Nindokiikayencikewin: to seek learning or Knowledges
Indigenous Knowledges & Data Governance Protocol
COMMUNITY AUTHORS & LEARNING

This Protocol is based on a comprehensive literature review and the Knowledges and teachings from the following Elders and Knowledge Keepers from across Canada:

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**Marissa Hill** wrote and prepared this Protocol, in partnership with these community authors; **Becca Smith** and **Kristin Neudorf** (Grand Challenges Canada); and **Sara Wolfe** (Indigenous Innovation Initiative). All images are drawn by **Jeska Slater**, a Nehiyaw Iskwew (Cree woman) and graphic facilitator. This Protocol is a living being that was brought to life and named through ceremony, and that will evolve as we learn and grow.

In the spirit of reciprocity and learning, we invite you to adapt, build upon, copy and/or share this Protocol to support your own work, if you:

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- Share your work back with us (info@indigenousinnovate.org), and make it openly available to others using this same license

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**Note**: The term “Knowledge Keeper” is used throughout this document. Sometimes this is referring to traditional Knowledge Keepers within First Nation, Inuit and Metis communities. Sometimes this is used instead of the term Knowledge “owner,” which inappropriately implies ownership of Knowledges. In this instance, this term is not intended to replace or reduce the sacred role of traditional Knowledge Keepers.
This Protocol was developed through and is guided by shared First Nation, Inuit and Metis Values and Principles related to Indigenous Knowledges creation and application. To honour these Values and Principles and the sacred role of this Protocol, its spirit has been brought to life and given a name through ceremony. To honour the life and sacredness of this Protocol, it will be cared for based on these shared Values and Principles and through ceremony.

The sacred name of this Protocol is Nindokiikayencikewin (pronounced Nin-do-ki-ka-en-ji-gae-win), which means to seek learning or Knowledges in Anishinaabemowin (Ojibway). The images in this Protocol were created during this ceremony, and are specific to its purpose and name.
We understand that supporting Indigenous innovation is about more than just increasing access to capital – it requires culturally rooted wrap-around support for innovators to unlock their fullest potential, and re-conceptualizing what innovation looks like within an Indigenous context.

Innovation isn’t always about creating new things. Innovation sometimes involves looking back to our old ways and bringing them forward to this new situation.

The Honourable Murray Sinclair, 2015 Indigenous Innovation Summit

Through core values of inclusion, self-determination, sustainability and creativity, we use a gender-lens approach for investment to support First Nation, Inuit and Metis Peoples to develop and test innovative ideas that re-inspire healing, imagination and opportunity for their communities, while also benefitting non-Indigenous people and the Land.

Learn more about the Indigenous Innovation Initiative here.
ABOUT THIS PROTOCOL

There is currently a growing global effort to reclaim the inherent rights of Indigenous Peoples to steward and protect their Knowledges and data, as supported by the United Nations’ Declaration on the Rights of Indigenous Peoples and as endorsed by the Special Rapporteur on the right to privacy which has an increased focus on open data and the 1996 Report on the Royal Commission on Aboriginal Peoples (see appendix for examples). As part of this reclamation, and to support the well-being of the innovators and communities that the Indigenous Innovation Initiative supports, we are committed to creating, collecting, interpreting, applying, storing and sharing (or "collecting and using") Indigenous Knowledges and data in a way that honours and respects local First Nation, Inuit and Metis governance practices.

To help us do that, this Protocol outlines the approach that the Indigenous Innovation Initiative follows when collecting and using Indigenous Knowledges and data. This Protocol can also provide a model for approaches to Indigenous Knowledges and data governance at the community, funder and ecosystem more broadly. Through this, the goal of this Protocol is to rebalance power and revitalize the capacity of innovators and their communities to steward their own Knowledges and data, including cultural expression and intellectual property. By "privileging and centering (Rowe, Kirkpatrick & Smirl, 2018)" First Nation, Inuit and Metis ways of knowing and being, this Protocol also intends to re-assert inherent rights to self-determination, which is critical for the healing and sovereignty of the Indigenous Innovation Initiative and the people and communities we support.
Worldviews guide how people interpret and navigate the world, and what they know their reality to be. Western and Indigenous Worldviews "...are very different in terms of the ways in which people come to know and the ways in which knowledge or understanding is shared..." (Ermine, Sinclair & Browne, 2005). Western Worldviews are generally based on the belief that people live in one reality (or their physical environment) and that they can only gain knowledge by exploring that one reality.

This reinforces that knowledge is power and people are responsible for understanding as much of this one reality as possible, through formal and controlled observation and experimentation (or the Western scientific process) - this creates abstract knowledge or "evidence" that is specific to this controlled environment, but that is generalized and adopted across other contexts in reality and most often used to alter those environments to benefit people. This also reinforces that any type of knowledge created outside of these mainstream processes is less valid or should not be considered valid (which is often the case for Indigenous Knowledges).
Quite differently, First Nation, Inuit and Metis Worldviews are rooted in experiences and relationships within two realities: the Land and Spirit World. Due to unique local contexts, these experiences and relationships vary across communities and there are many similar yet distinct Indigenous Worldviews globally. Through a shared focus on all of Creation being interdependent through a dynamic and evolving ecosystem, Indigenous Worldviews are considered relational and reciprocal and teach people to explore the Land and Spirit World to learn how to live in harmony with all of Creation - to first benefit the Land, while supporting the well-being and sustainability of the community. The Knowledges created through this exploration are also relational and reciprocal, and each person is responsible for sharing and applying them for the betterment of their relationships within all of Creation and not to keep them for personal gain or interest.

There are many truths and Indigenous Knowledges creation processes do not need validation from another Worldview or context to be considered valid - they “take ultimate authority and validation from [Indigenous] traditions and protocols for knowledge production and transfer,” and Western ways of knowing and being should not be imposed on Indigenous Knowledges creation processes (Ermine, Sinclair & Browne, 2005). This reinforces the importance of interpreting and applying Indigenous Knowledges through the local realities they come from and not generalizing Knowledges across different contexts unless it is appropriate to do so.
Whether or not they are defined or well-known, each Worldview is supported by an ethical code that guides the ways of knowing and being for anyone who holds this Worldview - this sustains Worldviews by bringing them to life. Within First Nation, Inuit and Metis Worldviews, various Values, Principles, Natural and Communal Laws and Protocols outline expectations that people are expected to follow, to guide how they come into relationship with all of Creation. These expectations also apply to non-living beings, including this Protocol which is guided by shared First Nation, Inuit and Metis Values and Principles related to Indigenous Knowledges creation and application (which are summarized below).

Through this interconnection of Worldviews, Values and Principles, First Nation, Inuit and Metis Peoples have different understandings of what Knowledges are - this is why the plural form of 'knowledge' is used to describe them here. Despite these differences, Indigenous Knowledges are generally described as being moral in nature, to teach people how to live a good life that respects their place within all of Creation. This includes supporting a person's lifelong journey of coming to be, by helping them learn what their gifts are and how to use them to support the betterment of their relationships and community.
Being **land-based** and **place-based**, Indigenous Knowledges are created through long-term interaction with the Land and Spirit World, and are specific to a place and to a group of people. Through this, Indigenous Knowledges inherently **incorporate all aspects of local life**, including languages, Natural and Communal Laws, Protocols, histories and how to complete everyday activities like harvesting or hunting - this is why they play a **critical role in community well-being and survival**.

This is supported by the timeless and oral nature of Indigenous Knowledges, where they have been gathered and have endured since time immemorial, and will continue to evolve and be passed on to future generations through language, stories, songs and legends. To honour this sacred role and critical importance, the word Knowledges is capitalized within this Protocol.

**“How are Indigenous Knowledges learned?”**

In general, Indigenous Knowledges are learned in three ways:

- **Traditional or Cultural Knowledges** are passed down through storytelling, mostly from Elders and traditional Knowledge Keepers, to establish and reinforce Values, Principles, Natural and Communal Laws and Protocols within a community.

- **Empirical Knowledges** are gathered through hands-on and often land-based observation or experience, and help people learn new and better ways of doing things through an action-oriented process of simultaneously creating and applying learnings (similar to the Western scientific process).

- **Revealed, Ancestral or Spiritual Knowledges** are received through interactions with the Spirit World, for example through ceremony, dreams or visions. These Knowledges are highly personal and relative to each person, and require dedicated time and space to look inward and connect with the ancestral energy and spirit of all of Creation. These Knowledges are sacred and must be cared for using established Protocols.
In general, data are any quantitative or qualitative information about a specific topic that are collected through observation, surveys and reporting. For the purpose of this Protocol, Indigenous data is any information that is from or about any Indigenous person or their community, territory or nation, including but not limited to their languages, Knowledges, customs or traditions, intellectual property and ideas. Indigenous data are also relational and reciprocal, and need to reflect and be held by the community as a collective, and are equally as important to pass down through generations as a part of lifelong journeys of coming to be.

In Canada, most Indigenous data are collected from or about First Nation, Inuit and Metis Peoples to support government planning and decision making, for example through the federal census or health surveys or to comply with government funding agreements. A lot of Indigenous data are also collected by non-Indigenous researchers who live and work outside of the communities they are researching. Very importantly, Indigenous data are collected for and by First Nation, Inuit and Metis Peoples to support planning and development activities within their own communities. This supports the sustainability and evolution of each community.

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* We use the term “lived experience leaders” as inspired by the Clan Mothers Healing Village in Manitoba
"Why do Indigenous Knowledges and data need to be protected?"

Through centuries of colonization, oppression and undermining of First Nation, Inuit and Metis Worldviews and Peoples, they continue to face challenges with collection and use of their Knowledges and data. This includes the following examples:

- **Appropriation**: Indigenous Knowledges or data are applied in non-Indigenous contexts without consent, and misrepresent or mock Indigenous ways of knowing and being.
- **Misrepresentation**: The health status of Indigenous Peoples is misrepresented through data that focus on Western concepts of well-being, often excluding spiritual, emotional and mental well-being that comes from access to ceremonies, traditional medicine and languages, community and other non-physical components of well-being. Indigenous data that is used out of context also perpetuates false stereotypes about Indigenous Peoples.
- **Lack of transparency**: Indigenous Knowledges or data are used without consent or in ways that are not consented to or known about.
- **Lack of reciprocity**: Indigenous Knowledges or data are not shared back with the community or Knowledge Keepers.
- **Lack of stewardship**: Indigenous Knowledges or data are stored in databases that communities and Knowledge Keepers do not have control of or access to.
- **Aggregate data**: Indigenous Knowledges or data are only made available in an aggregate way which can misclassify or combine information about First Nation, Inuit and Metis Peoples, making it impossible for them to use their own information and misrepresenting them as homogenous which can erase unique histories and ways of knowing and being.
- **Legislation**: Indigenous Knowledges or data collected by publicly-funded work is property of the government and can be made public through privacy, access and archival laws without consent. As well, once a non-Indigenous person receives rights to use Indigenous Knowledges, terminology, intellectual property etc., for example as the name of a product, this information no longer belongs to or can be protected by Indigenous Peoples.
- **Patriarchy**: Patriarchal systems have replaced traditional governance systems in many communities, and the traditional role of women, Two Spirit, queer, trans and gender diverse people as leaders and decision makers has been threatened or lost entirely.
- **Imposition**: Data collection requirements are imposed on communities through funding agreements, and the resulting data are not relevant to or mutually supportive of their planning and decision-making needs.
These experiences continue to result in large-scale mistrust among First Nation, Inuit and Metis communities and Peoples about why and how their Knowledges and data are collected and used. Until policies like the **United Nations' Declaration on the Rights of Indigenous Peoples** are fully implemented in Canada and First Nation, Inuit and Metis communities and Peoples have re-established their Knowledges and data sovereignty, they will continue to experience these challenges. This includes the right “to determine the means of collection, access, analysis, interpretation, management, dissemination and reuse of data pertaining to the Indigenous Peoples from whom it has been derived, or to whom it relates (Walter & Suina, 2019).

Data sovereignty is not just about of First Nation, Inuit and Metis Peoples stewarding their own Knowledges and data - it is about improving their capacity and well-being through meaningful, self-determined and self-governed processes that support their visions and sustainability as communities. Data sovereignty is also about empowering First Nation, Inuit and Metis communities to choose when and how to allow others to reciprocally apply their Knowledges and data in ways that benefit non-Indigenous people - for example, applying Indigenous environmental stewardship practices more broadly.

To support this, many non-Indigenous allies are adopting policies or approaches that allow for the collection and use of Indigenous Knowledges and data in a way that re-establishes self-determination and self-governance within First Nation, Inuit and Metis communities while creating information that mutually supports everyone involved. This Protocol is an important tool to support this allyship.
COLLECTING & USING INDIGENOUS KNOWLEDGES & DATA

To promote inherent rights to self-determination and self-governance for First Nation, Inuit and Metis Peoples, a mixture of Protocols, policies and guidelines are in place across the world - these are outlined in more detail in the appendix and have all been used to inform this Protocol. The shared purpose of these practices is to collect and use Indigenous Knowledges and data in a way that maximizes benefit for, and minimizes harm to, First Nation, Inuit and Metis communities while re-establishing and maintaining their Knowledges and data sovereignty. This is key to resolving the long-standing challenges faced by First Nation, Inuit and Metis Peoples by respecting their inherent rights to:

- Free, prior, ongoing and informed consent, and to accept or decline sharing any or all Knowledges or data based on the risks and benefits of doing so
- Self-determination, including full participation or leadership in all aspects of the processes used to collect and use their Knowledges or data
- Maintain ownership of, integrity of and access to any Knowledges or data they share or that are collected from or about them, including intellectual property
- Choose how to be acknowledged when their Knowledges or data are used
- Meaningfully benefit from the collection and use of their Knowledges or data
The Indigenous Innovation Initiative creates and collects Indigenous Knowledges and data with and from innovators, community members and other partners mainly through engagements and inquiry and learning activities. We use this information to inform impact measurement and storytelling, planning and decision-making and development of knowledge products that share learnings and impact back with communities. The Protocols that the Indigenous Innovation Initiative follow when collecting and using this information are defined below - we will follow these Protocols to the best of our abilities, considering the accountabilities we have.

"What are Protocols?"

Protocols are passed down through culture and language and allow First Nation, Inuit and Metis Peoples to make decisions and behave in ways that align to their ways of knowing and being.

Protocols are critical to collecting and using Indigenous Knowledges and data, especially sacred information, and are self-determined by each community and/or Knowledge Keeper. Protocols ensure the right people receive the right Knowledges, and that sacred information is cared for in the right way.

Following Protocol starts with respect - "respect for oneself, towards one another and respect of territory that you are living on and practicing in or visiting (First Peoples Cultural Council, 2015)."
When creating or collecting Indigenous Knowledges or data, we will:

- Establish meaningful relationships with language speakers, Elders, Knowledge Keepers and those responsible for Knowledges and data governance
- Ensure free, prior, informed and ongoing consent is received from all required people, using processes that are in local languages and that provide time for people to consider the risks and benefits of sharing their Knowledges or data
- Honour requests to stop or change what we are collecting, how, when or why
- Engage in additional written or verbal agreements or commitments, if requested, to outline other Protocols to be followed
- Collect relevant information that mutually benefits the Indigenous Innovation Initiative and the community, using approaches that are rooted in local Values, Principles, Natural and Common Laws and Protocols and that protect privacy
- Engage inclusively and diversely, including women, men, Two Spirit, queer, trans and gender diverse youth, Elders, Knowledge Keepers and lived experience leaders
- Have Knowledge Keepers participate in or lead this work, including developing and implementing the methods or tools that will be used to create or collect Indigenous Knowledges and data
- Have open lines of communication and share this information back with the community quickly and in a way that is most accessible and useful
- Provide respectful honoraria and/or financial support, for example for travel, food or childcare, to respect and honour this exchange, local expertise and the time and effort required to follow local Protocols
- Continually re-invest any financial or other benefits that we receive because of the Knowledges or data that we create or collect, back into the communities we support through the projects and programs that we fund

When interpreting Indigenous Knowledges and data, we will:

- Do this in partnership with the Knowledge Keepers to ensure information is interpreted within the appropriate context and so they learn how to understand their own Knowledges and data, which is part of responsible stewardship
- Be flexible to differences in how this information is interpreted, by empowering Knowledge Keepers to resolve these differences while being mindful that resolution is not always required and that various interpretations can be shared
When applying learnings, we will:

- Do this in partnership with the Knowledge Keepers so learnings are useful and relevant, and prioritize supporting the needs of the community while mutually supporting the needs of the Indigenous Innovation Initiative.

- Co-create knowledge products that are:
  - Shared back quickly with Knowledge Keepers and their communities, and made available more broadly where appropriate.
  - Easy to use and share, for example being available online, by email or by mail or put into a format that is most relevant and in relevant languages.
  - Presenting findings in a way that reflects the unique history, experiences and visions of the Knowledge Keepers and their communities.
  - Presenting First Nation, Inuit and Metis information as unique and separate, as opposed to aggregate or generalized across these diverse communities, unless it is most appropriate or we are requested to do so (for example, to protect privacy of individuals or communities if the sample size is too small).

- Respond with humility when the community does not approve of any analysis, knowledge products etc. that have been created and work quickly and collaboratively to resolve any issues.

- Recognize communities and Knowledge Keepers as per their wishes.
When sharing Indigenous Knowledges or data, we will:

- Do this in partnership with the Knowledge Keepers and their communities and following the terms of consent
- Request ongoing consent from Knowledge Keepers for any new ways we would like to use or share this information
- Share this information using secure mechanisms that ensure it is being received by the right people

When storing Indigenous Knowledges and data, we will:

- Honour requests to change where and how this information is being used or stored, including making it private or confidential, delete it from our databases or interpret or share it in different ways
- Support Knowledge Keepers to be stewards of their own information, which could include storing it within their communities or storing within the Indigenous Innovation Initiative while having them maintain ownership and control of it

Want to learn more? Visit the Indigenous Innovation Initiative [website](#) and follow us online to learn about new resources and stories about the impact of innovation by and for First Nation, Inuit and Metis Peoples.
First Nations governance practices in Canada:

- First Nations Information Governance Centre developed the **First Nations Principles of OCAP©**. These are the most widely cited and used Protocols for Knowledges and data governance within a First Nation context, and promote Indigenous data sovereignty as "the cornerstone of nation-building" (First Nations Information Governance Centre, 2019).
- Kirkness & Barnhardt (2001) developed the **4 R’s of First Nations Education**. Although specific to education, they are important as it relates to learning Indigenous Knowledges.
- Assembly of First Nations drafted a **framework** to outline principles that build off of the First Nations Principles of OCAP©

Inuit governance practices in Canada:

- Inuit Tuttarvingat developed five Inuit research principles (Riddell, et.al, 2017; Nickels & Knotsch, 2011): respect for language and knowledge, empowerment of the community, mutually beneficial research that increases positive outcomes in the community, Knowledges sharing between researchers and community and respect for animals. Inuit Nipingit National Inuit Committee on Ethics and Research developed **guidelines** to support these principles through research.

APPENDIX

To promote inherent rights to self-determination and self-governance for First Nation, Inuit and Metis Peoples, a mixture of Protocols, policies and guidelines are in place across the world - some of these are outlined below and have all been used to inform this Protocol. We will continue to evolve this Protocol as we learn more about these and other practices.
Metis governance practices in Canada:

- Some Metis communities follow the "OCAS" Principles (ownership, control, access and stewardship)
- Metis Centre at the National Aboriginal Health Organization developed the Principles of Ethical Metis Research

Urban Indigenous governance practices in Canada:

- Ontario Federation of Indigenous Friendship Centres developed the Utility, Self-Voicing, Access and Inter-Relationality (USAI) Research Framework
- National Association of Friendship Centres' Urban Aboriginal Knowledge Network used both the OCAP© Principles and the USAI Research Framework to inform its Guiding Ethical Principles

Other Indigenous governance practices in Canada:

- 4 R's model from the Canada Council for the Arts supports Knowledges governance within the arts by honouring (First Peoples' Cultural Council, 2015)

Indigenous governance practices outside of Canada:

- National Congress of American Indians developed the 'Walk Softly and Listen Carefully' Building Research Relationships with Tribal Communities and passed the Support of US Indigenous Data Sovereignty and Inclusion of Tribes in the Development of Tribal Data Governance Principles resolution, the "first collective action and statement in the US to support tribes to exercise Indigenous data sovereignty and governance, the efforts to advocate for and provide research on Indigenous data sovereignty and support the inclusion of tribes in the development of any broad principles of tribal data sovereignty and governance (Russo Carroll, Rodriguez-Lonebear & Martinez, 2019)
- United States Indigenous Data Sovereignty Network developed Principles of Indigenous Data Sovereignty
International Indigenous Data Sovereignty Interest Group (within the Research Data Alliance) developed the CARE Principles for Indigenous data governance.

Te Tiriti Working Group developed the Treaty of Waitangi/Te Tiriti and Maori Ethics Guidelines for: AI, Algorithms, Data and IOT.

Te Mana Raraunga developed Principles of Maori Data Sovereignty and the Māori Data Sovereignty Network Charter.

Australian Institute of Aboriginal and Torres Strait Islander Studies developed the Code of Ethics for Aboriginal and Torres Strait Islander Research.

Non-Indigenous-led Indigenous governance practices:

- Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada and Social Sciences and Humanities Research Council of Canada developed the Tri-Council Policy Statement on Ethical Conduct for Research Involving Humans which includes research with Indigenous Peoples.

- Government of Australia developed the National Statement on Ethical Conduct in Human Research which includes research with Indigenous Peoples, and the Ethical conduct in research with Aboriginal and Torres Strait Islander Peoples and communities.


REFERENCES


We are grateful to live and work on Dish With One Spoon Treaty territory, the traditional territory of the Mississaugas of the Credit, the Anishnaawbe, the Huron-Wendat and the Haudenosaunee, and which continues to be a gathering place for people from many nations.