Legal and Technological Frameworks for the Digital Collection and Sharing of Inuit Knowledge

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Some background/context

- Collaboration with Geomatics and Cartographic Research Centre (Carleton U.) to develop a legal and normative framework for the incorporation of TK in cybercartography and polar data repositories
 - GCRC digital atlases of Northern regions that incorporate Inuit traditional knowledge in collaboration with Inuit communities
 - GCRC development of theory and practice relating to the incorporation of traditional knowledge in cybercartography
 - Collaboration between GCRC & Centre for Law, Technology and Society (CLTS) around legal and licensing dimensions of digital data sharing
- More recently part of Canadian Consortium for Arctic Data Interoperability (CCADI)
 - Arctic data sharing infrastructure in partnership with Inuit and with a goal to "Empower Inuit communities to address their data priorities"

Broader context

- Inuit Tapiriit Kanatami Submission to the Naylor Panel for Canada's Fundamental Science Review (December 2016), https://www.itk.ca/itk-sumbission-to-the-naylor-panel-for-canadas-fundamental-science-review/
- National Inuit Strategy on Research (NISR), 2018: https://www.itk.ca/wp-content/uploads/2018/03/National-Inuit-Strategy-on-Research.pdf

Exploitation of Traditional Knowledge (TK)

- History of use of TK is fraught with examples of misuse and exploitation
- This may include
 - Using TK to further only the researcher's own goals
 - Commercial exploitation of the TK without permission, acknowledgement or compensation
 - Use of the information for negative or harmful purposes

Protecting Inuit Knowledge

- Inuit knowledge (IK) relating to communities and culture, geography, Northern flora and fauna, climate, resources, history, etc is highly sought after
- Research ethics and licensing frameworks for research set parameters for ethical data collection and sharing, but:
 - Digital dissemination and archiving creates particular issues
 - IP laws are often unhelpful and/or misunderstood
 - Not all research is carried out within these frameworks

NISR

"Strong public policies, informed by the best available evidence, can support optimal outcomes for Inuit that in turn benefit all Canadians. However, colonial approaches to research endure in Canada that prevent Inuit from making decisions about research activity in our homeland, such as setting the research agenda, monitoring compliance with guidelines for ethical research, and determining how data and information about our people, wildlife, and environment is collected, stored, used, and shared. In this time of reconciliation, research governance bodies, policies, and practices must be transformed to respect Inuit selfdetermination in Inuit Nunangat research."

NISR - Priority Area 4: Ensure Inuit access, ownership, and control over data and information

Objectives

- Advance Inuit self-determination in collecting, verifying, analyzing, and disseminating Inuit-specific data and information
- Invest in Inuit-led data and information technology and infrastructure
- Ensure ownership of Inuit data by Inuit-appointed entities
- Utilization of Inuktut (the Inuit language) in data platforms and information management

Actions

- 4.1 Advocate for the consistent production and sharing of Inuit-specific and Inuit-relevant indicators and data, including the Inuit Health Survey
- 4.2 Invest in culturally-relevant, community-based technology to facilitate access to and management of data and information
- 4.3 <u>Develop Inuit-specific guidelines on data accessibility, ownership, and control</u>
- 4.4 <u>Create and invest in digital Inuit Nunangat data repositories that are inclusive of Inuit knowledge in ways that are respectful of its distinctive forms as well as the Inuit norms that govern its use and sharing</u>

Legal infrastructure

- Because legal systems are culturally-based, legal infrastructure is a culturally-specific aspect of a data repository or online information service
- Legal infrastructure includes rules regarding ownership of intellectual property
- IP rules facilitate control over use and dissemination of "works" included in the data repository

IP and Knowledge Repositories

- Rules of IP contribute to structure and functioning of knowledge repositories
 - Identification of "authorship" enables determination of existence and location of rights
 - IP frameworks allow for rights to be transferable; rights are located with a particular 'owner", making rights clearance easier
 - Attribution is typically given to "authors"

Access to and use of information in data repositories

- Open access/open data are values that support unrestricted sharing and use of information resources
- But open access/open data may not be best models for Inuit Knowledge
- These licensing models may contribute to exploitation or harmful uses in some cases

Normative principles

- Concept of 'ownership' that is community-based is important
- Consent to collect and to incorporate information must be obtained and must adapt to a context in which 'ownership' is shared within a community
- The ability to control who will have access to certain information, and how it might be used is important and in some cases essential to ensuring that IK is used according to cultural norms or principles

Normative/Structural Considerations

- Communities that provide IK must have the capacity to access this information within repositories, and in some cases, it may be important to have the information stored locally
- Consideration must be given to the dynamic and iterative nature of some IK
- Special attention must be paid to appropriate attribution

Incorporating IK into Polar Data Infrastructures

- On the legal side
 - Licensing principles can be adapted to facilitate the shaping of obligations around the ethical incorporation and use of IK in data repositories
 - Flexible and accessible licensing frameworks can give communities more control over terms under which information is shared and used
 - Sharing of information includes sharing for purposes of inclusion in the data repository under terms and conditions appropriate to the type of knowledge and the community
 - Use of information includes downstream uses by other researchers, governments, commercial entities or even by the broader public having access to the repositories

Some resources

- CCADI: http://ccadi.ca/canadian-consortium-arctic-data-interoperability
- National Inuit Strategy on Research (NISR), 2018: https://www.itk.ca/wp-content/uploads/2018/03/National-lnuit-Strategy-on-Research.pdf
- T. Scassa and D.R. Fraser Taylor, "Legal and Ethical Issues around Incorporating Traditional Knowledge in Polar Data Infrastructures". (2017) *Data Science Journal*. 16(3), p.1-14. DOI: http://doi.org/10.5334/dsj-2017-003
- CIPPIC, A Proposal: An Open Licensing Scheme for Traditional Knowledge, 2016,
 - https://cippic.ca/sites/default/files/file/CIPPIC GCRC--TK License Proposal--July 2016.pdf