(Disponible sólo en inglés)
(Disponible en anglais seulement)

Workshops for community involvement in the use of Nunaliit for environmental applied research in Mexico Geomatics and Cartographic Research Centre

Project Summary
Part I. Description

Participating organizations
- Geomatics and Cartographic Research Centre
- CIESAS (Centre forResearch and Higher Studies in Social Anthropology)
- CentroGeo CDMX
- INFOTEC
- INEE (Institute for Education Evaluation)

Background or problem statement
The project was developed in view of the interest in the GCRC's open source digital atlas technology, emanating from a wide range of players, inclusive of academics, researchers, technologists, an environmental organization and Indigenous community members. Several of these individuals had had previous engagement with the GCRC and the Director and were engaged in exploring further the dynamic potential of cybercartography.

This project served to advance goals of research innovation, replicability and sustainability, active Indigenous engagement, and international partnership in an exemplary fashion, and, as noted, the training has served to establish a core network of well over eighty researchers, students, technical professionals and Indigenous community members versed in the application of cybercartography and use of Nunaliit.

General description of the project

Workshop 4
This two-day workshop for Terra Peninsular demonstrated the potential of cybercartography and Nunaliit to enhance community-based research and the recording of local information to two Indigenous communities from three villages in Baja California, and included the active engagement of elders, women, youth and children, and the creation of two language atlases, as well as researchers. Twenty four Yumana community members participated in the workshop. In view of the huge interest, Terra Peninsular rented two vehicles to bring participants to the workshop location, where they shared accommodation and meal allowances. It is interesting that in addition to the anticipated adults and elders, youth and children also engaged in the mapping project; the input of a little girl sketching her storytelling map is captured in a photograph. By the afternoon of the first day all were making enthusiastic and valuable contributions, including beginning the creation of two community atlases.

Description of outcomes and follow-up
Four workshops and five days of training on cybercartography and the innovative Nunaliit Atlas Framework were successfully delivered in two locations in Mexico. This transfer of technology and the training has served to establish a core network of well over eighty researchers, students, technical professionals and Indigenous community members versed in the application of cybercartography and use of Nunaliit. The Nunaliit Atlas Framework has been fully installed in at CIESAS and CentroGeo, and they access technical assistance and on-going support from INFOTEC. It is now fully available to researchers and to communities on the web site of both organizations. In fact, the workshop in Ensenada was able to use Nunaliit from those sites. The training/informational materials have been translated into Spanish. Since Nunaliit is open source, partners will be able to write code to develop new functionalities to respond to Mexican-specific circumstances and translate further Nunaliit documentation into Spanish. Two community-based atlases were produced, to serve the community, and these undergo on-going

development and are not available as public products. Likewise, two other atlases, created for their research by the students who were involved with GCRC.

Project Summary
Part II. Analysis

Successes
This project served to advance goals of research innovation, replicability and sustainability, active Indigenous engagement, and international partnership in an exemplary fashion, and, as noted, the training has served to establish a core network of well over eighty researchers, students, technical professionals and Indigenous community members versed in the application of cybercartography and use of Nunaliit.

Challenges
There were a few challenges that had to be addressed along the way. In view of the great local community interest in the project, it became apparent that the workshop in Ensenada would only be successful it there was adequate translation. Hence additional expenses were incurred to cover the costs for simultaneous translation as there was no way for the local people to participate effectively without this. Extra space had to be rented given the larger than anticipated community attendance. It was also a labour-intensive task to install and trouble shoot technological matters, in view of nature of the computer equipment and infrastructure set ups, and the GCRC Technical Manager put many long evening hours into facilitating this process. Finally, GCRC's Director, facilitated some connections between institutions and individuals, in view of both his long-term partnership building history and relationship with a diversity of players across Mexico, and his facility in Spanish, to ensure successful engagement and completion of all aspects of the project.

Lessons Learned
The primary findings indicate that the Indigenous communities are ready and enthusiastic to engage in cybecartographic atlas creation, and the new ways of community-based knowledge sharing to advance sustainable environmental work. It was also very encouraging to witness the collaboration amongst the diversity of partners – from Canada to Mexico, city to village, academics, researchers, students, technicians, and grass roots Indigenous community members. Thus a key lesson learned pertains to the potential of this innovative cybercartographic technology to support Indigenous knowledge reclamation and sharing, interdisciplinary knowledge generation, community-based social development and empowerment, and environmental stewardship.

What Next? What will you do and what should others do?
The new tool will enable researchers and Indigenous communities in Mexico to preserve local languages, document traditional knowledge of the forest environment in all its complexity, manage the environmental knowledge and disseminate information on their work in a new manner of communications. This will serve to strengthen sustainable use of forest and the preservation of plant, animal and bird life. It will allow communities to represent, relate and communicate the culture, environment, ancient knowledge and meanings and contemporary challenges they are facing through maps. The Nunaliit technology will be adapted further to explore traditional knowledge and meanings embedded in the social cultural landscapes and research of socioeconomic and environmental problems and contradictions within cultural matrices in contemporary temporal and special materializations. Further, GCRC is developing cell phone functionality to support local in-situ knowledge input.

The Nunaliit digital atlas framework can be adapted further to address local needs and priorities for information documentation, preservation and sharing on environment, culture, ancient and contemporary community-based knowledge, language, cartography, transmission of messages and address of challenges, all these items being consistent with the initially identified priorities and interests of the communities. Technicians from CentroGeo and INFOTEC have been trained to support operationalization of the technology, and to respond to emergent interests e.g. the creation of new schema. The availability of materials in Spanish enhances this localized capacity to tailor the platform to respond to need. Thus, it is anticipated that this technological capacity will ensure on-going enthusiastic learning and engagement with the atlases that were created during the Ensenada workshop.

For more information about the project please contact:

Dr. D. R. Fraser Taylor
Geomatics and Cartographic Research Centre
O: 613-520-2600 ext. 8232
F: 613-520-2395
fraser.taylor@carleton.ca