economic post-pandemic transformation. Reshuffling the ‘old normal’ will not be enough. We consider these pandemic times to be productive for experimentation with data coops, working toward reducing health inequalities, building more responsive systems of care, and adequate medical services. Data cooperatives must be shaped by those who need them most, grounded in the history and practices of the global co-op movement. We see a virtuous tornado of federations of small cooperatives forming on the horizon.