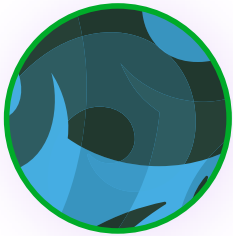


TOOL

Indigenous Knowledge and Data Sovereignty



Working in collaboration and partnership with Indigenous peoples and including Indigenous methodologies, designs and innovations in city building requires that civic leaders learn from and defer to Indigenous knowledges and models when appropriate. Moreover, some projects may require the collection and handling of data on urban Indigenous community members or Indigenous nations. It is therefore really important that municipalities and civic organizations have some baseline understanding of why Indigenous knowledges and information are unique, and why the rights and sovereign powers of each Indigenous nation, organization and individual to self-determine the type of content, use, access and control of to their data.

Civic project and research initiatives and data collection tools that are co-designed in partnership with Indigenous partners, and are reflective and respectful of Indigenous knowledges, community priorities and data sovereignty, can be a way out of colonial-style and appropriative patterns of knowledge transfer. Civic-Indigenous initiatives should always take the lead from Indigenous practitioners and community partners in terms of: their particular experiences and knowledges of placekeeping and city building; their right to decision making and control of their data;

and their priorities and capacities for designing, planning and developing cities of the future that reflect Indigenous knowledges, models and visions for future generations.

Context for decolonizing Indigenous data and asserting Indigenous data sovereignty

The term 'Indigenous knowledges' refers to thousands of complex systems of knowledge, codified forms of communication, and creative and innovative productions that span millennia and regions all over the world. These knowledges are different from many more recent knowledge forms such as information technology and Western science and medicine because they are based on the people's land-based experiential and adaptive learning and experimentation. Indigenous knowledges are also grounded in the sacred and cultural understandings and memory that anchor teachings in particular places and time periods, yet also allow for their relevance across time and space.

While very different from many western and eastern knowledge systems, universally valued skills like critical thinking and problem solving, innovation, creativity, collaboration and communication have been and continue to be the very principles built into commonly held Indigenous values, teachings and technologies. For example, Inuit Qaujimagatuqanigit or the Inuit Way of Knowing, and the seven sacred teachings or Seven Grandfathers of the Anishinaabeg First Nations are core principles and natural laws that encode valuable skills, and guide the many dimensions of a person's life and outline their inherent rights and responsibilities.¹

1- See Tool: First Nations & Inuit Principles for Partnerships.

Data related to health, genetic material, census, land use, housing, migration, education and employment indicators have been collected on Indigenous households and communities by governments, health systems, universities and other institutions for centuries. This data and information has been used and disseminated at the discretion of non-Indigenous institutions and decision-makers, with little to no permissions sought or input from Indigenous leaders or citizens as to how their data should be used. Data gathered on Indigenous peoples (sometimes through unethical means), and its control by external agencies have constituted the majority of research, policy and survey studies on Indigenous peoples – with these data being used historically as a disempowering tool to control populations and gain access to Indigenous lands, natural resources, bodies and knowledges.

As stated by the Alberta First Nations Information Governance Centre (AFNIGC), “[t]he content and purposes of data have historically been determined outside of First Nations communities, and the misuse of data has led to situations of misappropriation and broken trust.”² Externally imposed data collection, analysis and reporting approaches also reinforce systemic oppression, barriers and unequal power relations.³

Much of the information and literature on Indigenous peoples has been written from a colonial settler perspective and informed by strategic agendas that do not reflect the ways that Indigenous peoples understand their own experiences, realities, cultures and priorities. The outcome of many of these settler studies and narratives is a narrow and often stereotypical depiction of Indigenous peoples that has caused inestimable damage for Indigenous Nations in Canada and around the

2- Alberta First Nations Information Governance Centre. (2016). Data Resources and Challenges for First Nations Communities: Document Review and Position Paper.

3 - OpenNorth in collaboration with the British Columbia First Nations Data Governance Initiative. (2017). Decolonizing Data: Indigenous Data Sovereignty Primer.

world. Even many contemporary studies and service programs have a tendency to interpret research on Indigenous peoples through a lens of inherent lack, with a focus on statistics that reflect disadvantage and negative stereotyping.

As sovereign entities, Indigenous Nations have an inherent right to self-determination and self-governance over all aspects of their lives, as recognized under Canadian Law and the UN Declaration on the Rights of Indigenous Peoples (UNDRIP). Although community-level and regional data collection and studies are useful for identifying priorities, setting strategic goals and community planning in areas such as health, land stewardship and governance, education and technology and innovation, research data collected by non-Indigenous institutions have rarely been of value to or aligned with the priorities of Indigenous communities.

The decision-making and leadership of data collection and control should always be with Indigenous Nations and recognized organizations. Data sovereignty and governance are rights that are long overdue to Indigenous Nations and peoples. Advancing First Nations, Inuit and Métis sovereignty over research and data governance is imperative for enhancing the efficacy, impact, and usefulness of Indigenous research for Indigenous peoples. This requires governments and research institutions to partner with First Nations, Inuit and Métis organizations to implement engagement processes that respect the role of Indigenous peoples in decision-making about research involving them and their lands⁴.

4- Inuit Tapiriit Kanatami. (2018). National Inuit Strategy on Research. <https://www.itk.ca/wp-content/uploads/2018/04/ITK_NISR-Report_English_low_res.pdf>

There has been no meaningful nation-to-nation dialogue about data sovereignty or recognition of Indigenous rights to control and protect their research and data, except for the global data sovereignty movement and calls to action by Indigenous institutions. As such, Indigenous Nations, Inuit Tapiriit Kanatami, and community-driven, non-profit organizations like the AFNIGC, the First Nations Technology Council (FNTC) in British Columbia, and the national-level First Nations Information Governance Centre (FNIGC) are working to assert the rights of First Nations, Métis and Inuit to data sovereignty and to protect and determine the use of their knowledges and information for the benefit of their respective nations.

Indigenous Data Sovereignty

Data sovereignty is actually an ancient concept across diverse Indigenous cultures. As sovereign nations with long-evolved governance structures, Indigenous societies have been collecting, storing, passing on or disseminating and governing knowledge forms and data (at individual and collective levels) for many generations i.e. through various forms of treaty telling and oral storytelling. However, traditional knowledge and data systems are often not honoured by settler governments and institutions.

Although archived (individual and collective memory) and disseminated in the oral tradition for thousands of years until recent times, Indigenous knowledges and information have been traditionally governed in a similar way to contemporary forms of data governance.

They have been recorded, stored, analyzed, and shared, with their value measured according to indicators and metrics decided upon and defined by knowledge-keepers and community members with particular subject expertise.

Contemporary data sovereignty involves ownership and control by a community or institution over the design and collection of data, sharing capabilities, limiting access, security practices, and encryption of data. As such, Indigenous data sovereignty is exercised through interrelated processes of Indigenous data governance and decolonizing data. Principles of Indigenous data sovereignty include⁵:

- Indigenous peoples have the power to determine who should be counted among them;
- Data sovereignty for Indigenous peoples must reflect the interests and priorities of Indigenous peoples;
- Communities must not only dictate the content of data collected about them, but also have the power to determine who has access to these data;
- There will be different approaches to data sovereignty across Nations. Nations themselves need to define their data parameters, how it gets protected and how they wish to tell their story historically, today, and into the future;
- There needs to be investment in community-driven, Nation-based institutions to manage the transition back to self-government. This includes establishing resources for further capacity building in Indigenous' compilation of data and development of use of information.

5 - Principles from: Kukutai, T. and Taylor, J. (eds.) (2016). *Indigenous Data Sovereignty: Toward an agenda*. ANU Press.

Seen in: OpenNorth in collaboration with the British Columbia First Nations Data Governance Initiative. (2017). *Decolonizing Data: Indigenous Data Sovereignty Primer*.

Indigenous Data Governance

Data governance is the system of decision making rights and accountabilities by an Indigenous government or institution for information-related processes, executed according to agreed-upon models which describe who can take what actions with what information, and when, under what circumstances, using what methods.⁶

- Key issues of data governance include ownership, accessibility, possession, data quality/integrity, security, and privacy.
- Each Indigenous Nation governs and protects all their data and information, wherever it resides (internal or external agencies), supporting the needs of the Nation, communities, Indigenous organizations, and members, as well as the needs of the partners they collaborate with.
- Including processes that ensure access to Nation Data is enabled in a secure and protective manner regardless of where it is stored; policies and procedures regarding the collection and use of Nation Data, and mechanisms to monitor compliance with these policies and procedures.
- Nation data stored within the Nation is considered owned by the Nation and stewarded using a data governance Framework.
- All undertakings and publications that involve identifiable Nation Data must be culturally appropriate and benefit the well being of the Nation.
- Data governance is aligned to nation sovereignty and nation re-building priorities and the pursuit of self-government.

⁶ - Mustimuhw Information Solutions Inc. (2015). Data Governance Framework: Framework and Associated Tools.

An integral aspect of attempting to equalize broadband and digital capacity has been the development of policy frameworks by First Nations, Métis and Inuit governments that can support and drive data sovereignty and governance. Examples of national and international principles to protect Indigenous rights to data sovereignty and governance: OCAP® Principles for First Nations across Canada; CARE Principles (aligned with UNDRIP articles) for Indigenous peoples in global contexts; and the Maori Data Sovereignty Network Charter from Aotearoa (New Zealand).

As a political and decolonizing response to the role of knowledge production in reproducing colonial relations within the Canadian settler state, the OCAP®⁷ principles emerged as a de facto standard for conducting research on First Nations communities and explicitly outlines the right of each Nation to govern the collection, ownership, application and custodianship of its data.⁸

In a similar vein to OCAP®, many Inuit communities and organizations in Canada are also adopting their own principles and data sovereignty policies to govern research and data collection initiated by external entities. Indigenous data sovereignty and governance is an immensely important consideration for the CSN program, particularly as it relates to the concept of open data and OpenNorth's open smart cities advisory services delivery model.

⁷ - OCAP® is a registered trademark of the First Nations Information Governance Centre (www.FNIGC.ca/OCAP)

⁸ - First Nations Information Governance Centre. Ownership, Control, Access and Possession (OCAP): The Path to First Nations Information Governance. March 2013. Ottawa: The First Nations Information Governance Centre.

OCAP® (Ownership, Control, Access and Possession) Principles⁹

- **Ownership:** First Nations communities have ownership over their own information and cultural knowledge.
- **Control:** First Nations communities have control over how their information is used or accessed-and must be consulted and give informed consent to all stages of the program.
- **Access:** First Nations communities must have access to their own information and ultimately decide on the group and individual access rights based on cultural needs and protocols.
- **Possession:** First Nations communities are stewards of their own information and data and responsible for its security.

CARE (Collective benefit, Authority to control, Responsibility and Ethics) Principles¹⁰

- **Collective benefit:** Data ecosystems shall be designed and function in ways that enable Indigenous Peoples to derive benefit from the data:
 - For inclusive development and innovation
 - For improved governance and citizen engagement
 - For equitable outcomes

9 - OCAP® is a registered trademark of the First Nations Information Governance Centre <www.FNIGC.ca/OCAP>. The First Nations Information Governance Centre. Ownership, Control, Access and Possession (OCAP): The Path to First Nations Information Governance. March 2013. Ottawa: The First Nations Information Governance Centre

10 - CARE Principles for Indigenous Data Governance <<https://www.gida-global.org/care>>

- **Authority to control:** Indigenous Peoples' rights and interests in Indigenous data must be recognized and their authority to control such data respected.
 - Recognizing rights and interests
 - Data for governance
 - Governance of data
- **Responsibility:** There is the responsibility to be accountable on how data is being used. Accountability requires meaningful and openly available evidence of these efforts and the benefits accruing to Indigenous Peoples.
 - For positive relationships
 - For expanding capability and capacity
 - For Indigenous languages and worldviews
- **Ethics:** Indigenous Peoples' rights and wellbeing should be the primary concern at all stages of the data life cycle and across the data ecosystem.
 - For minimizing harm and maximizing benefit
 - For justice
 - For future use