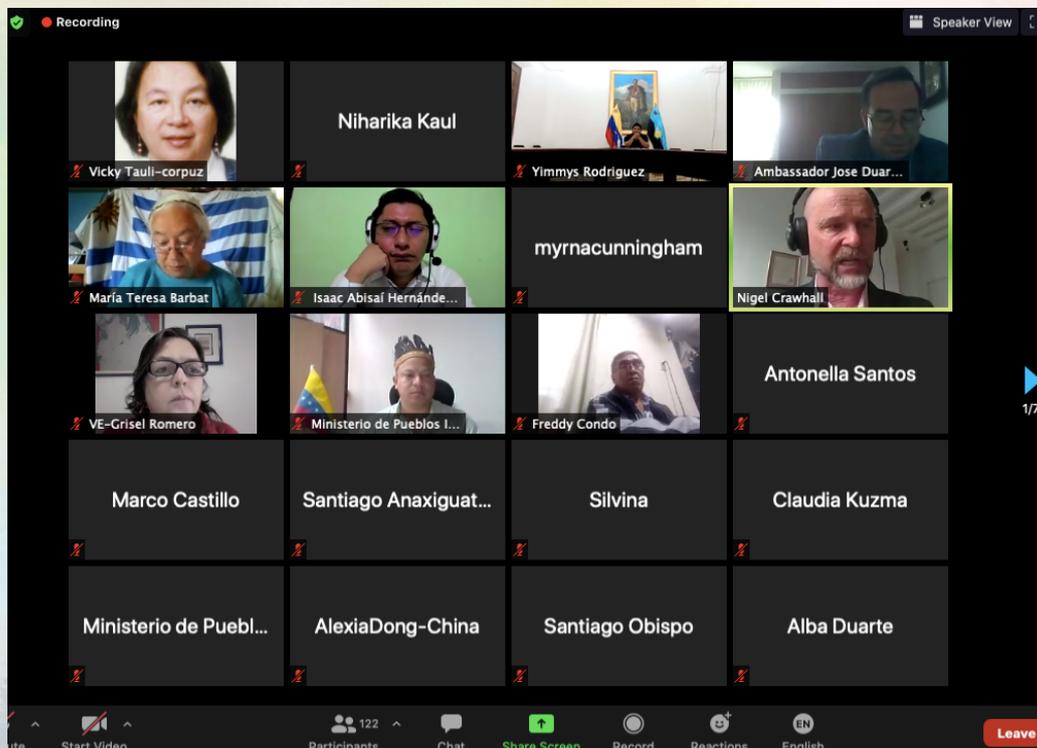


ONLINE CONSULTATION FOR INDIGENOUS PEOPLES ON THE UNESCO RECOMMENDATION ON OPEN SCIENCE

15th January, 12:00-15:00 Paris Time



In the Covid-19 Pandemic, it is now more relevant than ever to bring Science closer to the public across the globe. UNESCO plays a critical role to propagate Open Science through international standard setting instruments such as the Recommendation on Open Science, that is bound to be presented this year at the 41st Session of the UNESCO General Conference. The present consultation intended to help enrich the Recommendation by emphasising concerns that Indigenous scholars and practitioners had for the same.

The aim of the Recommendation is to advance the discussion and broaden the perspectives on Open Science to make them more geographically balanced. There must be knowledge diversity in scientific research and there is a dire need to acknowledge the divides in the knowledge systems across the world. Sharing of knowledge and being sensitive to protecting local knowledge is equally important.

Open Science has various dimensions such as Open Data; Open Software; Open Engagement; openness to diversity of knowledges and openness to Indigenous knowledge systems. It propagates equity, inclusiveness, integrity, scrutiny, verifiability, sustainability and flexibility within Science. There is a need for promoting a universal standard for Open Science; investing in capacity building and infrastructure for Open Science; promoting innovative practices for Open Science and developing monitoring strategies for measuring the impact of such practices.

Indigenous people in Americas have witnessed inequality, discrimination and economic expropriation for centuries. Pandemic has made us rethink relationships between cultures as being mutually enriching. Bolstering knowledge systems has been the tonic of Indigenous people. Over time people have come and taken knowledge from Indigenous people, even reinterpreted it without giving due credit to the knowledge givers- the Indigenous communities for sharing their knowledge. Their languages, stories and documentation collected about plants, animals and their lands disappear after being used and misused. UNESCO must help open the way for Indigenous knowledge to find its way into what we know as Science.

We need to link Indigenous knowledge to their control over resources and land. Their knowledge is based on survival, environment and territories and if this link disappears so will their knowledge. More systematic ways of inter-generational transfer of knowledge, especially knowledge of Indigenous women, must be developed. If we use the core values and guiding principles mentioned in the draft Recommendation as the foundation for Open Science, we can change existing paradigms of knowledge.

There are many examples of scholars such as Yolanda López who focus on developing and employing approaches from social and natural sciences, but are fully based on Indigenous understandings, frameworks and conceptions. This approach includes active involvement of Indigenous People. It is action oriented, focused on respect, reciprocity, relevance and mutual responsibility with emphasis on privacy, intellectual property, data custody and secondary use of data. It also ensures the participation of communities, particularly in the interpretation of data and review of research findings, while maintaining respect for community.

Decolonial research across knowledge systems must be conducted to include religion, philosophy, mathematics, physics, health, engineering, arts, and all systemic sciences. This will trans-border the Western Modernity's compartmentalization of knowledge systems into humanities, social and physical sciences. All knowledge systems are science in their own ontological and epistemological ways providing equal value of importance to the good life and better appreciation and respect of multi-perspective world views.

All knowledge systems must be recognized as legitimate for and valid in generating (new and innovative) knowledge, thus, the state/polity must provide investments and resources "equal" to all knowledge systems. The Open Science movement has ignited the need to cultivate, develop, and distribute our very own homegrown research and knowledge systems in our societies by (1) de-centering knowledge and knowledge production from the Global North towards the Global South domain, (2) disinvesting from citational power structures to building our very own citational infrastructure system and promoting global south-based journals and book publishers, (3) digressing from the Western canons to highlighting our homegrown knowledge sources while in dialogue with those canons, (4) making our curriculum and learning materials colourful (not white author dominated), and (5) diminishing hegemonic voices of gatekeepers while magnifying the 'othered' marginalized ones.

A truly reformed 'decolonial' structure or system of theorizing and doing research with the potential to inform instruction in the education system is highly recommended as a starting point in discussing Open Science. Another critical element is the ways in which trust can be built between stakeholders and Indigenous communities. Indigenous data sovereignty derives from their inherent right to govern the production and use of their knowledge. Control over data must lead to collective benefit based on the principle of mutual respect.

To deliberate on the first draft of the UNESCO Recommendation on Open Science, UNESCO Chair in Community- Based Research and Social Responsibility in Higher Education hosted 11 international webinar series along with partners. These 11 webinars from the Pacific to Latin America, Africa to South- East Asia, North America to Europe resonated with the demand for valuing and acknowledging Indigenous knowledge, local knowledge and knowledge linked to lives and cultures of Indigenous people. Science must be open to knowledge systems which were the dominant source of humanities, life and survival till 500 years ago, knowledges that keep their Indigenous communities located in their land and knowledge systems which provided healing solutions to society around the world during the Pandemic.

Knowledge of use of forest products as food, knowledge of water, oceans and lands has been significantly relied upon by households and communities, not just from Indigenous parts of the world in the treatment and prevention of Covid-19. Therefore we need to find practical steps which incentivise the integration of Indigenous knowledge with the hitherto dominant system of Science. Science has evolved on the basis of instrumental rationality in order to control the resources of nature for the benefit of a few. Indigenous knowledge is based on the principle of relational and longitudinal commitment which treats all living creatures as part of cohabitation with human beings.

A practical step is to teach students of science stories of Indigenous knowledge and how they are impacting them in their everyday life. Researchers in the scientific community must be exposed to knowledge of elders by inviting them to be teachers in classrooms and by taking students of a wide variety of disciplines to Indigenous habitations on land, forest and in sea in order to learn experientially the reality of those theories and concepts. Funding of research incentivises research in Indigenous knowledge along with modern science. In fact integration of the two should be encouraged through funding streams which focus on the same research question being addressed together from two different knowledge systems.

It is also important that academic institutions demonstrate their commitment to Indigenous knowledge by respecting its contribution to the place where they are located. In building protocols for ethics and review of ethical practices, it is important that Indigenous knowledge protocols are integrated. Some countries and communities have developed their own ethical protocols which need to be taught to students of science around the world irrespective of whether they are coming from Indigenous communities or not. Indigenous scholars and researchers should be supported to translate their own cultural and linguistic storehouse of knowledge into the dominant European languages currently being used in science. It is important to acknowledge that language is the career of knowledge and culture is the storehouse from where it comes. Indigenous languages must be supported through research grants and translation so that learning of Indigenous knowledge can be mainstreamed in teaching of science. These practical steps can be incorporated in the recommendation of Open Science that UNESCO makes to its member States this year. We hope that Open Science from now on is open to all forms of knowledge, in particular to Indigenous knowledge.

