

A History of Everyday Communication by Community Members of Fort Severn First Nation: From Hand Deliveries to Virtual Pokes

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ABSTRACT

Fort Severn Washaho Cree Nation is the most northern community in Ontario. Without road access for most of the year, Fort Severn community members have always found innovative and useful ways to communicate and share information. This paper traces the history of everyday communications from the pre-analogue era to the current day. The focus is on how Fort Severn community members communicate and use technology in a community-centered and holistic way. Information was gathered for this paper over the course of three visits to the community and 59 interviews with Fort Severn community members. Community members reflect on their history of communications, and their current use of a broad range of technologies that utilize broadband. Critical thinking about technology use, and what is needed to support continued innovative and community-centered use is explored.

General Terms

Human Factors.

Keywords

Indigenous, First Nations, Community-Centred, Communications, Information and Communication Technologies, Broadband, Networks, Remote, Satellite

1. INTRODUCTION

Fort Severn Washaho First Nation is the most northern Arctic community in Ontario, Canada. Sharing information and having strong communication links has always been important to the Fort Severn community. This paper is a collaborative creation with Fort

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Severn community members: together we trace the history of communication and information sharing by the community members of Fort Severn, from the time of hand delivered messages up to the digital communications of today.

The story focuses on the community members themselves and how they communicate and share information in their daily lives. Fort Severn as a collective has demonstrated its leadership by developing and implementing a community radio station, a community cable TV service, a community Internet service, a community mobile phone service, and community-led and supported services including telehealth, telemedicine, distance education and videoconferencing. In many cases, the Fort Severn leadership is working closely with strategic partners such as their tribal council Keewaytinook Okimakanak (KO) and its telecommunications division K-Net to develop and support these community services.

Elsewhere we have discussed how Fort Severn has developed its digital infrastructure and is using it to deliver community services [1]. For the current study, we strive to tell an inclusive story of daily communication and information sharing from the perspective of the community members. The analysis is based on 59 interviews with community members about history of technology use in Fort Severn, current use, perspectives on using ICT, and the consequences – including unintended ones - of the introduction and use of technologies.

2. A HOLISTIC APPROACH

Community members living in remote and rural First Nations, and people working with these communities, are typically aware that taking a community perspective is very important. Community activities aim to be holistic. From a holistic perspective, communications and technology must benefit everyone in the community, instead of just a select few; this means that the technology is implemented in a mindful and positive way. This perspective aligns with the theory of community informatics - technology will support community development only if the collective capacity is available to use the technology effectively. In

a community context, “effective use” of a technology has been defined as the capacity and opportunity to successfully integrate ICT to accomplish collaboratively-identified goals [2].

Fort Severn’s success with building and using its digital communication infrastructure can be linked to several key concepts. The first is the importance of strategic partnerships. The Fort Severn leadership (Chief and Band Council) and community members work closely with the KO tribal council (and its telecommunications division, research organization, and telemedicine division) and other First Nations communities. These strategic partnerships have been central to the success of the community’s use of broadband infrastructure and ICT. Second, the ownership, control, access and possession - the principles of OCAP [3] - of their networks and infrastructure are essential variables to address local needs and community development priorities. On an international level, the rights of First Nations to control their local broadband infrastructure and the data that flows through that infrastructure may be supported by the UN Declaration on the Rights of Indigenous Peoples [4], adopted by Canada in 2010 [1].

Finally, Fort Severn’s experience with locally controlled and developed communications processes and digital infrastructure can be linked to the “First Mile” perspective. The First Mile is both an emerging policy approach and a framework for understanding locally-driven broadband and ICT development. It supports First Nations to use broadband networks and ICT in a holistic manner. This includes supporting community members to use these technologies effectively [5].

3. STUDY METHODOLOGY

The purpose of this study is to understand and document the history of everyday communications by Fort Severn community members, from the perspective of the community members themselves. The current study complements our recent analysis of how Fort Severn developed its digital infrastructure and is delivering a wide range of community services using broadband networks and ICT, including health services, education services, Keewaytinook Internet High School, government and administration, and many others [1] and another study on the attitudes of Fort Severn and Mishkeegogamang First Nation community members toward telemental health [6].

This current study, part of a larger, long-term research project conducted in collaboration with Keewaytinook Okimakinak (KO), was conducted with the full support of the Fort Severn leadership. Researchers and KO liaison staff visited Fort Severn three times over the study period from March 2010 to March 2011. The study included a total of 59 interviews with participants in Fort Severn. Everyone was at least 18 years of age and represented a variety of roles within the community (including health workers, teachers, caregivers, elders and leaders).

The recruitment methods included poster advertisements, community television channel announcements, and “the snowball approach” as well as identifying participants involved in delivering services. Interviews lasting between 20-60 minutes were conducted by a trained interviewer and followed established ethical protocols. Participation was voluntary, anonymous, and confidential; participants received a \$20 honorarium. All participants were treated in accordance with the ethical guidelines outlined by the American Psychological Association, and the research ethics boards of the researchers’ home institutions. Furthermore, this study strived to respect Ownership, Control, Access, and Possession principles [3]. Interviews were recorded and transcribed. Transcripts were

imported into the NVivo qualitative analysis program. A basic thematic analysis was applied to identify the community members’ experiences with specific technologies and communication processes, and the positives and negatives they associated with each technology: quotes from community members are offered to illustrate findings. In addition, SPSS was used to quantify and organize the frequency of use information from the first set of interviews.

4. THE COMMUNITY OF FORT SEVERN



Sunrise in Fort Severn (Photo credit: Cal Kenny, K-Net)

Fort Severn First Nation is a small community on the bank of the Severn River, nine kilometers from where it drains into Hudson Bay. The community, the most northerly in Ontario, is home to about 400 people; another 250 community members live elsewhere most of the time. Most community residents speak Cree, and the school-educated people also speak English.

Every two years, Fort Severn community members elect their local government: a Chief and Band Council. There is one band councilor for every hundred community members. Fort Severn is a member of the Keewaytinook Okimakanak Tribal Council and the Nishnawbe-Aski Nation (Treaty #9 area).

Community members live in about 90 homes in Fort Severn. Every household has a snow machine or a truck or four-wheeler, essential vehicles for travelling outside the community for hauling water, harvesting firewood, and for trapping and hunting.

Even though most of the houses have lots of space between them, the community is quite small. The community center is near one end, with the health centre, band office and e-Centre across from each other. This is where most of the activity can be found during the day. The satellites that bring broadband connectivity to the community are located here as well.

Nearby is the Washaho elementary school and Keewaytinook Internet High School (which has a beautiful and bright classroom). A little further away – about a 5 minute walk – is the community hotel (the Niska Inn), next to the distance education centre (Wahsa), youth centre and post office. There is also a restaurant near the Inn that is open evenings for coffee, burgers, and home-made desserts. Another 10-minute walk out is the Northern Store (formerly the Hudson’s Bay Company), the only place in town to buy most items needed for daily living.

The airport is about four kilometers out from the community, and when the daily flight from Sioux Lookout arrives there is a constant stream of vehicles coming and going along the airport road.

Community life revolves around hunting, trapping, fishing and being on the land, and almost every household depends on trapping for food. Some community trappers travel as far as 200 kilometers

from Fort Severn and some traplines go past the Manitoba border. The region is very rich in wildlife (moose, polar bears, beluga whales, black bears, wolves, rabbits and more), fish and berries.

The winter is long in Fort Severn. It gets cold in the middle of October and the Severn River freezes in late October, and there are many cold snaps down to -40 C and lower during the season. During a few months in the winter, the community is accessible via winter roads from other First Nations communities located several hours' drive in different directions. This is an exciting time with lots of community members visiting other communities and hosting visitors. Fort Severn hosts a big ice-fishing derby in March that attracts people from several communities in the area and is a great source of fun and stories.

For the rest of the year, after the winter roads have melted away, Fort Severn is very isolated and expensive to visit. The flying distance from Toronto to Fort Severn is 1,495 kilometres. A return flight from Toronto and other Canadian cities to Sioux Lookout costs more than \$1,000, and the follow-on return flight to Fort Severn can cost the same, making the total airfare cost about \$2,000.

5. THE ANALOGUE ERA

The "Little North" area of Ontario features many systems of waterways; historically, the First Nations peoples in this region have extensive knowledge of the rivers used for transportation and communications [7]. In 1689 the Hudson Bay Company built one of its earliest posts at Fort Severn First Nation [8]; this of course had implications for travelling and information exchange. Long before telecommunications, community members travelled by foot to exchange information. Letters were left on rocks or hanging on trees along trails. Dog teams were also used - and still are. The travelers would run beside, in front, or behind the sled. As a consequence, Fort Severn people were known as good runners.

"I remember someone telling me... there was an emergency with a birth. Somebody went into labour and then they asked that girl to run, go get another ...midwife (there was one lady here, an elderly person that ... she already passed away - she used to act like a midwife for community members). It took them awhile to run...probably hours. She got her there, I guess, in time because the labour was just starting by the time the midwife came in."

—Fort Severn Community Member

Written mail became another way to exchange information: the post would travel by plane, sometimes only once a week. Field radios, (trail radios or citizens' band) were popular with hunters and others out on the land. Field radios were also kept in homes, and several people in Fort Severn still have them. First Nation communities in the area used these for passing messages on from one community to another, all around the Hudson Bay coast, and sharing stories. Cree and Ojibway are the languages most often heard on the field radio.

Before home telephones came to Fort Severn in the early 1970s, satellite phones were used by the local priest, Hudson's Bay Company manager, and hunters and trappers who would carry them for emergencies: they are still used today. However, they are very costly and even in the 1970s; it cost about two dollars a minute. Satellite phones were simpler to use than trail radios, without the interference.

In 1973, the first satellite dish for community phones was set up in Fort Severn by a local technician and visiting technicians working with Bell Canada. Funding for this development came from the province of Ontario with Indian and Northern Affairs Canada providing Bell access to the lands to construct and operate this service. Having the satellite for telephone and fax services led to significant changes in the way Fort Severn community residents connected with each other and the outside world. This included having home phones, using phones for community service delivery, and using fax machines that operate on the phone lines. Community members have expressed different opinions about the telephone service. Everyone was able to find out information about community events, and communicate easily with far away family members. Nevertheless, having a telephone in all the homes in Fort Severn meant that people started phoning each instead of visiting in person.

Community broadcasting in Fort Severn took the form of community radio and cable television. Fort Severn started its community radio station in the late 1970s. Radio quickly became the main means of communication in Fort Severn. The community radio station broadcast messages, information, music and programming of all kinds. One of the immediate impacts of this new form of communication was that radio opened up the sharing of information in the community. People learned things instantly rather than individuals phoning each other, or visiting to tell each other what had happened.

The community radio activities in Northwestern Ontario were inspired and supported by Wawatay. Wawatay Native Communications Society (www.wawataynews.ca) was formed in 1974 by the people of the Nishnawbe Aski Nation in Northern Ontario to provide radio, television, and print media services for the Ojibway, Cree and Oji-Cree communities in the region. Wawatay radio programming was and still is broadcast on the community radio. In Fort Severn, Wawatay broadcasts are primarily in Cree.

Eventually television was introduced into Fort Severn, and soon it became more popular than radio. Initially, there were only two channels. Community members with televisions in their home could pick up these two channels for free, but they had to watch whatever was showing at the time. This could be considered to be one influence into the development of the community TV service.

In 1991, community members developed a community cable television service. One community member bought a license for the system and the community set it up as a community business. Cable was brought to every house in the community, and the households pay a monthly charge. At its high point, the community cable system had 30 or 40 channels but currently it has less than 10 because of some technical problems. To keep the community members happy with the reduced service, the cable network is giving them free service for one year. Some community members are switching to satellite TV, where they can get more than 100 channels. For the past 10 years, the community cable TV system has had a community channel – Channel 9, used to advertise current events and news. Like the community TV, radio system, and new cell service, it is maintained by the Fort Severn e-Centre coordinator.

Community members identified various impacts of television in Fort Severn, including that certain types of information became widely and easily available for the first time, and people knew what was happening around the world from watching the news channels. On the other hand, the loss of language has been associated with

TV. Furthermore, people started spending more time watching TV and less time with family, friends, and walking around the community. Our recent research in Fort Severn found that watching television and listening to the radio remain very popular means of communication in Fort Severn.

6. THE DIGITAL ERA

The background to digital communication in the community is Fort Severn’s development of its digital infrastructure. Fort Severn has been working with its tribal council, Keewaytinook Okimakanak, since the 1990s to develop its broadband infrastructure and increase the options for digital communications for community members. The community has had dial-up access to the internet since the 1990s. In 1999, the community set up a wireless network to support community services, and in 2000, Fort Severn became part of Industry Canada’s SMART demonstration project that developed many broadband applications to support community members.

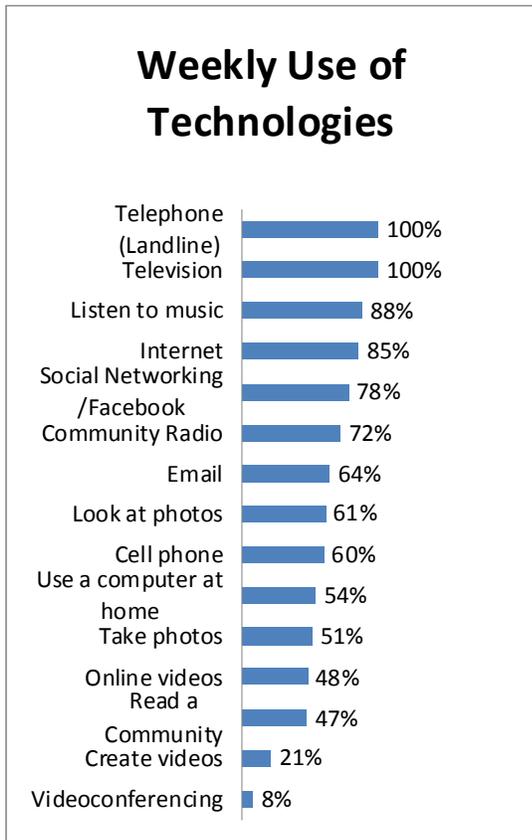


Figure 1. Weekly Use of Technologies by Community Members

Soon after, the community became part of the newly-created Northern Indigenous Community Satellite Network (NICSN) that also connects other remote communities in Ontario, Quebec and Manitoba. Fort Severn developed its own IP network and community internet service to the homes through a community-wide upgrade to the community cable TV network. All the digital communications in Fort Severn are possible because of the satellite connection, including the community-owned and managed Keewaytinook Mobile cellular phone service launched in late 2009 [1, 9]. Currently, Fort Severn uses broadband technologies for the delivery of a wide-range of community-focuses services including: education services (in the Washaho Elementary School school,

Keewaytinook Internet High School, WAHSA, and educational in-services via KO Telemedicine), community and government administration (e.g., Chief’s Forum), and health services (telemedicine, telemental health, elder visitations) [1].

With these new and enhanced forms of connectivity, Fort Severn community members have a variety of options to choose from when accessing computers and the internet for daily communications. The number of residents with computers in their home has increased over the years. According to the 2010 interviews, 43% of participants had a computer in their home. This is in comparison to a survey in 2000 that found that less than 20% of respondents had a computer in their home [10]. However, participants without a computer at home can go to the local E-Centre for access (or to the home of a family member or friend or their office).The internet is now central to daily communication in Fort Severn.

I think we get things done faster, for sure, faster and a little easier [with the internet].

-Fort Severn Community Member

Our study found that social networking is now the most popular means of everyday digital communication in Fort Severn – facebooking with members of the community, with members of other communities, and those in other areas of Canada. As illustrated in Figure 1, more than three-quarters of community residents interviewed access Facebook daily or weekly and almost as many update their Facebook site regularly. This figure is higher than reading information on a website, using email, instant text messaging on a computer, talking or texting on a cell phone, or accessing a computer at home.

Facebook and MyKnet.org are the two most popular social networking sites that community members use to share information and stay in touch with each other. MyKnet.org, first introduced in 1998, is a First Nations owned and managed home-page service for First Nation community members in the Sioux Lookout zone and was the most popular means of social networking in Fort Severn and other northern communities before Facebook took over that position.

“Like Facebook... if one of their sisters are out of town, but then she needs comfort or talking, then they can just talk to each other on Facebook.”

-Fort Severn Community Member

Facebook can be used for healthy and connective purposes. At the same time, cyber-bullying (disrespectful behavior directed toward someone, via the internet) is an example of a negative misuse of Facebook that unfortunately certain community members have experienced. Another issue for consideration is the security of using Facebook for certain activities, due to privacy limitations. A downside to the increased use of internet and digital technologies is that so much of our information can be available to unknown entities, and that misinformation can also be shared.

“Well the government is benefiting that they're somewhat knowing some of our stuff... and maybe some of it's not true”

-Fort Severn Community Member

This participant went on to explain that for this reason, it can be important to take control of the information that is put forward so as to determine the intent and message before any information is

shared – like if a community member was to create their own video on a topic. This underscores the importance of mindful and critical technology use, to be explored shortly (section 8).

7. A TRADITIONAL LIFESTYLE WITH DIGITAL COMMUNICATIONS

As mentioned earlier, a traditional lifestyle including hunting, trapping, and being out on the land is central to life in the Fort Severn community. Community members now use ICT to support and continue their traditional lifestyle and being out on the land. In a paper exploring the Keewaytinook Mobile community cellular service and community perceptions of it, one of the most cited reasons for wanting to use a cell phone was for safety while being out on the land [9]– for example in case a ski-doo broke down or some other accident.

“A cell phone in Fort Severn's a big deal, you know. I'm not sure what the range is, but when I first heard there was going to be a cell phone tower here, it would be good for the hunters, so if anyone in the range if they're out there stranded or if they need help, they would just call because satellite phones are really expensive to get.”

–Fort Severn Community Member

While nothing will replace traditional knowledge of the land, GPS and other ICT can provide useful navigational information.

“Traditional knowledge... means that you know almost every lake and river on the land... the difference is that you are a survivor on the land. With the new technology like GPS, it can take you where you want to go, but one thing that it doesn't tell you is the condition of the terrain. If you were to cross a creek during the night...and this little creek happens to be only about this thickness of ice — it's not frozen, eh — you'll be heading straight into the water. Even though that GPS tells you where your camp is, it doesn't tell you that. That's the problem with the new technology.”

–Fort Severn Community Member

Videoconferencing has proved useful for many activities in Fort Severn, including lands and resources activities. Fort Severn has been negotiating with the Ministry of Natural Resources over Polar Bear issues, using videoconferencing for these meetings. Furthermore, via the internet and MNR's website, community members and members of other First Nations and communities can support the people of Fort Severn. Those interviewed also saw value in using photos to capture meaningful images – whether of family members and treasured children, or of traditional lands.

“See old people, when they see those, they like them ... they really like them. That's their traditional land. They can name almost every picture where that is.”

–Fort Severn Community Member

Community members also reported being interested in seeing videos of Fort Severn featured on the Fort Severn website – there are currently some photos and videos available, but according to interview responses there was a strong interest in sharing more.

Those interviewed indicated a huge interest in traditional lifestyle videos – 87% said that was their preference. There was also interest in recording elders' stories, and historical information, using video – in order to keep a special record of that information for their community.

8. THINKING CRITICALLY

Mindful and purposeful technology use is a key component of the community-centered and holistic approach. Even though Fort Severn has taken a leadership role in developing, managing and owning its broadband infrastructure and services, community members had mixed perceptions about whether they as individuals were the ones “driving” the technology use or were in a more passive role.

“I think it's sort of driving us 'cause it's ... I'm really talking about the Internet, like we accept for it to come to our community and whatever comes through there. We don't regulate anything. Everybody has access to whatever they want and they get information whether it's good or bad. It does the driving. We don't do anything about it.”

–Fort Severn Community Member

Other community members felt a degree of control over their technology use, like one member who cited the specific example of using ICT to record a video or stories: you have the option of editing, deciding whether you will publish or share the video, and with what audiences (e.g., close family members, or YouTube). Other community members have harnessed ICT to support their business or educational goals. However, the first quote speaks to the importance of an ongoing dialogue and exploration of how to support wise, mindful and health community-centered ICT use. On this topic, several community members had suggestions for ways to increase more active, innovative uses of the technology in Fort Severn.

The importance of training was raised. One participant commented on the wealth of talent that is present in Fort Severn, and imagined what might be possible if community members could be better supported in using ICT in purposeful ways to support their goals (e.g., how they might use ICT to support ongoing business ventures, or other skills they might have). Individuals already at an advanced level of ICT use also indicated an interest in obtaining additional training, unfortunately resources to support these interests are always difficult to find. Additionally (and of no less importance), increased funding, resources (e.g., technologies, updated and well-equipped areas where community members can use technologies) and supplies are necessary.

9. CONCLUSIONS

Fort Severn First Nation has a history of tailoring its use of technologies to suit the needs of community members – whether canoes and snowshoes or ski-doods and videoconferencing. It has been said that technologies are tools, or extensions of ourselves; comparable to gliding through the water in a canoe. However, if technologies are used in ways that keep people apart, disconnection can result.

Fortunately, Fort Severn community members have found ways to use ICT as tools in reaching community goals and delivering community services. The community (as well as their strategic partners, like K-Net) has strived to apply a community-centered and

holistic approach to technology use. Community members have found many benefits to using ICT in their daily lives, including facilitating tasks and administrative duties, connecting people in Fort Severn with leaders and health professionals in other areas, keeping family members connected, accessing resources, information and education, and using ICT to compliment traditional knowledge when out on the land. Currently, Fort Severn delivers a range of community-centered services via broadband, including (and not limited to) community and government administration, education, and health [1].

As well as these positive aspects, many community members identified some negative impacts and consequences. It was common for participants to see a loss of personal connection, and sometimes health and fitness, linked to the introduction of certain ICT (telephone, television, internet). Also, due to Fort Severn's remoteness, prior to ICT there was substantial information that community members were much less exposed to. Many community members see a link between the advent of ICT and especially television, and a decrease in the everyday use of the Cree language. Nevertheless, if the technology is harnessed in mindful ways it can also be used to preserve and practice language - like the community members who enjoy listening to Wawatay programming or the trail radios, or video projects used to preserve elders' stories for a community archive.

Community members also identified how they could be better supported in using ICT innovatively and effectively. Suggestions include: training, resources (in some cases, materials/computers, etc.) and support (from various levels of leadership/community/etc.). In addition, awareness campaigns about K-Mobile or KOTM services could help individuals become more aware and critical consumers. For instance, it is likely that not everyone in the community is aware of how videoconferencing can be used to effectively communicate with family members who are away. Furthermore, there are challenges and negatives associated with using any kind of technology - bringing community members and strategic partners (Fort Severn leadership, KO, etc.) together to address these concerns - like the amount of coverage that K-Mobile offers to individuals out on the land - could help foster continued engagement and holistic use of technologies [9]. Supporting the dialogue on mindful and purposeful use of community-centered technology use can also be helpful in facilitating innovative and effective use of ICT and can be accomplished in many ways - for example, this collaborative paper. Dialogue and reflection on technology use will help maintain the community's holistic and community-centered ICT approach as they continue their communications journey.

To conclude, people in Fort Severn are utilizing the principles of OCAP by owning their network, establishing the controls needed in their community, accessing and developing the information and services they require, and possessing the capacity and means to manage and operate these services. The community members, community leadership, and strategic partners have worked together collaboratively to facilitate this. As well, under the UN's declaration, there remains significant work to be completed in developing equitable and affordable access to the resources required to continue this development and engagement with OCAP principles.

As years pass and the community continues to introduce changes to its communications infrastructure, new opportunities for using ICT in innovative ways for everyday communication will continue to open up for Fort Severn First Nation. Based on the information

gathered during this study, a Fort Severn Technology Showcase (http://fortsevern.firstnation.ca/tech_showcase) was created on the community's website to respectfully represent the history of technology use in the community. It is our hope that stories of future technology and communications activities in Fort Severn will be shared and accessible to everyone via this Showcase.

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