



Social Sciences and Humanities
Research Council of Canada

Conseil de recherches en
sciences humaines du Canada



Presentation Overview : Identifying Investments

✓ This presentation will review 5 core discussions :

- Analysis of the state of broadband in the Canadian North
- The opportunity of Digital Arts - Artists as economic drivers
- Research conducted in Ontario on Northern broadband



Canada's North : The State of Broadband

- ❑ Slow, unreliable, difficult to maintain and, of course, costly
- ❑ Nunavut Broadband Corporation formed in 2002
- ❑ Today, each of the 25 communities of Nunavut have at least one terminal of public internet access
- ❑ National Satellite Initiative (NSI) serves the territory as the only source of connectivity
- ❑ Maximum speed – 5 Mbps
- ❑ Shared infrastructure - \$200 for 1.5 Mbps with a 10 G data allowance
- ❑ It is estimated that over 30,000 people stand to benefit from improved access

Mobilizing Inuit Cultural Heritage

- ✓ Based at York University. In 2014, York University and The Ontario Research and Innovation Optical Network (ORION) successfully completed the first North American field test of a high-capacity 400G live research, education and innovation (RE&I) network :

- MICH currently has over 7 applied research projects with Inuit communities
- Specific projects in digital media and network infrastructure
- Database of over 400 community contacts
- Research expertise across Canada and Europe
- Access to RE & I communities via ORION, CANARIE and onwards across RE & I networks



Connectivity via ORION

- ORION provides connectivity to over 110 institutions
- Run specific broadband projects in rural Ontario
- Engaged in both transport and hardware right sizing in First Nations communities
- Specific projects in Manitoulin Island and SNOLAB
- Engaged at the federal level on Northern broadband
- Network research in IOT
- Security related research (SOC)
- Elearning platforms via Contact North

*"As the Backbone of Innovation for Ontario,
through collaboration
ORION will lead the implementation of
a cohesive digital infrastructure and services
for the Research, Education and Innovation (RE&I) community
in direct support of our users and their organizations,
to enable them to transform themselves for greater achievement."*



For Heather Iglooliorte, a curator and emerging Inuk scholar, Inuit art produced for a southern market is “one of the ‘interventions’ that has fostered and safeguarded Inuit culture in the face of numerous affronts to our sovereignty” (McMaster, 2011). Her proposition recognizes museum collections as a powerful cultural resource for storytelling and, therefore, of Inuit traditional knowledge. ‘

Let`s make this material accessible – on line – in the arctic.

The Frobisher Inn recognizes that access to the Internet is an important component of a guest's visit experience in our hotel. We also understand that most guests find our connectivity to be quite slow.

We would like to share some information about why our connectivity is slow, and how you, as guests in the hotel, can help improve everyone's experience.

The challenge

There are no ground-based communications links connections between Iqaluit and Southern Canada. This means that the Frobisher Inn is reliant upon Internet connectivity that is provided by satellite technology.

Satellite bandwidth is exceptionally expensive and local Internet service providers do not offer unlimited data plans as they do in the south. In order to keep our Internet costs under control, we are forced to limit overall data usage of the Internet on our guest network.

Help us conserve our limited bandwidth

The intent of the Frobisher Inn's guest WiFi network is to provide guests with basic Web browsing and email access capability. We ask that guests consider the following options to help us improve everyone's experience.

- Shutdown your devices or disable the WiFi when not in use
 - Shutdown or put your laptop in sleep mode if you are leaving the room
 - Enable airplane mode while your phone or laptop is charging at night or while you are leaving it in the room
 - Disable updates of non-essential applications on your phone or tablet
- Avoid high-bandwidth applications, sites and activities such as:
 - Netflix, YouTube and Facebook Video
 - Purchasing music or videos in the itunes Store or Google Play Store
 - File sharing
 - Uploading large photos and videos to Social Media

Broadband Research Questions

✓ **Some research questions that concern MICH around Network Footprint**

- Peak Traffic Hours
- Frequented HTTP or HTTPS portals
- MESH networks
- Access to cloud services
- Access to end points





Facilitating Inuit Expertise

- Establishment of E-Learning and computer literacy
- Teaching coding for the future of arctic residents
- Providing opportunities for North to North education
- Creation of a University of the Arctic

Building Cultural Capital

- Online, web and video shared and interactive platforms loaded with expert curriculum in: performance, fashion, jewelry, tourism...
- pan-Arctic clubs and networks in Games / Coding / Language & Literacy

Capacity Building for all arctic residents

- Supporting Inuit leadership
- Elder / youth and youth to youth mentoring
- Facilitating international, national, and regional communication, and collaboration
- new pathways for knowledge sharing

Entrepreneurship

- Training for the future: skills development for artists and performers, web and social media presence, numeracy skills and business administration, grant writing, marketing, copyright and intellectual property

Networking Academy

(Pilot a partnership project out of York University to explore feasibility and impact of a networked arctic)

Contacts

Principal Investigator:

Anna Hudson
Associate Professor, AMPD
michteam@yorku.ca

ORION:

Ali Hirji
Chief of Staff, ORION
ali.hirji@orion.on.ca

<https://www.facebook.com/mich.york.1>

<https://twitter.com/MICHProj>

