

Technology and Traditional Knowledge

Best Practices and Documenting Traditional Knowledge

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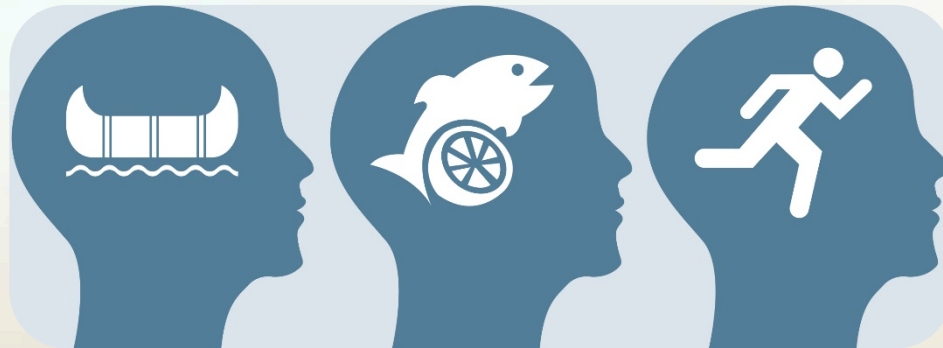
Overview

- Evolution of Traditional Knowledge and Technology
 - Types of Data
 - New Approaches
 - Data Collection
 - Data Storage
 - Data Sharing & Access
- Best Practices
 - Lessons Learned
 - Best Practice & The Future of Technology and TK

Evolution of Traditional Knowledge and Technology

Content: Type of Traditional Knowledge

- Data (Facts) vs. Information (Meaning) vs. Wisdom (Application)
- Spatial vs. Non-Spatial



Method: Evolution of Knowledge Exchange

oral → written → recording devices → computers → Internet → electronic collection tools

Evolution of Traditional Knowledge and Technology – Data Collection

Technological Innovation:

Migration from traditional paper maps/surveys to electronic applications

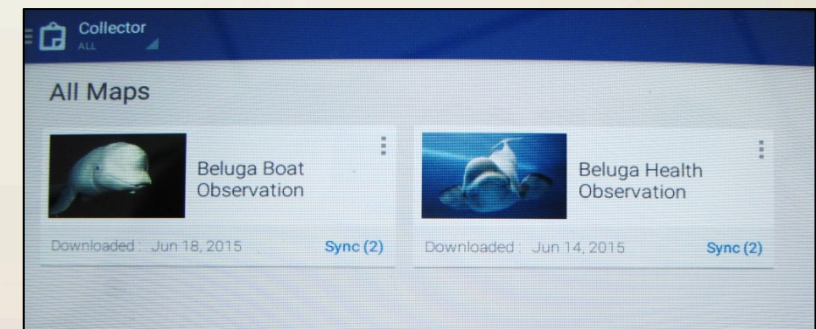
- Example of Technology: GPS, Field collection tools, interactive electronic maps, georeferenced images, electronic survey instruments
- Example of Application: Beluga Observation Online Field Collector Tool, DFO 2015

Positives:

- Efficiency & Standardization

Concerns/Considerations:

- OCAP, Review Process, Security & Cost



Evolution of Traditional Knowledge and Technology – Data Storage

Technological Innovation:

Emerging database and storage solutions

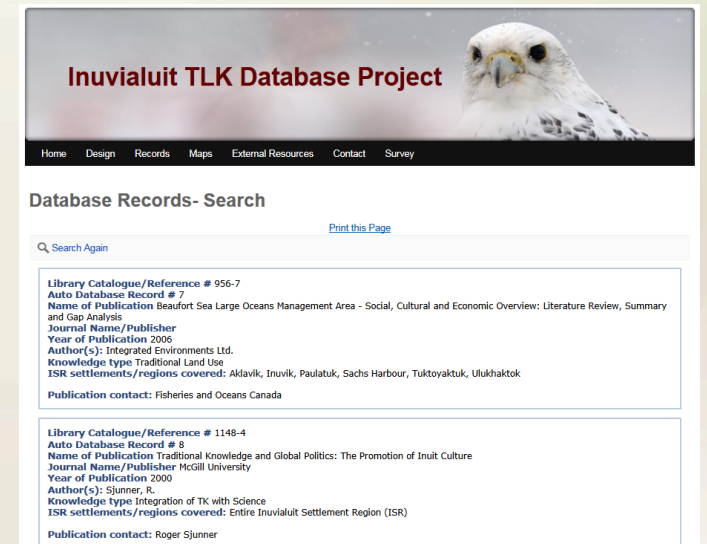
- Example of Technology: Cloud storage, multi-type relational databases, improved archiving techniques
- Example of Application: TLK Database Website, Joint Secretariat 2015

Positives:

- Reduced costs, Ease of analysis & archiving

Concerns/Considerations:

- Potential Cultural Impacts & Security



The screenshot shows the homepage of the Inuvialuit TLK Database Project. The header features the project name and a navigation menu with links for Home, Design, Records, Maps, External Resources, Contact, and Survey. Below the header is a search bar and a 'Print this Page' link. The main content area displays two database records. The first record, # 956-7, is titled 'Beaufort Sea Large Oceans Management Area - Social, Cultural and Economic Overview: Literature Review, Summary and Gap Analysis' and was published in 2006 by Integrated Environments Ltd. The second record, # 1148-4, is titled 'Traditional Knowledge and Global Politics: The Promotion of Inuit Culture' and was published in 2000 by Roger Sjuner.

Evolution of Traditional Knowledge and Technology – Data Sharing & Access

Technological Innovation:

‘Internet based’ instant data access and sharing globally

- Example of Technology: web applications, websites & geospatial platforms
- Examples of Application:
 - Inuvialuit Atlas & CBMP Atlas, Joint Secretariat
 - Beaufort Sea Online Platform, Beaufort Sea Partnership
 - Arctic CBM Atlas, ELOKA
 - Inuvialuit Settlement Region Database, U of Calgary
 - Polar Data Catalogue, CCIN & U of Waterloo

Positives:

- Accessible and available

Concerns/Considerations:

- Participant privacy vs. acknowledgement
- Limited control over data



The screenshot displays a web application interface for the Inuvialuit Atlas and Polar Data Catalogue. At the top, the Inuvialuit Atlas logo and the Polar Data Catalogue logo are visible. Below the logos, there is a map of the Inuvialuit Settlement Region. The map shows various monitoring sites and region bookmarks. The text 'Inuvialuit Atlas' and 'POLAR DATA CATALOGUE' is prominently displayed. Below the map, there is a banner for 'Inuvialuit Settlement Region Database' and a section for 'Beaufort Sea Partnership Online Platform' with logos for various organizations including BSIMPI, BSSIRPA, CPAWS, CARC, CEEA, EC, DFO, FJMC, GNWT, GRRB, INAC, IC, IPY, IGC, IRC, ILA, ND, NRCAN, PC, TC, NTCL, NRC, NEB, OMRN, OSTP, RCMP, WMAC, WWF, and YG.

Best Practices – Lessons Learned

1. Ensure selected technology compliments the project objectives
2. Develop agreements between all participants before beginning the project – especially when contractor are involved
3. Training and in-house capacity building is crucial
4. Archive all collected data and resulting data products and maintain to ensure continued access!

Best Practices – The Future

1. Collaborate whenever possible to minimize overlapping initiatives
2. Select interoperable technology which can integrate with existing infrastructure
3. Ensure all technology driven initiatives are accompanied with best practice documentation
4. Cautiously embracing technology



Questions?