First Nations Innovation - Publications

Updated November 2013

The **First Nations Innovation** project is researching how remote and rural First Nation communities are using broadband technologies and applications in innovative ways. Our work covers three regions – Atlantic, Quebec and Ontario – in partnership with four organizations. For more information about our organizations, click on the partner name below:

- Keewaytinook Okimakanak
- Atlantic Canada's First Nation Helpdesk
- The First Nations Education Council
- The University of New Brunswick - Department of Sociology

You can download the First Nations Innovation information sheet / brochure from this link.

For a digital version of this document with hyperlinks, email: susanodo@unb.ca

http://www.fn-innovation-pn.com

First Nations Innovation - Publication List with Hyperlinks

This pdf document contains the references, abstracts and links to all our publications online – To access a publication, click on the hyperlink in the publication reference when you are online to link to a page where you can open the publication or save it to your computer. All our publications are available in English and some have been translated and are available in French.

To find a publication on a particular topic, search this document for any word or phrase you are interested in (some examples: education, infrastructure, health, social media, women, video, internet, First Mile, e-Community, Ontario, Quebec, Atlantic).

First Nations Innovation evolved from several previous projects with the same team - publications from VideoCom and First Mile are included here. The Social Sciences and Humanities Research Council of Canada (SSHRC) funds our work. You can also access publications from the earlier RICTA project (2005), some powerpoint presentations and a 1994 background article.

Our publications are numbered in chronological order and presented in this document in different colours according to the type of publication.

Book chapters and journal articles: have been peer-reviewed and published in academic venues and are listed in orange.

Conference papers and proceedings: have been presented at academic, policy, or specialized conferences. Most have been peer-reviewed. They are listed in green.

Reports and misc publications: document specific studies we conducted and other written resources and are listed in yellow.

Magazine and newspaper articles and briefs: easily-digested information about research results and activities are listed in grey.

Publication # Reference with hyperlink and abstract
56 (available in English) Reference: [Whiteduck, T., Beaton, B. (2013) Building First Nation Owned and Managed Fibre Networks Across Quebec. World Social Science Forum, Montreal, QC, Canada. October](#). **Abstract:** In Canada, small rural and remote communities continue to struggle to access equitable and affordable high speed internet connections that address local priorities and needs.The First Nations Education Council (FNEC) is working with their community partners across Quebec to plan and operate a First Nation owned and managed fibre network to deliver broadband connections throughout each community. Public and private partnerships were established by FNEC to fund and construct the regional and local networks connecting these rural and remote communities. The paper describes the history of this development along with its future goals. Sharing infrastructure and network support services with all the other service providers (health, education, administration, justice, policing, homes, etc) in each of these communities helps to sustain the ongoing operation and maintenance of the network.
55 (available in English) Reference: [McMahon, R., Whiteduck, T., Beaton, B. (2013) Shaping First Nations broadband policy in Canada: Indigenous community intermediary organizations in the age of austerity. World Social Science Forum, Montreal, QC, Canada. October.](#) **Abstract:** Politically autonomous First Nations have set up organizations that mediate their relationships with federal and provincial governments. These regional organizations have a broad mandate that includes technology as one component of their work. In this paper, we frame these organizations as 'community intermediaries' and demonstrate how one of their functions is to act as a bridge between remote First Nations and various federal and provincial government agencies. These intermediary organizations operate complex digital networks and applications while supporting their First Nation constituents to assert self-determined development goals in a complicated and dynamic multi-stakeholder environment.

54 (available in English)

Reference: [Beaton, B., Campbell, P. (2013) Settler Colonialism and First Nations E-Communities in Northwestern Ontario. World Social Science Forum, Montreal, QC, Canada. October.](#)

Abstract: Across Canada First Nation community leaders are adopting the e-Community approach for their local broadband development. E-Community is fueled by the desire of First Nations to own, control, and manage their local infrastructure and online services. The paper develops the concept of the importance of locally owned and managed telecommunication infrastructure supporting First Nation e-Community and local resilience. The First Nations e-Community framework provides choices for local people to remain in their communities and contribute to the growth and positive development in these challenging environments. The First Nations' struggle against settler colonialism to access their lands and resources by the colonial governments and their corporate partners continues today. Strong, resilient First Nations are now in a position to influence and support outcomes that benefit themselves, the lands and others in a positive manner.

53 (available in English)

Reference: [McMahon, R., Hudson, H., Fabian, L. (2013) Indigenous Broadband Policy Advocacy in Canada's Far North. The Role of Advocacy in Media and Telecom Policy: A by-invitation experts' workshop. New America Foundation. Washington, September](#).

Abstract: In 2012, Canada's communications regulator, the Canadian Radio-television and Telecommunications Commission (CRTC), initiated a consultation on infrastructure and services in the northern territories. The consultation included the CRTC's first public hearings in the far North, where remote and sparsely populated communities are currently served by a single terrestrial incumbent and a few satellite operators. A national group of indigenous broadband policy advocates seized on this opportunity to intervene in the broadband development process. The First Mile Connectivity Consortium, a nonprofit coalition of academic researchers and First Nations technology organizations, argued that Aboriginal organizations themselves could provide telecommunications services in many northern communities. This case study demonstrates how research and advocacy can be introduced in regulatory proceedings.

52 (available in English)

Reference: [Philpot, D., O'Donnell, S., Kenny, C. (2013) Face-to-Faces Work: Audience Response to First Nations Social Movement Videos. Canadian Communication Association, University of Victoria, June 5-7.](#)

Abstract: There has been considerable public interest in the role of alternative media in protest movements and social movements in general. Virtually all of the commentary has focused on the production and dissemination of these alternative media forms by social movement actors rather than the reception of these alternative messages by audiences. The current study begins this discussion by applying a critical analysis to the results of an exploratory study of the reception by the general public of online videos about First Nations. The methodology includes an empirical study of how people viewed and responded to two online videos about First Nations culture. Although both our study and analysis is very exploratory we believe it is an important contribution because of the lack of previous research on this topic.

51 (available in English)

Reference: Gurstein, M., Beaton, B., O'Donnell, S., Whiteduck, T. (2013) Making Information Technologies Work at the End of the Road: Using Broadband to Build Sustainable Remote and Rural Communities. Theory of Broadband: Regulation, Networks and Applications. A By-invitation Experts Workshop, The Columbia Institute for Tele-Information, Columbia University, New York City, USA. May 30-June 1.

Abstract: In this paper we discuss both how the Internet and broadband networks generally are supporting a centralization of power and also how they have become the basis for a very significant decentralization of power. We document the development of this decentralizing counter-trend within the context of a "first mile" approach to telecommunications - specifically, the case of First Nations (indigenous) people living in small, jurisdictionally autonomous communities in remote parts of Canada. The paper will further examine how a community-based (community informatics) approach to the institutional management of the telecommunications infrastructure and applications has in turn supported and enabled the development of a range of community-based semi-autonomous institutions and services -- including in education, health and governance -- developed and managed and responding to specific local requirements at the "edge."

50 (available in English)

Reference: O'Donnell, S., Johnson, L., Katepetum-Schultz, T., Burton, K., Whiteduck, T., Mason, R., Beaton, B., McMahon, R., Gibson, K. (2013) Videoconferencing for First Nations Community-Controlled Education, Health and Development. *The Electronic Journal of Communication.* 23 (1&2)

Abstract : Videoconferencing is a powerful tool that First Nations in Canada are using to create communication spaces for local control of community services and community development. For First Nations in Canada, videoconferencing sessions are alternative public spheres for engagement and interaction outside of mainstream control. This article discusses how First Nations are using videoconferencing to create and support community-controlled education and training, health services, and other community development activities. Perspectives of a videoconferencing bridge coordinator and a case study from Keewaywin First Nation are discussed.Challenges for videoconferencing in First Nations are reviewed, followed by some thoughts about the future of videoconferencing in these unique communities.

49 (available in English)

Reference: First Nations Innovation (2013) First Nations Innovation Licence to Publish: A template for a form used to retain the copyright of publications by First Nations. First Nations Innovation Project: March.

Abstract: This licence template is used by the First Nations Innovation project. The purpose of the licence is to retain copyright for First Nations for articles published in journals, books and other publications. The licence can be used instead of signing over copyright to a publisher for works produced by authors working with First Nations. We have made this licence template available in Word format so that it can be modified and used by other First Nation authors, organizations and projects. Our template is based on the licence used by the Government of Canada to retain copyright for the Crown for articles published by authors who are government employees - we believe that by using this licence the copyright is retained by First Nations for articles published by authors working with First Nations.

48 (available in English)

Reference: Carpenter, P., Gibson, K., Kakekaspan, C., O'Donnell, S. (2012). *How women in remote and rural First Nation communities are using information and communication technologies. Connecting the Future: Rural Broadband Technology, Policy and Impact. Queens University School of Business, Kingston, Ontario, December*.

Abstract: First Nations women have a strong role guiding the success of their family and their community. In the past, women nurtured their family, ensuring food and safety for their family. These responsibilities are still true today with the added challenges and opportunities of modern day life. After elementary school, many First Nations children living in remote and rural communities move to urban areas for high school education, and with the adoption of information and communication technologies (ICT) there are sometimes fewer community interactions as people stay at home more instead of meeting in person. The study explored how First Nations women are using ICT and if the technology can address some of their challenges and open up new opportunities. Two hundred and thirty one women living in remote and rural First Nation communities in Northern Ontario completed an online survey, sharing their thoughts and experiences with regard to: ICT use in daily life, ICT for health and wellness, ICT for cultural preservation, and what is needed to support their effective use of ICT. The findings suggest that the women are active users of ICT, using the internet for frequent communication with people living in their own communities along with other communities and elsewhere in Canada. The women are also familiar with telemedicine, use the internet in a variety of ways to preserve their culture, and identified many strategies for supporting their effective use of ICT. Recommendations for ways forward are discussed.

47 (available in English)

Reference: Whiteduck, T.,Beaton, B., Burton, K., & O'Donnell, S. (2012) Democratic Ideals Meet Reality: Developing Locally Owned and Managed Broadband Networks and ICT Services in Rural and Remote First Nations in Quebec and Canada. Keynote paper for the Community Informatics Research Network (CIRN) Conference, Prato, Italy, November.

Abstract: This paper is based on a keynote presentation at the 2012 Community Informatics Research (CIRN) conference in Prato, Italy by Tim Whiteduck, Technology Director at the First Nations Education Council (FNEC). The paper was co-written with the FNEC research partners. First Nations in Canada are part of a complex web of relationships and networks that share information, resources and learning related to broadband and Information Communication Technologies (ICT). First Nation community leaders, through their national organization the Assembly of First Nations (AFN), have adopted the e-Community as an overarching approach for broadband development. This development is fueled by the desire by First Nations to own, control, and manage their local infrastructure. Regional organizations, including the regional management organizations (RMOs) for the First Nations SchoolNet program, are key players collaborating with communities to support their use of broadband and ICT. In particular, the videoconferencing network built by the RMOs in collaboration with the communities was and continues to be a catalyst for increased broadband development. FNEC, the RMO for Quebec is discussed in detail, including its technology development and related activities. FNEC works with partner organizations across Canada, notably the Keewaytinook Okimakanak (KO) tribal council in northwestern Ontario and Mi'kmaw Kina'matnewey (MK) in the Atlantic region. Together the three organizations are also partners with the University of New Brunswick and Simon Fraser University on several research and outreach projects, two of which - First Mile and VideoCom / First Nations Innovation- are briefly discussed.

46 (available in English)

Reference: McKenzie, O., Kakekaspan, C., Gibson, K., O'Donnell, S., Kakepetum-Schultz, T. (2012) Perspectives of Rural and Remote First Nation Community Members Toward Telehealth Services: The Case of Keewaytinook Okimakanak Telemedicine (KOTM). Reported presented at the Canadian Rural Health Research Society - Rural and Remote Health Research Conference – Creative Approaches, Levis, Quebec, October.

Abstract: This report and presentation is based on an online survey of K-Net email account holders in communities in Northwestern Ontario, conducted in November 2011, and their responses and perspectives toward telehealth services.

45 (available in English)

Reference: Molyneaux, H., O'Donnell, S., Kakekaspan, C., Walmark, B., Budka, P., Gibson, K. (2012) Community Resilience and Social Media: Remote and Rural First Nations Communities, Social Isolation and Cultural Preservation. Paper for the 2012 International Rural Network Forum, Whyalla and Upper Spencer Gulf, Australia, 24-28 September.

Abstract: Community resilience in First Nations includes ties to people both inside and outside the community, Intergenerational communication, sharing of stories, and family and community connectedness. This study, based on a survey of internet users in the Sioux Lookout region of Northwestern Ontario, explores the link between social networking sites (SNS) and community resilience. The region is home to some of the most isolated and rural First Nations (indigenous) communities in Canada. Cultural and familial links between these communities are strong, yet until the fairly recent widespread use of the internet, maintaining regular communications to strengthen cultural ties was challenging. This study examines the links between travel and communication online, how social media is used to preserve culture and maintain communication, and the implications of social networking for community resilience.

44 (available in English)

Reference: Whiteduck, G., Tenasco, A., O'Donnell, S., Whiteduck, T. & Lockhart, E. (2012) Broadband-Enabled Community Services in Kitigan Zibi Anishinabeg First Nation: Developing an e-Community Approach. Paper for the 2012 International Rural Network Forum, Whyalla and Upper Spencer Gulf, Australia, 24-28 September.

Abstract : Kitigan Zibi Anishinabeg First Nation, the largest Algonquin community in Canada, is recognized as a leader for their community services. For our collaborative study, we conducted a qualitative analysis of interviews with community services staff in Kitigan Zibi Anishinabeg.The interviews explored questions of technology and community, including their current successes, challenges, and future potential. Kitigan Zibi is developing a strategy to integrate communication infrastructure and information, and communication technologies (ICT) into services that promote community,economic, social, cultural, and intellectual development. The discussion focuses on how the community can integrate a holistic "e-Community" approach into its strategy.

43 (available in English)

Reference: Gibson, K., Thomas, L., O'Donnell, S., Lockhart, E., & Beaton, B. (2012). *Co-creating community narratives: how researchers are engaging First Nation community members to co-write publications.* Paper presented at the Qualitatives Analysis Conference, St. John's, NL.

Abstract: Researchers working with First Nations have heard: "We have been researched to death." Given this reputation for research, how can researchers working with First Nations turn this situation around? How can we collaboratively conduct respectful research and engage First Nations meaningfully? How can we ensure that the narratives we weave in research publications from interview transcripts strongly reflect the voices of community members, and that our publications meet the needs of communities? One way is for members of First Nation communities collaborating in the research to co-write research publications. The paper discusses some practical ways that researchers can do this, based on our experiences with conducting research about technology with rural and remote First Nation community collaborators. We discuss what has been successful and where we need to work harder to be more inclusive of the experiences and situations of community members.

42 (available in English)

Reference: Lockhart, E., Tenasco, A., Whiteduck, T. & O'Donnell, S. (2012) ICT Use Between School and Home in Kitigan Zibi Anishinabeg First Nation: Challenges and Opportunities for Moving Forward Collectively. Canadian Communication Association Conference, University of Waterloo, Ontario, May 30.

Abstract: Kitigan Zibi Anishinabeg First Nation is an innovative rural community in Quebec. Located 130 kilometers north of Ottawa, it is the closest First Nation to the Canadian capital. In both population and territory, Kitigan Zibi is the largest of the ten Algonquin communities. Broadband connectivity and information and communication technologies (ICT) are important to the community and incorporated into everyday operations. This paper explores the use of technology in the education sector in Kitigan Zibi, in particular the situation of having technology readily available at school and less so at home. This transition from a technology-filled classroom to limited or no ICT access at home is a challenge, not only for individual students and their families but also for the community as a whole.

41 (available in English)

Reference: Walmark, B., Gibson, K. Kakekaspan, C., O'Donnell, S., & Beaton, B. (2012). How First Nation Residents in Remote and Rural Communities in Ontario's Far North are using ICT and Online Services Supported by Keewaytinook Okimakanak. Paper presented at the Canadian Communication Association (CCA) Annual Conference, University of Waterloo, Ontario, May 30

Abstract : For the isolated and rural communities in the Sioux Lookout region of Northwestern Ontario, communication links are vital. They connect community members with each other, with members of other communities, and with people living elsewhere in Canada and around the world. Broadband networks support many of the community and social services in this region. Keewaytinook Okimakanak (KO), Northern Chiefs in Oji-Cree, is a tribal council supporting and providing broadband-enabled services to many of the region's remote and rural First Nations. In late 2011, an online survey was conducted of community members in the region. Participants responded to questions about how they are using ICT in their daily lives, how they are using KO's broadband-enabled services - specifically KO Telemedicine (KOTM) and the Keewaytinook Internet High School (KiHS) - and what supports they need to use these technologies and services more effectively. This paper discusses some of the survey findings.

40 (available in English)

Reference: [Simon, J., Burton, K., Lockhart, E. & O'Donnell, S. (2012) Post-Secondary Distance Education: Experiences of Elsipogtog First Nation Community Members. Presented at the Atlantic Native Teachers Education Conference (ANTEC), Cape Breton, Nova Scotia, May 17](#) .

Abstract: Post-secondary distance education is an option for community members living in many Atlantic First Nations. This paper includes preliminary results from research based on interviews with community members of Elsipogtog First Nation in New Brunswick. Most community members interviewed had taken post-secondary courses by distance education while living and working in their community. The focus is their experiences of distance education, in particular with videoconferencing and online web-based course delivery systems.

39 (available in English)

Reference: [Beaton, B., Gibson, K., Kakekaspan, C., & O'Donnell, S. (2012) KO/K-Net Report: Survey of Community Connectivity Northwestern Ontario. Online presentation from Sioux Lookout, Ontario and Fredericton, New Brunswick, April 2012](#).

Abstract: This report and presentation is based on an online survey of K-Net email account holders in communities in Northwestern Ontario, conducted in November 2011.

38 (available in English)

Reference[: Beaton, B., Kakekaspan, C., & O'Donnell, S. (2012) KO/K-Net Report: Survey of Connectivity in Keewaytinook Okimakanak Communities. Online presentation from Sioux Lookout, Ontario and Fredericton, New Brunswick, April, 2012.](#)

Abstract: This report and presentation is based on an online survey of K-Net email account holders in KO communities, conducted in November 2011.

37 (available in English)

Reference: [Gibson, K., Kakekaspan, M., Kakekaspan, G., O'Donnell, S., Walmark, B., Beaton, B., and the People of Fort Severn First Nation (2012) A History of Communication by Fort Severn First Nation Community Members: From Hand Deliveries to Virtual Pokes. Proceedings of the iConference 2012, Toronto, Ontario, February.](#)

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 use broadband. Critical thinking about technology use, and what is needed to support continued innovative and community-centered use, are explored.

36 (available in English)

This article is from the First Mile project that proceeded First Nations Innovation

Reference: McMahon, R.,O'Donnell, S., Smith, R., Walmark, B., Beaton, B., Simmonds, J. (2011). Digital Divides and the 'First Mile': Framing First Nations Broadband Development in Canada. *The International Indigenous Policy Journal*,2(2).

Abstract: Across Canada, rural and remote First Nations face a significant 'digital divide'. As self-determining autonomous nations in Canada, these communities are building broadband systems to deliver public services to their members and residents. To address this challenge, First Nations are working towards a variety of innovative, locally driven broadband development initiatives. This paper contributes a theoretical discussion that frames our understanding of these initiatives by drawing on the paradigm of the 'First Mile'. We argue that broadband development policy in Canada must be re-framed to address the specific needs of First Nations. The First Mile position foregrounds community-based involvement, control, and ownership: a consideration we suggest has particular resonance for First Nations. This is because it holds potential to move beyond the historical context of paternalistic, colonial-derived development policies, in the context of broadband systems development. We argue First Nations broadband projects offer on-the-ground examples of a First Mile approach, and call for more research in this area. This article was produced by the First Mile project, a collaboration led by Simon Fraser University.

35 (available in English and French - click here for the French version)

This report is from the First Mile project that proceeded First Nations Innovation

Reference: McMahon, R., O'Donnell, S ., Smith, R., Woodman Simmonds, J., Walmark, B. (2010) Putting the 'last-mile' first: Re-framing broadband development in First Nations and Inuit communities. Vancouver: Centre for Policy Research on Science and Technology (CPROST), Simon Fraser University, December.

Abstract: This report is from the First Mile project, a collaboration led by Simon Fraser University. The report paints a picture of First Nations and Inuit community-based broadband networks and information and communication technologies in Canada. It highlights the very different levels of broadband infrastructure and connectivity that exist across the country. Even at the end of the first decade of the 21st century, many of these communities remain unserved or underserved when compared to their neighbours in urban Canada. But despite a lack of abundant broadband infrastructure and robust connectivity services, in many cases these communities are planning, administering, managing and, sometimes, owning digital networks and technologies. They are also applying these technologies to deliver broadband-enabled public and community services in areas like health, education, government, culture and language. Despite decades of innovative, community based work in this area, to our knowledge this is the first comprehensive study and record of these activities.

34 (available in English and French - click here for the French version)

Reference: O'Donnell, S., Kakekaspan, G., Beaton, B., Walmark, B., Mason, R., Mak, M. (2011) A New Remote Community-Owned Wireless Communication Service: Fort Severn First Nation Builds Their Local Cellular System with Keewaytinook Mobile. *Canadian Journal of Communication*, 36 (4) 663-673.

Abstract: Fort Severn First Nation is a remote fly-in community on Hudson Bay. The lifestyle reflects a deep respect for and connection to the land. The Keewaytinook Okimakinak (KO) Tribal Council has developed the Keewaytinook Mobile (KM) service in remote First Nation communities in Northern Ontario. In November 2009, Fort Severn and KO established the KM service in the community. This study traces the history of KM and its implementation in Fort Severn and describes how and why community members are using the service. The analysis is based on interviews and discussions with community members during three research visits from March 2010 to March 2011.

33 (available in English)

Reference: O'Donnell, S., Kakekaspan, M., Beaton, B., Walmark, B., Gibson, K. (2011) How the Washaho Cree Nation at Fort Severn is Using a "First Mile Approach" to Deliver Community Services. Paper presented at the Telecommunications Policy Research Conference, Arlington, Virginia, USA, September.

Abstract: Fort Severn Washaho Cree Nation is a small, remote northern community on the Severn River near Hudson Bay in Ontario. The community services delivered in Fort Severn are managed and controlled by the local leadership, working in collaboration with their regional tribal council Keewaytinook Okimakanak and other strategic partners. The First Mile is both an emerging policy approach and a framework that supports holistic and community-centred broadband development and use by First Nations. First Mile focuses on community management and control of local broadband infrastructure and services. The paper discusses how Fort Severn First Nation is putting First Mile concepts into action.

32 (available in English and French - for the French version click here)

Reference: Gibson,K., Coulson, H., Kakepetum-Schultz, T., O'Donnell, S. (2011) Mental health professionals' perspectives of telemental health with remote and rural First Nations communities. *Journal of Telemedicine and Telecare* 2011; 17: 263-267.

Abstract: We conducted an online survey and interviews of mental health workers in Canada who reported experience in working with rural and remote First Nations (although not necessarily telemental health). Sixty-three respondents (of the 164) to the online survey reported experience in working with clients in remote and rural First Nations. Only 16 of the online survey respondents with remote and rural First Nations experience reported having received training in videoconferencing use. A quantitative data analysis was used to explore their perceptions of usefulness and ease of use of telemental health, as well as the relationships among these constructs. Advantages, disadvantages and challenges in using the technology were identified from the qualitative data. Promising ways forward include incorporating traditional practices and the Seven Teachings into telemental health services.

31 (available in English and French - for the French version click here)

Reference: Gibson KL, Coulson H, Miles R, Kakekakekung C, Daniels E, O'Donnell S. Conversations on telemental health: listening to remote and rural First Nations communities . *Rural and Remote Health* 11 (online), 2011: 1656.

Abstract: Telemental health involves technologies such as videoconferencing to deliver mental health services and education, and to connect individuals and communities for healing and health. In remote and rural First Nations communities there are often challenges to obtaining mental healthcare in the community and to working with external mental health workers. Telemental health is a service approach and tool that can address some of these challenges and potentially support First Nations communities in their goal of improving mental health and wellbeing. Community members' perspectives on the usefulness and appropriateness of telemental health can greatly influence the level of engagement with the service. It appears that no research or literature exists on First Nations community members' perspectives on telemental health, or even on community perspectives on the broader area of technologies for mental health services. Therefore, this article explores the perspectives on telemental health of community members living in two rural and remote First Nations communities in Ontario, Canada.

30 (available in English)

Reference: [Gibson, K., Gray-McKay, C., O'Donnell, S., and the People of Mishkeegogamang. (2011). Mishkeegogamang First Nation Community Members Engage with Information and Communication Technologies. Canadian Communication Association Conference, Fredericton, June 1-3.](#)

Abstract: Mishkeegogamang First Nation is a rural Ojibway community in Northwestern Ontario. Mishkeegogamang community members of all ages use a wide array of information and communication technologies (ICT) as tools in daily life, and as a means to support individual and community goals. This collaborative paper tells the story of how Mishkeegogamang uses ICT for community development, drawing on 17 interviews with community members, and several community member profiles. Community informatics theory will help guide the interpretation of the findings. A broad range of ICT use by community members will be explored, including the Mishkeegogamang website, the busy yet invisible use of social networking sites, youth and ICT, ICT for health and education, and ICT to support traditional activities. Finally, a section on challenges and needs for facilitating ICT use is also provided.

29 (available in English)

Reference: [O'Donnell, S., Kakekaspan, G., Walmark, B., Mason, R., Mak, M. (2011) Keewaytinook Mobile in Fort Severn First Nation. Canadian Communication Association Conference, Fredericton, June 1-3.](#)

Abstract: Fort Severn First Nation is a remote fly-in Cree community on Hudson Bay. About 400 people live in the community, and their lifestyle reflects a deep respect for and connection to the land. In November 2009, Fort Severn and its tribal council, Keewaytinook Okimakanak, established Keewaytinook Mobile (KM) service in the community. KM, an innovative community-owned and managed GSM cellular and data service, is an example of self-determination applied to telecommunications. It is also the result of a number of strategic partnerships that came together to address local needs and priorities. This paper includes a review of the history of Keewaytinook Mobile and its implementation in Fort Severn First Nation, and a study of how and why community members are using or not using the service. The analysis is based on interviews with 42 community members conducted in March 2010 and a follow-up discussion with community members in November 2010. The paper discusses the challenges, opportunities and ways forward for KM in Fort Severn.

Note: This publication was later revised and published as a journal article, publication #34, which is also available in French.

28 (available in English and French - [for the French version click here](#))

Reference: [Gratton, M-F., O'Donnell, S. (2011) Communication Technologies for Focus Groups with Remote Communities: A Case Study of Research with First Nations in Canada. *Qualitative Research.* 11(2): 159-175.](#)

Abstract: Communication technologies offer qualitative researchers more options for conducting research with remote communities. It is not always possible for researchers to travel to conduct focus groups and interviews in person, especially when travel is prohibitively time-consuming and expensive. This reason is often given to explain the lack of qualitative research with participants living in remote First Nations (Aboriginal) communities in Canada. This manuscript presents a case study of a research method developed in collaboration with our research partner K-Net and KORI (Keewaytinook Okimakanak) in northwestern Ontario. The specific study investigated preferences for online health information for First Nations people living in remote communities. Working with K-Net, we developed a method to use multi-site videoconferencing for focus groups – live visual and audio exchange between the researcher in Ottawa and participants in multiple remote First Nations communities. Our conclusion encourages other researchers to try this innovative method to include more remote First Nations community members in participatory research projects.

27 (available in English)

Reference: [Woodman Simmonds, J., Wasacase, T., Ward, S., O'Donnell, S. (2011) Videoconferencing User- Guide for Teachers and Students Participating in Post-Secondary Education Courses in Remote and Rural First Nations Communities. Fredericton: The VideoCom Project](#)

Abstract: This user-guide is for teachers and students involved in post-secondary distance education (especially in remote and rural First Nations communities) who are considering using videoconferencing technology to communicate. It assumes that some people will have little or no experience with videoconferencing and might also have objections to the technology itself or to the ways it is often marketed as an absolute solution to accessing quality education.

26 (available in English)

Reference: [Woodman Simmonds, J., Wasacase, T., O'Donnell, S. (2010) Post-Secondary Distance Education for First Nations, Métis and Inuit Learners Living in Remote and Rural Communities: An Annotated Bibliography. Fredericton: The VideoCom Project](#)

Abstract: This report was prepared to assist educators and people involved in education and learning in First Nations, Métis and Inuit communities. It is, to our knowledge, the most comprehensive annotated bibliography available on this topic. The bibliographic search focused on literature that discusses 1) best practices employed in post-secondary distance education in First Nations, Métis and Inuit communities, 2) funding for post-secondary distance education, and 3) policy issues related to ICT in the First Nations and Inuit contexts. Our report includes both peer-reviewed publications and grey literature.

25 (available in English)

Reference: [Gibson, K., Coulson, H., Miles, R., Kakekayskung, K., Daniels, B., O'Donnell, S. (2010) Listening to the Communities: Perspectives of Remote and Rural First Nations Community Members on Telemental Health. Rural Health Conference: Connecting Research and Policy. Fredericton, Canada, September 23-25.](#)

Abstract: Telemental health involves technologies such as videoconferencing to deliver mental health services and education, and to connect individuals and communities for healing and health. In remote and rural First Nations there are often challenges both to obtaining mental healthcare within the community and to working with external mental health workers. Telemental health is a service approach that can address some of these challenges and potentially support First Nations in their goal of improving mental health and well-being. This paper explores the perspectives on telemental health of community members living in two rural and remote First Nations communities in Ontario: Mishkeegogamang and Fort Severn. Using a participatory research design, we interviewed 59 community members, asking about their experiences with and thoughts on using technologies and their attitudes toward telemental health specifically. A thematic analysis of this qualitative data, and a descriptive quantitative analysis of the information reveal the diversity of attitudes among community members.

Note: This publication was later revised and published as a journal article, publication #31, which is also available in French.

24 (available in English)

Reference: [O'Donnell, S., Milliken, M., Chong, C., Walmark, B. (2010) Information and Communication Technologies (ICT) and Remote and Rural First Nations Communities: An Overview. Presented at the Canadian Communication Association Annual Conference (CCA 2010) Montreal, June 1-3.](#)

Abstract: Information and communication technologies (ICT) are valuable tools used to establish and maintain connections within and between remote and rural First Nations communities across Canada, and between urban centres and these communities. For the past decade, various research projects have investigated different aspects of ICT use by and with these communities. However, an overview of this research has not been published. This paper, a literature review, explains: the history of ICT and First Nations communities, policies and partnerships for broadband services in First Nations, how remote and rural First Nations are accessing and using ICT, and how to make the broadband networks and ICT sustainable.

23 (available in English)

Reference: [O'Donnell, S., Molyneaux, H., Gorman, E., Milliken, M., Chong, C., Gibson, K., Oakley, P., Maitland, J. (2010) Information and Communication Technologies to Support Health and Wellness in Remote and Rural First Nations Communities: Literature Review. Fredericton: National Research Council, May, 136 pages.](#)

Abstract: This report is a comprehensive overview of how remote and rural First Nations and their partners and collaborators are using information and communication technologies (ICT) to support health and wellness in their communities. The report authors hope it will be useful for evidence-based program and policy development. It may also spark ideas about how ICT can be improved and new technologies developed to meet community needs.

22 (available in English - [for the French version click here](#))

Reference: [O'Donnell, S., Walmark, B., Hancock, B-R. (2010) Videoconferencing and Remote and Rural First Nations, in White, J., Peters, J., Beavon, D., Dinsdale, P. (eds) Aboriginal Policy Research Volume 6: Learning, Technology and Traditions. Toronto: Thompson Educational Publishing: 128-139.](#)

Abstract: This article explores why visual communication is important for First Nations, the prevalence and purposes of videoconferencing in non-institutional settings, and the challenges the communities experience using this technology. The central theme is that videoconferencing is a vital tool for remote and rural First Nations and in order for it to become widely used, the technology has to be a part of everyday life in communities and not just restricted to telehealth and distance education.

21 (available in English and French - [for the French version click here](#))

Reference: [McKelvey, F., O'Donnell, S. (2009) Out from the Edges: Multi-site Videoconferencing as a Public Sphere in First Nations. *Journal of Community Informatics* 5(2).](#)

Abstract: This study uses video analysis and semi-structured interviews to describe a case of community use of multi-site videoconferencing. The event connected First Nation communities across Canada for simultaneous audio-visual exchange, hosted by K-Net Services in Ontario. The research project VideoCom organized the event to study the feasibility of public meetings through videoconferencing and to document an example of community uses of the technology. Our report suggests videoconferencing creates a public sphere in these First Nations communities. K-Net Services works to develop their videoconferencing infrastructure to better support this public space. The public sphere is way of thinking about how media practices have a political effect and how they contribute to the well-being of the community. The case meeting shows a potential new opportunity to further integrate videoconferencing into community development.

20 (available in English and French - for the French version click here)

Reference: Milliken, M., O'Donnell, S., Gorman, E. (2009) How K-Net and Atlantic Canada's First Nation Help Desk are using videoconferencing for community development. *Journal of Community Informatics* 5(2).

Abstract: K-Net, Keewaytinook Okimakanak (KO) in Sioux Lookout, Ontario, Atlantic Canada's First Nation Help Desk in Membertou, Cape Breton, Nova Scotia, and the First Nation Education Council in Wendake, Quebec initially set up videoconferencing networks for educational and health purposes. Since the mid-90s, the applications, reach and scope of these communication networks has expanded to include cultural, social, and community development activities. Interviews with the technical and administrative staff reveal how the relationship-building approach taken by the organizations supports community development in the First Nations communities they serve.

19 (available in English and French - for the French version click here)

Reference: Perley, S. (2009) Representation and Participation of First Nations Women in Online Videos. *Journal of Community Informatics* 5(1).

Abstract: With the rise in websites for video sharing on the Internet and the increase in resources to create and upload videos, there is potential for First Nations women to make use of this alternate public sphere for representing issues they cannot normally address through mainstream media. A critical analysis of the representation and participation of First Nations women in online videos provides some insight into how First Nations women are currently using new information and communication technologies to question and challenge mainstream media assumptions and representations of First Nations women. The article explores the potential of online videos produced by First Nations women to provide an alternate public sphere to represent themselves and their perspectives and promote social change.

18 (available in English)

Reference: Gibson, K., Kakepetum-Schultz, T., Coulson, H., O'Donnell, S. (2009). Telemental Health with Remote and Rural First Nations: Advantages, Disadvantages, and Ways Forward. National Aboriginal Health Organisation (NAHO) Conference. Ottawa, November 24-27.

Abstract: Remote and rural First Nation communities have limited mental health services compared to urban communities yet their needs are similar and sometimes greater. Community members living in remote, isolated communities requiring mental health services are usually faced with two choices: having no service or leaving their community to access services in larger centres. Certain First Nation communities offer a third choice: using telemental health delivered via videoconferencing to provide clinical mental health services. Like all technology uses, telemental health services have advantages and disadvantages for the individual and the community.

Note: This publication was later revised and published as a journal article, publication #32, which is also available in French.

17 (available in English)

Reference: Molyneaux, H., O'Donnell, S. (2009). ICT and Health and Wellness in Remote and Rural First Nations Communities: A Social Determinants of Health Perspective. Canadian Society of Telehealth Conference (CST 2009), Vancouver, BC, October 3-6.

Abstract: The topic of information and communication technologies (ICT) for health is generally framed as telehealth and other technology processes that enable delivery of mainstream health services. However First Nation communities are also using ICT for community development activities that contribute to improved health and wellness. Based on the preliminary results of a literature review on how ICT is being used in remote and rural First Nations, this paper uses a social determinants of health perspective to begin to create a broader understanding of how ICT can contribute to community health and wellness in remote and rural First Nations.

16 (available in English)

Reference: [Gibson, K., Simms, D., O'Donnell, S., & Molyneaux, H. (2009). Clinicians' Attitudes toward the Use of Information and Communication Technologies for Mental Health Services in Remote and Rural Areas. Canadian Society of Telehealth Conference (CST 2009), Vancouver, BC, October 3-6.](#)

Abstract: Little research exists regarding clinicians' attitudes towards the use of information and communication technologies (ICT) in clinical service provision – particularly within populations such as First Nations and Operational Stress Injury (OSI) clients. These clients may be particularly well served by technologies such as videoconferencing which allow clinicians to service these clients, many of whom are located in remote and rural geographical locations. However, adoption of these services is dependent upon on clinicians' willingness to use these technologies. In this paper we discuss the results of qualitative and quantitative analysis of both survey and interview responses with a specific emphasis on clinicians' attitudes towards use of ICT in service delivery in the present and future. Further, we explore successes, challenges and barriers to the use of technology as well as suggestions for future directions for research.

15 (available in English and French - [for the French version click here](#))

Reference: [O'Donnell, S., Perley, S., Walmark, B., Burton, K., Beaton, B., and Sark, A. (2009) Community Based Broadband Organizations and Video Communications for Remote and Rural First Nations in Canada. In Stillman, L., Johanson, G., and French, R., editors, *Communities in Action*. Newcastle upon Tyne, UK: Cambridge Scholars Publishing. 107-119](#).

Abstract: This research demonstrates how two community-based First Nations' organizations use video communications on broadband networks to support socio-economic development. This study situates K-Net and the Atlantic Help Desk within a broader social movement, working toward self-determination for First Nations in Canada, through the use of video communications.. Video communications within broadband networks include videoconferences (live and archived) and online videos. The research methodology includes an analysis of hundreds of videoconferences and videos archived by the two organizations as well as interviews with key informants.

14 (available in English and French - [for the French version click here](#))

Reference: [O'Donnell, S., Perley, S., Simms, D., Hancock, B-R. (2009) Video Communication Roadblocks Facing Remote Indigenous Communities. *IEEE Technology and Society Magazine*. 28 (2) Summer. pp 16-22.](#)

Abstract: For Canada's remote and rural communities, video communications provide a vital lifeline. This article discusses the challenges for video communications in remote and rural First Nation (Indigenous) communities. Central to our analysis are social and technical issues as well as the ICT experiences of community-based organizations and community members. We use an analytical framework to identify challenges in four categories: technical infrastructure, the interactions of the users with the technical infrastructure, the production and reception of audio-visual content, and the organizational and social relations. Our findings underline the need for community capacity building to address these challenges and use video communications to its full potential.

13 (available in English)

Reference: Milliken, M., O'Donnell, S. (2009). Communication in Place: Videoconferencing for First Nation Community Development. Presented at the Canadian Communication Association Annual Conference (CCA 2009), Carleton University, Ottawa, May.

Abstract: One definition of globalization suggests that the social relations traditionally associated with specific territorial locations have been transformed, and that physical distance is less of an impediment to communication and exchange than it used to be (Held, McGrew, Goldblatt, & Perraton, 1999). However, when the costs associated with travel to and from remote and rural First Nation communities are calculated, social and geographic relations still restrict opportunities for face-to-face communication and access to resources. Technology such as videoconferencing has been a powerful tool for overcoming these barriers; it enables people to stay where they are "from", and still engage in face-to-face audio and visual communication with people at one or more locations anywhere in the world.

Note: This publication was later revised and published as a journal article, publication #20, which is also available in French.

12 (available in English)

Reference: Gratton, M-F., O'Donnell, S. (2009). Integrating New Media into Communication Research: Multi-site Videoconferencing for Focus Groups with Remote First Nation Community Members. Presented at the Canadian Communication Association Annual Conference (CCA 2009), Carleton University, Ottawa, May.

Abstract: New media offer social science researchers more options for conducting research. Many researchers have been using text-based exchanges on the Internet as a data collection method. However some situations do not lend themselves to text-only exchange; a prime example is interviews with research participants from a cultural or community background that is outside the researchers' daily frame of reference. In this situation, visual cues and face-to-face contact are essential for conveying information that will build trust and comfort levels between participants and the researcher. Conversely, it is not always possible for researchers to travel to conduct focus groups and interviews in person, especially when travel is prohibitively time-consuming and expensive. This reason – too expensive and time-consuming – is often given to explain the lack of qualitative research with participants living in remote First Nation communities. This paper presents an overview of a research method developed in collaboration with our research partner K-Net and KORI (Keewaytinook Okimakanak) in northwestern Ontario.

Note: this publication was later revised and published as a journal article, publication #28, which is also available in French.

11 (available in English)

Reference: Hancock, B-R., and O'Donnell, S. (2009). New Media and Self-Determination: Publicly Made and Accessible Video and Remote and Rural First Nation Communities. Presented at the Canadian Communication Association Annual Conference (CCA 2009), Carleton University, Ottawa, May.

Abstract: This working paper explores the potential for New Media to provide a means for members of remote and rural First Nations communities to challenge problematic mainstream representations of First Nations identity. Video on public access sites such as YouTube and Google Video, as well as on websites that act as hubs for First Nations internet users in remote and rural areas, allow for the accumulation of a critical mass of videos, providing complex, contemporary, and fluid images that "speak" to one another across distance and time. Such an accumulation may provide the means for a social movement—the public dissemination of self-determined identities by members of remote and rural First Nations communities thus growing in power to become a counter-hegemonic practice that undermines the misrepresentations of First Nations culture and identities in mainstream media.

10 (available in English)

Reference: McKelvey, F., O'Donnell, S. (2009). Multi-site Videoconferencing as a Public Sphere in First Nation Communities: A Case Study. Presented at the International Communication Association Annual Conference (ICA 2009), Chicago, May.

Abstract: The paper examines multi-site videoconferencing as a public sphere. The theory of the public highlights the political effects of multi-site videoconferencing and how the technology contributes to the well-being of the community. To analyze the political effects of videoconferencing, the paper describes a case of community use of multi-site videoconferencing based on video analysis and semi-structured interviews. The case occurred in 2007 and connected a number of First Nation communities across Canada for simultaneous audio-visual exchange. K-Net Services in Ontario hosted the meeting to gauge the feasibility of public meetings through videoconferencing and to document an example of community uses of the technology. K-Net Services works to develop their videoconferencing infrastructure as a public space. Our findings suggest K-Net's activities have developed a media institution best understood as a counter-public sphere for their service region. The case meeting shows a potential new opportunity to further integrate videoconferencing into community development.

Note: This publication was later revised and published as a journal article, publication #21, which is also available in French.

9 (available in English)

Reference: O'Donnell, S., Walmark, B., and Hancock, B-R. (2009). Communicating Visually: Videoconferencing and Remote and Rural First Nations. Presented at the Aboriginal Policy Research Conference, Ottawa, Canada, March.

Abstract: Videoconferencing is usually perceived as something useful for institutional reasons – primarily telehealth and distance education. First Nations are using videoconferencing not only for health and education but also in other ways for community, economic and social development. This paper discusses findings from a SSHRC-funded study of First Nations organizations that are supporting the use of video communications by rural and remote communities. The discussion explores why visual communication is important for First Nations, the prevalence and purposes of videoconferencing in non-institutional settings, and the challenges the communities experience using this technology. The central theme of this paper is that videoconferencing is a vital tool for remote and rural First Nations and in order for it to become widely used, the technology has to be a part of everyday life in communities and not just restricted to telehealth and distance education. Further, if we can find ways to increase the use of videoconferencing in non-institutional settings by everyone in First Nations communities, the technology will be used more often for institutional applications.

Note: This publication was later revised and published as a book chapter, publication #22, which is also available in French.

8 (available in English)

Reference: O'Donnell, S., Beaton, B., & McKelvey, F. (2008).Videoconferencing and Sustainable Development for Remote and Rural First Nations in Canada. Proceedings of the Community Informatics Research Network (CIRN 08) Conference, Prato, Italy, October.

Abstract: Videoconferencing can be used to connect remote and rural First Nation communities to work together on sustainable development priorities. This paper presents two case studies of videoconferencing events. In both cases, a real-time high-bandwidth connection provided rich visual and audio data to be exchanged among communities separated by vast distances. The host communities for these videoconference events are small First Nations with traditional lifestyles connected to the land. Despite their remoteness and traditional cultures, these communities have the capacity to use advanced high-bandwidth technologies in innovative ways to contribute to sustainable development of their communities.

7 (available in English)

Reference: O'Donnell, S., Perley, S., and Simms, D. (2008). Challenges for Video Communications in Remote and Rural Communities. Proceedings of the IEEE International Symposium on Technology and Society (IEEE ISTAS 08). Fredericton, June.

Abstract: For Canada's remote and rural communities, video communications provide a vital lifeline. This study explores the challenges for video communications in remote and rural First Nation (Indigenous) communities. Central to our analysis are social and technical issues as well as the ICT experiences of community-based organizations and community members. We use an analytical framework to identify challenges in four categories: technical infrastructure, the interactions of the users with the technical infrastructure, the production and reception of audio-visual content, and the organizational and social relations. Our findings underline the need for community capacity building to address these challenges and use video communications to its full potential.

Note: This publication was later revised and published as a journal article, publication #14, which is also available in French.

6 (available in English)

Reference: Perley, S. (2008). Representation and Participation of First Nations Women in Online Videos. Presented at the International Communication Association Annual Conference (ICA 2008), Montreal, May.

Abstract: With the rise in websites for video sharing on the Internet and the increase in resources to create and upload videos, there is potential for First Nations women to make use of this alternate public sphere for representing issues they cannot normally address through mainstream media. A critical analysis of the representation and participation of First Nations women in online videos provides some insight into how First Nations women are currently using new information and communication technologies to question and challenge mainstream media assumptions and representations of First Nations women. The paper explores the potential of online videos produced by First Nations women to provide an alternate public sphere to represent themselves and their perspectives and promote social change.

Note: This publication was later revised and published as a journal article, publication #19, which is also available in French.

5 (available in English)

Reference: O'Donnell, S. and Kakepetum-Schultz, T. (2008). Videoconferencing Connects Remote Communities. Sagatay. April-May.

Abstract: This short article describes community uses of videoconferencing by remote communities in Northwestern Ontario. It was published in the in-flight magazine of Wasaya Airways.

4 (available in English)

Reference: VideoCom Research Initiative. (2008). Encouraging Urban Organizations to Videoconference with Remote and Rural First Nations. VideoCom Research Update. March.

Abstract: This one-page report summarizes recent research that underlines the need to encourage urban organizations to use videoconferencing to meet the communication needs of remote and rural First Nation communities.

3 (available in English)

Reference: Simms, D., O'Donnell, S., & Perley, S. (2008). Attitudes Toward and Use of Video Communications by Educators in First Nation Schools in Atlantic Canada. Fredericton: National Research Council. January.

Abstract: This NRC report presents the results of a survey of teachers and other staff in First Nation Schools in the Atlantic Region. The study focus was to understand their attitudes toward and use of video communications. The study identified a need for more support and training for teachers to use videoconferencing and share videos online.

2 (available in English)

Reference: O'Donnell, S., Perley, S., Walmark, B., Burton, K., Beaton, B., & Sark, A. (2007). Community-based Broadband Organizations and Video Communications for Remote and Rural First Nations in Canada. Proceedings of the Community Informatics Research Network (CIRN 2007). Prato, Italy, November.

Abstract: Our research is building understanding about how two community-based First Nations organizations in Canada are using video communications on broadband networks to support economic and social development in remote and rural First Nations. This study situates these two organizations within a broader social movement working toward self-determination for First Nations in Canada, exploring their use of video communications in this context. Video communications using broadband networks includes videoconferences (live and archived) and online videos. The research methodology for this study includes a content analysis of hundreds of archived videoconferences and videos on the servers of the two organizations as well as interviews with key informants using these technologies to develop remote and rural First Nations communities.

Note: this publication was revised and later published as a book chapter, publication #15, which is also available in French.

1 (available in English)

Reference: S. Perley and S. O'Donnell. (2006). Broadband Video Communication Research in First Nation Communities. Presented at the Canadian Communication Association Annual Conference (CCA 2006), York University, Toronto, Ontario, June.

Abstract: This paper provides an overview of policies and strategies for broadband infrastructure and access, and broadband video communication development and use in First Nation communities in Canada. Although using broadband for video communication remains underdeveloped in First Nation communities as a whole, successful initiatives have been underway for many years, particularly in the areas of distance education and telehealth applications. The research conducted to date on broadband video in Aboriginal communities has focused almost exclusively on evaluations of distance education and telehealth applications, which have primarily been positive evaluations. There has been little research on other kinds of applications. The authors discuss approaches to doing research with Aboriginal communities. Clearly there are many opportunities for researchers to investigate and explore the possibilities of broadband video communication for First Nations across Canada. However researchers working on these projects in First Nation communities will face a number of challenges. The authors discuss these challenges and outline some ways forward. Before First Nation communities develop broadband video communication applications, concrete First Nation community-specific planning and development that looks at the needs, priorities, and long-term goals of the community and its members must be fully addressed.