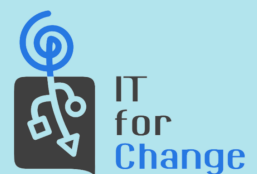


IT for Change's Submission to the Expert Mechanism on the Rights of Indigenous Peoples

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Indigenous Peoples Right To Data, Including Data Collection And Disaggregation

Submission to the Expert Mechanism on the Rights of Indigenous Peoples

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The right of Indigenous Peoples to access and control data about their peoples, territories, lifeways, and resources is well-affirmed in international law.² Today, the digital world has resurrected questions of Indigenous sovereignty; and how datafication implicates and is implicated in the rights of Indigenous Peoples. International law mandates the principles of free, prior, and informed consent as well as prior consultation be upheld whenever Indigenous resources are sought to be appropriated. In a datafied world, these rights must extend to the realm of data, which, as a new, intangible resource, is a site of tremendous value. In addition, there is a need to reimagine the centrality of consent and consultation and go beyond these requirements to secure meaningful Indigenous data sovereignty.

In our submission, we wish to outline the unique problems that Indigenous Peoples encounter while navigating our digital landscape, and how Indigenous perspectives can be centered in technological transformations to secure sovereignty over their digital futures.

1. Indigenous Futures in an Intelligence Economy

Datafication is not a neutral process of consolidating fragments of information. It gives rise to new realities and truths, raising ethical and political questions for the social and economic reshaping of Indigenous Peoples. And neither is data merely individual fragments of information. Data's criticality lies precisely in its ability to cumulatively amplify "intelligence value"³ which far outstrips the value of singular data points. It is precisely these characteristics of data that require appropriate national and international governance regimes to secure the redistribution of digital intelligence value to the Indigenous Peoples whose data give rise to it. The extraction of Indigenous data to power AI and generative technologies within capitalist systems undermines the rights of Indigenous Peoples by trapping Indigenous knowledge in proprietary enclosures,⁴ commercializing traditional knowledge⁵ and erasing Indigenous notions of communal resource management. This form of extractivism is often reductionist and antithetical to Indigenous Peoples' worldview.

¹ Authored by Anita Gurumurthy, Sadhana Sanjay and Saloni Mishra. Contact: itfc@itforchange.net

² https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf

³ <https://longreads.tni.org/stateofpower/the-intelligent-corporation-data-and-the-digital-economy>

⁴ https://unctad.org/system/files/information-document/CSTD2023-2024_Issues01_data_en.pdf

⁵ <https://itforchange.net/sites/default/files/add/GDJ%20Forum%27s%20Submission%20to%20the%20Joint%20Questionnaire%20for%20CSTD%E2%80%99s%202020-year%20review%20of%20WSIS%20implementation.pdf>

AI and algorithms are not merely decision-makers —the real social power wielded by algorithms lies in their ability to determine and reorganize the boundaries of ideas and practices, such as property ownership.^{6 7} For instance, India's land records digitization program dispossessed Indigenous Adivasi communities by failing to account for traditional practices of collective property rights that defy dominant notions of private and individual ownership.⁸ This pattern is also visible in Nagaland, where carbon datafication obscured communal understanding of lands, allowing for land management practices that serve carbon finance goals, resulting in the material reorganization of space and erosion of Indigenous access and control over Naga land and resources.⁹

Tokenistic tools of individual consent and openness of data fail to secure meaningful data sovereignty for Indigenous Peoples. One-time individual consent does not account for the multiple downstream uses of data, wherein it is constantly repurposed to shed its provenance and evade proper attribution.¹⁰ Analogously, openness —a norm that is often touted as necessary for data ethics —could perpetuate colonial patterns by allowing unrestricted access to Indigenous data without proper benefit-sharing and redistribution of value.¹¹ Oftentimes, data on seeds, soil, fertilizers, and weather is extracted by agricultural and pharmaceutical giants and fed into their AI systems. These systems then dictate what and when farmers should cultivate and what products they should use, stripping them of control and ownership while devastating Indigenous lives and livelihoods.¹² This commodification without consent, recognition, or compensation mimics historical patterns of exploitation and contributes to the digital disenfranchisement of Indigenous Peoples.

Securing Indigenous data sovereignty requires redistributing intelligence value back to the Peoples whose data footprints generate it, ensuring that data-driven insights serve their interests rather than reinforcing inequitable structures.

2. Indigenous Resource Sovereignty in International Law

The perception of Indigenous resources and land as free for appropriation has a long colonial history.¹³ In today's datafied world, data has emerged as a new site of extraction, and this logic of accumulation similarly applies to data on and the knowledge systems of Indigenous Peoples.¹⁴ The capture of Indigenous data by global capital is a serious infringement of the rights of Indigenous Peoples under international law. The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) reaffirms the rights of Indigenous Peoples around the world to access and control data

⁶ <https://www.dukeupress.edu/cloud-ethics>

⁷ <https://journals.sagepub.com/doi/10.1177/1367549415577392>

⁸ https://itforchange.net/sites/default/files/2224/ITFC_Recasting%20Land%20Tenure%20Rights%20in%20the%20Data%20Epoch.pdf

⁹ <https://www.sciencedirect.com/science/article/pii/S2666378323000053#s0045>

¹⁰ <https://cipit.org/formal-recognition-of-indigenous-data-in-ai-the-role-of-the-wipo-treaty-on-ip-genetic-resources-traditional-knowledge>

¹¹ <https://arts.ubc.ca/news/indigenous-data-stewardship-stands-against-extractivist-ai/>

¹² <https://www.etcgroup.org/content/did-you-know-digitalization-agriculture-could-affect-farmers-rights>

¹³ <https://press.un.org/en/2012/hr5088.doc.htm>

¹⁴ <https://montrealethics.ai/in-consideration-of-indigenous-data-sovereignty-data-mining-as-a-colonial-practice/>

about their peoples, territories, lifeways, and resources.¹⁵ UNDRIP also recognizes the need to “respect and promote the rights of Indigenous Peoples affirmed in treaties, agreements and other constructive arrangements with States.”¹⁶

Going back two decades, the Inter-American Court of Human Rights ruled that Nicaragua violated the property rights of the Mayagna Awas Tingni people by granting a logging concession on their land without their consent and against their interests.¹⁷ Skipping a decade ahead, the same court entertained the petition against Ecuador, which granted a concession for oil exploration and exploitation in Sarakyu lands without prior consultation, leading to widespread destruction of the ecosystem and Indigenous lives. The court deemed that prior, informed, and culturally appropriate consultation was a prerequisite for any extraction of Indigenous resources.¹⁸ In these judgments, the court went beyond acknowledging the requirements of consent and consultation under international law and affirmed that absolute control over the use of Indigenous resources is an integral component of sovereignty and self-determination.

There is thus a rich judicial tradition that makes clear the sovereign control that Indigenous Peoples are entitled to over their resources. The sovereignty affirmed in these landmark cases must also extend to data (personal and non-personal) as well as data-based digital intelligence (including algorithmic models and AI systems) by recognizing Indigenous Peoples’ rights, interests, and control over their data. This is also seen in the Māori Data Sovereignty project, which upholds the tradition of sovereignty by grounding Māori rights in the collection, ownership, and application of their own data.¹⁹

3. Ethics of Indigenous Data Collection and Access

Meaningful Indigenous sovereignty begins with the interconnected need to ensure that data collection reflects Indigenous priorities and that access is both relevant and protected. The datafication of Indigenous People’s environments, social and economic locations, communities, practices, knowledge, and so on must begin with the question of ethical data collection. Researchers have steered us towards a starting point through several indicators for ethical data collection. First, the question of access is crucial — are findings made accessible to Indigenous Peoples? Relevance must also be prioritized— are the findings reported in the context of issues defined by Indigenous Peoples? Attribution is another important factor — are they acknowledged for their contributions, such as through co-authorship or recognition? These approaches can build trust and foster respectful collaboration, grounded in transparency, mutual respect, and a shared understanding of Indigenous data.²⁰

Indigenous Peoples have historically also had limited access to their data, even in traditional datasets in research, national census, surveys, etc. due to obstructions of availability, relevance, and cost.²¹ These problems are compounded by a significant ‘data gap’ since Indigenous community organizations often have to rely on government data to design, deliver, and evaluate services.²² However, much of this legacy data is frequently too generalized or

¹⁵ https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf

¹⁶ <https://www.frontiersin.org/journals/research-metrics-and-analytics/articles/10.3389/frma.2023.1173805/full>

¹⁷ https://oas.org/dil/XXXV_Course_IACHR_Case_Mayagna_v_Nicaragua_Luis_Toro.pdf

¹⁸ <https://www.escri-net.org/caselaw/2012/pueblo-indigena-kichwa-sarayaku-vs-ecuador/>

¹⁹ <https://www.tewhātuora.govt.nz/health-services-and-programmes/maori-health/maori-data-sovereignty>

²⁰ <https://www.nature.com/articles/s41746-024-01070-3>

²¹ <https://ajph.aphapublications.org/doi/10.2105/AJPH.2023.307503>

²² <https://www.urban.org/urban-wire/native-data-sovereignty-can-address-data-gaps-and-improve-equity>

inaccurate, as it is collected and structured to reflect the needs of the mainstream population. Consequently, it fails to capture the unique realities of Indigenous Peoples. To remedy this issue, Indigenous community data needs to be generated from the ground up, reflecting priorities, knowledge systems, and structures designed by Indigenous Peoples themselves.²³

4. Deficits in Global Governance & Decentralised Data Imaginaries

The interplay between different global governance mechanisms has created a permissive environment for the extraction and exploitation of Indigenous resources. For instance, the intellectual property law regime offers little protection for knowledge systems that rely on collective and communal rather than individual and exclusive concepts of ownership. A more current example is Digital Sequence Information (DSI), which is emblematic of the perils of disparate governance mechanisms that do not speak to one another. The 2010 Nagoya Protocol to the Convention on Biodiversity (CBD) was adopted to implement a key objective of the CBD— the fair and equitable sharing of benefits arising from the use of genetic resources. At the time of its drafting, the text was silent about whether DSI falls within the definition of “genetic resources”, which has now given rise to different interpretations and created a legal loophole. The Convention was drafted keeping tangible biological material in mind and did not envision the ease with which DSI can flow today.²⁴ In effect, this has allowed the rights of access and benefit-sharing under the Convention to be circumvented. For instance, Regeneron, the US company behind Inmazeb, used DSI isolated from a Guinean woman without consent to create the Ebola antibody, bypassing any obligation to share the benefits with Africa by opting for sequence data instead of a physical sample.²⁵ This demonstrates how current practices of sharing and using DSI, which take advantage of the existing legal loophole, have allowed the access and benefit-sharing rights of Indigenous communities under international law to be nullified.²⁶ Certain powerful actors, including states and scientific-industry lobbies, use technical excuses such as limitations in the definition of genetic resources in the CBD to persist with these practices, with no global governance that enforces the right of access and benefit-sharing.²⁷

Consequently, there is an urgent need for a multilateral stewardship model for governing Indigenous resources that ensures the equitable distribution of data dividends. This approach begins with an acknowledgment of contradictory interests, beliefs, and approaches toward data use and reuse but emphasizes building trust and negotiating directly with Peoples on how data is accessed and used. Embedded in the Indigenous Data Sovereignty (ID-SOV) movement, a social license is concerned with the rights of Indigenous Peoples to own, control, access, and possess data that derives from them and pertains to their members, knowledge systems, customs, or territories.²⁸ For instance, in Aotearoa New Zealand, AI is being used for language revitalization, with tribal radio stations like Te Hiku Media creating language tools that enable speech recognition and natural language processing of Te Reo Māori.²⁹ Similarly, in Kenya, language tools

²³ <https://pursuit.unimelb.edu.au/articles/the-power-of-indigenous-data>

²⁴ https://www.twn.my/announcement/WIPO%20IGC%20-%20DSI%20%20working%20document_21052024.pdf

²⁵ https://www.twn.my/title2/briefing_papers/twn/ABS%20pathogens%20TWNBP%20Dec2020%20Hammond.pdf

²⁶ <https://www.fao.org/4/i0510e/i0510e.pdf> ; <https://www.cbd.int/abs/text>

²⁷ https://www.twn.my/announcement/WIPO%20IGC%20-%20DSI%20%20working%20document_21052024.pdf

²⁸ https://acola.org/wp-content/uploads/2019/07/acola-ai-input-paper_indigenous-data-sovereignty_walter-kukutai.pdf

²⁹

<https://www.nzherald.co.nz/northern-advocate/news/te-hiku-media-project-teaching-machines-to-speak-te-reo-maori/OXC3RYK7TEAEVVVRSREMNV4RM/>

for Kiswahili have been developed that preserve the authenticity of Indigenous languages, countering its erasure. These examples demonstrate how decentralized data systems can better serve Indigenous Peoples, preserve cultural heritage, and give them meaningful sovereignty.

5. Recommendations

We thus call upon states and multilateral organizations to:

- a) Move beyond openness to a commons-based approach: States and multilateral organisations should support a data commons approach that enables meaningful Indigenous sovereignty over their data.³⁰ Indigenous data should be collected, process and governed in alignment with Indigenous methods and customs,³¹ such that data and intelligence value accrue to Indigenous Peoples.
- b) Develop and invest in Indigenous-origin datasets: To prevent the erosion of attribution and ensure fair benefit-sharing, states should support the development of Indigenous-led repositories that maintain provenance for future applications of Indigenous-sourced data.³² The Institutional Analysis and Development (IAD) framework offers a viable approach by ensuring that data registers are embedded within Indigenous knowledge systems and experiences that give them meaning.³³
- c) Establish multilateral stewardship mechanisms: States and multilateral institutions must develop appropriate data stewardship models. These institutional mechanisms can take various forms, such as data cooperatives, data trusts, and data collaboratives,³⁴ but must ensure that public value from data resources is maximized and accrues to Indigenous Peoples. With particular reference to DSI, this stewardship model must accord primacy to the right of access and benefit-sharing in the use of DSI.
- d) Develop community-based governance frameworks: National policies should focus on establishing community-based stewardship models that enable cultural and economic aspects of Indigenous data to be managed by *sui generis* institutions.³⁵ These benefits must extend beyond financial compensation to encompass the right to benefit from science and innovation, in line with international obligations. This is particularly relevant when DSI or other forms of Indigenous data are shared with external research institutions and scientific bodies.
- e) Adopt social licenses for data use and reuse: Many international regulations fail to capture and attribute data to the data providers. The idea of “social license” can aid in building thriving Indigenous futures since it moves beyond simplistic open data and individual consent approaches to redistribute decision-making power by bridging the trust deficit in data collection and usage.³⁶ The current regulatory gaps—evident in issues like DSI, carbon datafication, and

³⁰ <https://datascience.codata.org/articles/10.5334/dsj-2019-031>

³¹ <https://www.tandfonline.com/doi/full/10.1080/13645579.2018.1531228>

³²

<https://www.unep-wcmc.org/en/news/leading-database-on-conservation-by-indigenous-peoples-and-local-communities-opens-to-public>

³³ <https://itforchange.net/sites/default/files/1673/Data-commons.pdf>

³⁴ <https://itforchange.net/sites/default/files/1741/WP23-Governing-the-Resource-of-Data-AG-NC.pdf>

³⁵ <https://thelocavore.in/2024/08/20/on-chennais-besant-nagar-coast-a-fisherman-makes-sense-of-the-sea/>

³⁶ <https://en.reset.org/social-license-data-building-trust/>

land digitization—reflect a narrow understanding of consent and stakeholder engagement. A social license framework provides a deeper, more inclusive approach, empowering Indigenous Peoples to take a central role in data governance.

f) Build alternatives to dominant intellectual property regimes rooted in self-governance: Dominant intellectual property frameworks, rooted in propertization are ill-equipped to accommodate Indigenous rights. These regimes prioritize individual rights and commodification, disregarding the communal, intergenerational, and relational aspects that define Indigenous knowledge and resources. Instead, self-governance models—designed by, for, and with Indigenous Peoples—offer a more substantive alternative. Grounded in the principle of free, prior, and informed consent, these models ensure that Indigenous Peoples retain meaningful authority over their knowledge systems, fostering frameworks that respect collective rights rather than reducing them to marketable assets.

Signatories:

1. IT for Change
2. Ideosync Media Combine