CARE Principles for Indigenous Data Governance

The increasing convergence of technology infrastructure and digital connectivity has raised the value of data across the globe.

Whether existing knowledge is digitised or new data are 'born digital', the impact they have on decision-making, allocation of resources, and innovation is significant. Data have important implications for Indigenous Peoples' ability to exercise their individual and collective rights to self-determination. Indigenous Peoples are often excluded from decision-making fora and their knowledge when such knowledge exists only as part of an oral tradition. The UN Declaration on the Rights of Indigenous Peoples (UNDRIP) reaffirms Indigenous rights to self-governance and authority to control their Indigenous cultural heritage embedded in their languages, knowledge, practices, technologies, natural resources, and territories (i.e., Indigenous data). Indigenous data, which include data collected by governments and institutions about Indigenous Peoples and their territories, are intrinsic to Indigenous Peoples' capacity and capability to realise their human rights and responsibilities to all of creation.

Indigenous data sovereignty reinforces the rights to engage in decision-making in accordance with Indigenous values and collective interests.

The current movement toward open data and open science does not fully engage with Indigenous Peoples' rights and interests. Existing principles within the open data movement (e.g. FAIR: findable, accessible, interoperable, reusable) primarily focus on characteristics of data that will facilitate increased data sharing among entities while ignoring power differentials and historical contexts. The emphasis on greater data sharing alone creates a tension for Indigenous Peoples who are also asserting greater control over the application and use of Indigenous data and Indigenous Knowledge for collective benefit.

Be **FAIR**
Findable   Accessible   Interoperable   Reusable

and

CARE
Collective Benefit   Authority to Control   Responsibility   Ethics

This includes the right to create value from Indigenous data in ways that are grounded in Indigenous worldviews and realise opportunities within the knowledge economy. The CARE Principles for Indigenous Data Governance are people and purpose-oriented, reflecting the crucial role of data in advancing Indigenous innovation and self-determination. These principles complement the existing FAIR principles (www.go-fair.org) encouraging open and other data movements to consider both people and purpose in their advocacy and pursuits.

The CARE Principles

Collective Benefit

Data ecosystems shall be designed and function in ways that enable Indigenous Peoples to derive benefit from the data.

C1
For inclusive development and innovation

Governments and institutions must actively support the use and reuse of data by Indigenous nations and communities by facilitating the establishment of the foundations for Indigenous innovation, value generation, and the promotion of local self-determined development processes.

C2
For improved governance and citizen engagement

Data enrich the planning, implementation, and evaluation processes that support the service and policy needs of Indigenous communities. Data also enable better engagement between citizens, institutions, and governments to improve decision-making. Ethical use of open data has the capacity to improve transparency and decision-making by providing Indigenous nations and communities with a better understanding of their peoples, territories, and resources. It similarly can provide greater insight into third-party policies and programs affecting Indigenous Peoples.

C3
For equitable outcomes

Indigenous data are grounded in community values, which extend to society at large. Any value created from Indigenous data should benefit Indigenous communities in an equitable manner and contribute to Indigenous aspirations for wellbeing.

Authority to Control

Indigenous Peoples' rights and interests in Indigenous data must be recognised and their authority to control such data be empowered. Indigenous data governance enables Indigenous Peoples and governing bodies to determine how Indigenous Peoples, as well as Indigenous lands, territories, resources, knowledges and geographical indicators, are represented and identified within data.

A1
Recognizing rights and interests

Indigenous Peoples have rights and interests in both Indigenous Knowledge and Indigenous data. Indigenous Peoples have collective and individual rights to free, prior, and informed consent in the collection and use of such data, including the development of data policies and protocols for collection.

A2
Data for governance

Indigenous Peoples have the right to data that are relevant to their world views and empower self-determination and effective self-governance. Indigenous data must be made available and accessible to Indigenous nations and communities in order to support Indigenous governance.

A3
Governance of data

Indigenous Peoples have the right to develop cultural governance protocols for Indigenous data and be active leaders in the stewardship of, and access to, Indigenous data especially in the context of Indigenous Knowledge.

Responsibility

Those working with Indigenous data have a responsibility to share how those data are used to support Indigenous Peoples' self-determination and collective benefit. Accountability requires meaningful and openly available evidence of these efforts and the benefits accruing to Indigenous Peoples.

R1
For positive relationships

Indigenous data use is unviable unless linked to relationships built on respect, reciprocity, trust, and mutual understanding, as defined by the Indigenous Peoples to whom those data relate. Those working with Indigenous data are responsible for ensuring that the creation, interpretation, and use of those data uphold, or are respectful of, the dignity of Indigenous nations and communities.

R2
For expanding capability and capacity

Use of Indigenous data invokes a reciprocal responsibility to enhance data literacy within Indigenous communities and to support the development of an Indigenous data workforce and digital infrastructure to enable the creation, collection, management, security, governance, and application of data.

R3
For Indigenous languages and worldviews

Resources must be provided to generate data grounded in the languages, worldviews, and lived experiences (including values and principles) of Indigenous Peoples.

Ethics

Indigenous Peoples' rights and wellbeing should be the primary concern at all stages of the data life cycle and across the data ecosystem.

E1
For minimizing harm and maximizing benefit

Ethical data are data that do not stigmatize or portray Indigenous Peoples, cultures, or knowledges in terms of deficit. Ethical data are collected and used in ways that align with Indigenous ethical frameworks and with rights affirmed in UNDRIP. Assessing ethical benefits and harms should be done from the perspective of the Indigenous Peoples, nations, or communities to whom the data relate.

E2
For justice

Ethical processes address imbalances in power, resources, and how these affect the expression of Indigenous rights and human rights. Ethical processes must include representation from relevant Indigenous communities.

E3
For future use

Data governance should take into account the potential future use and future harm based on ethical frameworks grounded in the values and principles of the relevant Indigenous community. Metadata should acknowledge the provenance and purpose and any limitations or obligations in secondary use inclusive of issues of consent.