



The following article was first published in *Media Development* 2/2014.

Digital self-development and Canadian First Peoples of the North

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This article analyzes the sites of struggle through which First Peoples have negotiated communication and cultural rights for broadcasting (1991), telecommunications, and Internet infrastructure in rural and remote indigenous communities in Canada's Northern territories, focusing mainly though not exclusively, on Nunavut, the Inuit Region of what used to be called the Northwest Territories.

Between 1973 and the present, and when advantageous, indigenous peoples have convinced media policy-makers and managements to be more attentive to their specific needs by means of culturally persistent efforts and a range of technological and digital bypasses (pirate satellite dishes in the 1980s and more recently local community network servers), familiarity with bureaucratic discourses (especially those of the Canadian Radio-television and Telecommunications Commission [CRTC]), and strategic alliances. In broadcasting, these efforts culminated in a national channel, the Aboriginal Peoples Television Network (1999 -).

First Peoples' current digital self-determination strategies have successfully challenged the federal government's repetitious patterns of placing them on the socio-cultural and political margins of technology development – in media reservations.¹ While there are still many issues to be resolved in terms of infrastructure, program and project funding, and access to the Web in small Northern and remote communities, First Peoples (including those in the South) have become articulate central players in building spaces for themselves within the Canadian mediascape, assuring for themselves present and future places as national media citizens.

Earthbound infrastructure

Since its arrival in the North, electronic media's connective tissues have very delicately laced First Peoples to a technological modernity unimaginable in the late 1960s when infrastructure for a more accessible and diverse society was being debated in Canada's Parliament. Early discussions focused on the Telesat Act of 1969 which mapped out the parameters and coordinates of the second domestic satellite in the world – the first being Russia's Sputnik. Canada's geo-stationary satellite promised to improve South/North telecommunications (phone and fax), and to bring Southern and regional

television and radio broadcast services to communities with populations of over 500 (Accelerated Coverage Plan, 1974).

Until Anik I Satellite became operational in 1973, the Far North, unlike the West, could not be connected to the Southern telecom infrastructure because of the extreme characteristics of Arctic Nordicity. These included: permafrost, cold, bog, atmospheric interference, isolation, ice, small populations, the separation of Arctic islands by water, and other interference factors which prevented the establishment of land-based microwave towers connecting the South to the North (Louis-Edmond Hamelin, 1979). Ironically, while villages were left to fend for themselves because they didn't meet the population cut-off of the government's extension plan, they persisted in joining technological modernity by purchasing pirate receiver dishes. Because these were not regulated, they were able to downlink Canadian and American programming without additional costs for program reception.

This resulted in the North having two parallel infrastructures: reception dishes supplied by Telesat under CRTC regulation and those purchased by the villagers themselves from US sources, considered to be pirate dishes, which operated outside of governmental supervision or regulation. The latter tended to be in use from the early to mid-1980s and were carefully controlled by Band or village Council Officials. In the mid-1980s, some government regional subsidies were disseminated, at around the time that the CRTC realized the potential chaos of the situation and legalized these dishes.

Something new in the air

The federal government's extension of satellite services (without systematic policy input from First Peoples) had a profound impact on the North. It provided easy and fairly reliable telecom and broadcasting access for the purposes of achieving administrative, information, and entertainment goals. "Outsiders" were accustomed to dealing with an abundant information environment, but First Peoples were not. Thus the launch of Anik I can be seen as a turning point for First Peoples who were jolted into the task of finding their cultural and political spaces and voices in an imposed telecom infrastructure.

Its consequent public broadcasting menu was characterized by the absence of indigenous representation at all levels – from CBC North management headquarters in the South to regulatory policy decisions made in the South, to its programming decisions. Until the 1980s, for example, Inuit were delegated a mere 15 minutes per week for an interview program produced out of Montreal on CBC Northern TV service. Television, more than radio which had always been more inclusive of local indigenous peoples, became a site for struggle and negotiations over access, representation, fair portrayal, communications, and cultural rights beginning in the mid-1970s. First Peoples' absence from television (portrayal and employment) was a lacuna only to be fully addressed with the licencing of the Aboriginal Peoples Television Network in 1999.

Media service in the North was in its second phase of connectivity when I arrived in Iqaluit (then Frobisher Bay) to work with the National Film Board at a live-action Super 8 workshop in 1975 aimed at teaching Inuit media literacy in preparation for a future in which they would be able to transmit their own programming, reflecting their own cultures in the words of their own language dialects. I had missed the first development stage – one in which infrastructure was limited to short-wave radio, to citizens band emergency radio, and to earth-bound microwave towers lined up alongside Western

Canadian highways (such as the Mackenzie) or transportation routes leading from South to North, delivering signals to information-starved audiences eager to have access to more global worldviews as well as entertainment.

At this time, media dissemination was tied to the geo-stationary satellite, located in a reserved parking spot in the sky, at a given longitudinal point of 35,680 kilometers above the equator (Telesat, 1980: 12). This was later followed by: point-to-point and direct broadcast satellites (DBS), which delivered signals directly to homes with fairly small, privately owned receiving dishes. These have become sophisticated enough now through digitization and compression, to deliver 10 times more signals than they used to, with the same amount of bandwidth (Roth, 2005: 83). Satellites have been fundamental to communications in the North and in connecting remote and rural regions to the rest of the country, but within smaller towns and for local uses, there is still not nearly enough access time to meet demands.

Much has been written to contextualize First Peoples' communications history. The literature focuses on various phases of its development, representational practices, analyses of its programming, and the ways in which policy evolved to the point where Canada became the first state in the world to enshrine aboriginal communications in its Broadcasting Act of 1991. The Act legislated rights of access, employment equity, and fair portrayal for all public, private, and community broadcasting in Canada, and specifically noted that multicultural, multiracial, and aboriginal constituency groups were to be given special charter rights for promotion of their languages and cultural values. This was a unique moment internationally: Canada became the first state to enshrine these minority rights in a policy which had the power of sanction for non-compliance.

In summary, by the time early 1999 came to pass, Canada's technical infrastructure supported 120 indigenous community radio stations and 13 regional Native Communications Societies (NCS) across the North each of which were funded to produce and transmit weekly broadcasts of 20 hours of radio and/or 5 hours of local language television programming reflecting specific cultures and promoting a native "perspective" (Northern Broadcasting Policy and Northern Native Broadcast Access Program, 1983). Over different historical periods, indigenous TV has been disseminated via CBC Northern public broadcasting service or Cancom (a privately-owned service), and on a Pan-Northern distribution transponder called Television Northern Canada (TVNC) which was operational between 1991-1999 at which point the Aboriginal Peoples Television Network (APTN) was approved and went on air (September 1, 1999). APTN then became the distribution entity which consolidated programming of the 13 NCS organizations.

Along with these, APTN distributes acquired programming from Canada and international sources, creates original news and current affairs, and exhibits material developed by First People media makers from Southern Canada. APTN has also become a common source of assistance in the production and distribution of First Peoples programming for the entire country. Due to budgetary constraints of government entities targeting monies for indigenous media (such as Telefilm Canada), APTN provides some employment and funding in small amounts for valuable feature film and documentary film production assistance. Its main source of funding is advertising sales, subscriber fees, and strategic alliances (APTN Annual Report, 2012: 1).

APTN is a digital channel self-organized by First Peoples to share native stories with their (inter)*national* audiences, thus providing non-indigenous populations access to previously unknown culturally diverse perspectives. As a multilingual, intergenerational, multicultural and multiracial channel and web-based live-streaming service, it has indigenized the uses of technology and shown how through their cultural persistence First Peoples have facilitated cross-cultural communications through original and creative use of the electronic grid across Canada, throughout North America and internationally through its Internet websites. APTN's broadcasting license has been renewed twice since its inception.

Is APTN a media reservation? Though some might consider it so, most recognize that it has created a constituency group strong enough to make an impact on Canadian (and international) policies, practices, and public opinion. The circulation of its content has provoked such initiatives as the Royal Commission on Aboriginal Peoples (199-96), as well as the recent Truth and Reconciliation Commission, the aim of which is to investigate human rights abuses in aboriginal residential schools. Internationally, it provides programming and resources to fulfill the UN Declaration on the Rights of Indigenous Peoples, Article 16, which argues for the communication rights of indigenous peoples. In fact, the Canadian Broadcasting Act of 1991 firmly commits to this UN Declaration as well and historically preceded it.

Unfortunately, although the digital divide in broadcasting has been addressed by APTN and other small programming initiatives, the struggle for fair web/Internet infrastructure distribution is still not satisfactorily resolved. Service disparity is most apparent in the rural/remote parts of Canada. Here, the impact of governmental thinking about technology follows the economic profit-based models associated with urban regional planning. When these concepts are mapped to the digital mediasphere in rural and remote areas, particularly in regions as isolated as the North, many factors do no "fit" adequately. These raise complicated questions about embedded notions of what access actually means in outpost regions, infrastructure cost control in large underdeveloped territories, the demand by First Peoples to be involved in policy and decision-making processes, development strategies around public/private ownership, benefits and liabilities from widespread access, and funding subsidies for service in sparsely populated communities.

Joining an intermediated modernity

When the time came a few years ago to find an Inuktitut term for the word "Internet", Nunavut's former Official Languages Commissioner, Eva Aariak, chose *ikiaqqivik*, or "travelling through layers" (Minogue, 2005). The word comes from the concept describing what a shaman does when asked to find out about living or deceased relatives or where animals have disappeared to: travel across time and space to find answers. According to the elders, shamans used to travel all over the world: to the bottom of the ocean, to the stratosphere, and even to the moon. In fact, the 1969 moon landing did not impress Inuit elders. They simply said, "We've already been there!" (Minogue, 2005). The word is also an example of how Inuit are mapping traditional concepts, values, and metaphors to make sense of contemporary realities and technologies (Soukup, 2006: 239).

The outstanding issue with digital technologies in remote Northern communities is their lack of broadband/bandwidth infrastructure. Internet service providers, who do not have the same legal obligations as they do with telephone's universality requirement, are not particularly interested in establishing infrastructure in communities in which they won't be able to make much profit. Cost is high, profit is low; access time in the current framework is of great value as a scarce commodity. Few public subsidies by government have been forthcoming until very recently when the federal Conservative government announced a funding allocation for Northern remote and rural communities of \$305 million over a period of *five* years. Given that there are at least 300,000 families in Canada still without access to high-speed Internet, this will likely make only a small and limited difference for the immediate future (Nunatsiaq News Online, February 13, 2014).

In the larger communities of Northern Canada, telephone and Internet access, affordable broadband costs, and Web 2.0/3.0 have technically and socially changed First Peoples' mediascapes. Aboriginal broadcasting is no longer the singular, most powerful tool of information dissemination, entertainment, and cultural reinforcement it once was when it was the only television channel with systematic native content. Like others around the world, aboriginal populations are attracted to the Internet as a way of joining postmodernity; of building virtual local, regional, and (inter)national social networks; of participating in gaming activities; and of recirculating native media content in unique ways which has opened up creative options and fascinating images never before considered on other media.

Small community users, however, still experience frustration when having to queue for their dialup access time since high speed is too expensive. In 2010, Northwestel (the largest Internet service provider in the North) customers would pay \$100 per month for high-speed Internet with a 10 gigabyte limit on downloading and a penalty of \$10 for every gig that is downloaded over that limit (Windeyer, April 8, 2010). If you compare this to the same speed of Internet via satellite that people in Montreal receive, the Northern cost would be \$8,800 a month: (op cit. Nunatsiaq Online, June 9, 2010)

There is no doubt that First Peoples in urban areas have skilled and located themselves well within Internet space using Web 2.0 (and 3.0 when available) and are in the process of building their individual identities, their social and professional networks, and their (inter)national personae, as almost everyone in the world with "access" is doing. The *Aboriginal Technologies in Cyberspace* project leaders, Jason Lewis and Skawennati Fragnito and their team do outstanding web productions as they carve for indigenous peoples a guaranteed historical, current, and future place or "home" for First Peoples on the Internet, in digital games, in video, film and other forms of media production (<http://www.abtec.org/index.html> – retrieved on March 10, 2014).

Indigenous digital self-determination: Framing access in the interest of First Peoples – from the ground up

Affordable connectivity and its sustainable local maintenance and management must be supported by policy which is central to successful expansion of national broadband and fibre optical systems in the North. With delays in policy decisions and provision of optimal service, First Peoples are creating what I call digital bypasses to meet their distribution needs at the local level. Outstanding among creative responses to control

better and more widespread community access to the Internet is a system run by Iglulik Isuma Productions, Inc., the first independent Inuit production studio in Canada.

To popularize the work of indigenous filmmakers from up North and around the world, Isuma launched a video website, IsumaTV, in 2008 with support from two relatively new players in the field: the Canada New Media Fund and Partnerships Fund of Canadian Culture Online. IsumaTV provides free and easy access to a growing archive of approximately 800 Inuktitut media files and 2,000 other aboriginal feature and documentary films in 41 languages (Cohn, personal interview, May 2, 2012). Ironically, though the Inuit films are produced in the North, residents in the very communities where the films were produced were unable to view them because of limited bandwidth. Importantly, Isuma figured out a way to get around their restricted amount of bandwidth.

Isuma Distribution International is now running the Digital Indigenous Democracy (DID) project, that installs in each slow-speed community a low-cost, innovative package of community-based technology that allows users to jump the Digital Divide and use interactive media at high-speed" (Digital Indigenous Democracy retrieved from <http://www.isuma.tv/en/did/CMF>). Simply put, they have set up local servers in the communities, have uploaded them with IsumaTV programming at source and have connected each house by cable to the server. Consequently, rather than having to go to the Internet to watch their own programming, townspeople can connect directly to their local village servers to download or live stream Inuktitut programming.

The water solution

For more long-term solutions, several companies in Alaska have been trying to establish connectivity between Alaska, Greenland, Europe and Asia through the Arctic waters. Their plan is to set up East-West sub-oceanic fibre-optical cables to bring connectivity to distant communities through much cheaper and effective technologies by passing through the Arctic Ocean and Northwest Passage. These East/West lines could then be connected North/South to local Arctic communities in need of improved Internet service. The most recent underwater cable proposal is by Arctic Fibre, "a fibre optic telecommunications project developing one of the largest subsea cable networks in the world. The cable connects Asia to Western Europe via the southern portion of the North West Passage through the Canadian and Alaskan Arctic" (<http://arcticfibre.com/>).

Arctic Fibre will bring affordable high speed Internet access to about 52% of Nunavut's population to enable more reliable connectivity, again leaving out the smaller villages. The system's construction is scheduled to begin in May, 2014 and to be in service in January 2016. Its \$620 million cost will be paid by customers mainly in Asian countries: Japan, China, and South Korea (Nunatsiaq Online, January 24, 2014). The new marine cable backbone has been difficult to negotiate given that it will be passing through Canadian Arctic waters, considered to be sovereign territories – for which complicated negotiations are taking place. It will also be competing with existing smaller service providers whose current monopoly will be challenged.

It seems like the Canadian government will be supporting the proposal as on January 24, 2014, Nunatsiaq News announced that Industry Canada was to oversee 52 terms and conditions before its implementation. Furthermore, the government will not require Arctic Fibre Inc.'s undersea cable proposal to undergo an environmental hearing making

it easier to begin construction without policy obstacles (Nunatsiaq News, January 24, 2014).

Sadly, it is due to climate change impacts, such as the melting of the Arctic sea, that water has begun to be considered as a potential solution in which to locate the optical fibres that will deliver signals to the North more efficiently and economically. Though this was not intended to be the primary goal of Arctic Fibre's enterprise, the potential piggy-backing of North/South communities on the East/West fibre optical highway, gives the project added value to certain Canadian Northerners who happen to be conveniently located near the planned fibre optical routes. As important as it is to have this connectivity, the project remains disturbing to environmentalists at the same time as it is an exciting prospect for those craving sustainable and affordable Internet service.

Concluding remarks

Canadian First Peoples have come a long way in developing a multi-platform communications system for themselves through cultural persistence, creative initiatives and through building strategic alliances so that their scarce resources can be pooled. The routes they have followed since the early 1980s have been circuitous but always driven by a critical demand for an audible and visible presence within mainstream and indigenous media forms. They have followed a diplomacy aesthetic² that has enabled them to negotiate difficult demands with intelligence, sensitivity, humour, and persistence.

Having met their Canadian broadcasting objectives in the last decade, APTN is turning its attention to both strengthening its Canadian multiplatform services and considering the establishment of a collaborative international indigenous "world" television channel, similar to CNN or BBC World Service. Other indigenous media-makers such as the Igloodik Isuma team are focusing on feature film production and a range of web-based content dissemination strategies (gaming sites, virtual reality, YouTube, Ted Talks, among others). The indigenous media field is burgeoning all across Canada – from sea to sea to sea.

There will always be cultural resource and access issues, political differences, and financial challenges when doing indigenous media production and distribution. Most important, however, is that First Peoples are "out there" making an impact inside and outside their communities. They have claimed their presence in visual and oral media not just as *indigenous* media-makers but as MEDIA-MAKERS. Having become persuasive players in building (cross) cultural spaces and places within the Canadian mediascape, First Peoples have assured for themselves present and future voices and images as national media citizens.

Notes

1. Here I am referring to a repeated pattern of the federal government in which First Peoples are left to find their own financial and intellectual resources for expensive utilities that are made available to urban and Southern regions of Canada as a common, easily available, and affordable service.
2. The term "diplomacy aesthetic" is one that I made up years ago in the context of a development communications class. It refers to that form of communication which is the most appropriate, beautiful, and expressive for the occasion or negotiation taking place. It is intelligent, strategically smart, considerate and respects and adopts the affective, emotional aura of the person(s) or group with whom one is engaged.

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Personal Interview

Norman Cohn, May 2, 2012.

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