Briefing Note On Traditional Knowledge Sources From The Internet

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This briefing note addresses the use of traditional knowledge (TK) data sources from the internet, the associated ethical issues and challenges, and provides an example of a situation that poses such challenges – community based monitoring platforms.

The global rise in social media platforms and users has resulted in a concomitant increase of Indigenous Peoples, communities and organizations sharing information based on their knowledge and experiences publicly on the internet. Social media platforms are significant venues for Indigenous Peoples to communicate within and between communities about environmental knowledge, gathering food, social and cultural activities, and changes that are occurring, among other topics. Some western science researchers have expressed an interest in gathering (and have begun to gather) such information, framed as "Traditional Knowledge", for use in research. Information from TK should not be solely gathered through the use of social media (including Facebook posts, public environmental observation program websites or other platforms). Widespread access to this type of information raises several concerns and challenges, particularly related to ethics and scientific and TK rigor.

Though individuals are sharing information on public platforms, there are troubling ethical questions around research practices that gather data from these platforms. Many people unknowingly share information on websites/portals without understanding or reading the use agreements that may give others ownership of the information shared. With information available on the internet, it is difficult to control use rights, access to information, or how it is used. The absence of informed consent is inherent in the use of publicly available information today (e.g., Facebook and many applications on smart phones). It is important to ensure proper documentation, management of information, as well as involvement of TK holders to ensure that TK is not taken out of context or misinterpreted. Research protocols and policies need to be established for web-based information gathering to ensure that individuals and communities are not harmed by the information collected or its use, that research rigor is maintained, and that information is used ethically.

Information from TK must be collected and documented with rigorous social science and/or TK methodologies. TK is not evenly distributed throughout indigenous communities. While researchers may

want to harvest digital information from online sources, without proper engagement of communities, particular knowledge holders, or a formal research agreement, it may be impossible to determine who a TK holder is, and who may be a community member, but not an individual considered *by* their community to be a TK holder or expert. It is also difficult or impossible to determine if information shared on a public website has been vetted through the proper channels. The collection of information must always be in direct collaboration with TK holders. This includes (but is not limited to) free, prior and informed consent, development of research questions and protocols, analysis of information and review and approval of research products. Many TK holders participate in social media and share information from their knowledge via online platforms; however, using social media as a sole data source for TK documentation is unacceptably problematic (e.g., the data is not contextualized, sampling errors).

As one brief example, community based monitoring (CBM) projects have received much attention in the last decade. As stewards and residents of the Arctic, Indigenous peoples are the first witnesses to changes that are occurring and hold detailed and complex knowledge of the relationships between Arctic systems. As such, researchers and government agencies recognize the many benefits of including Northern Indigenous communities in their research, often viewing Indigenous communities lining the coast of Arctic countries as an inexpensive source of environmental monitoring and information gathering. The challenge that we face is in ensuring that the needs of the communities are equally addressed and that the utilization of information from TK is done in an ethical and sound manner. Equally important is the identification of who is providing the information into CBM projects; as a result, data-bases must be clear and transparent.

Another important consideration is the identification of knowledge holders, because of the different levels and distribution of knowledge within communities. For example, a 20-year old with no hunting experience, or someone who has no experience with fish but is talking about fish, is an example of an individual that may not be considered a TK holder or be following TK practices. CBM programs that solicit observations/information from any and all people are not the same as a program based on TK. These considerations for TK-based CMB projects are also true for the use of other social media or internet-based information.

As we move forward with the use of the many technological tools available today ethical, scientific, and TK rigor cannot be forgotten. It is important that we apply the same standards to information gathered on or off of the Internet.