

THE SOCIAL AND TECHNICAL IMPACTS OF HEALTH
ROBOTICS AND REMOTE PRESENCE TECHNOLOGIES
IN NORTHERN AND REMOTE REGIONS

COMPARATIVE ANALYSIS OF HUMAN-MACHINE INTERACTIONS IN NORTHERN
SASKATCHEWAN, TROMSØ, NORWAY AND YAKUTSK, RUSSIA

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1 Research Statement

Drawing from the integrated and interdisciplinary areas of Health, Computer Science, Sociology, Public Policy and Economics, this innovative and exploratory research will aim to better understand how socio-technical systems of robotics in health care service can build educational and health care capacity in northern, and typically, remote regions. This study will include communities in northern Saskatchewan, Norway and Russia. The human and technological systems, described below, attempt to provide health care service in remote areas through robotics and remote presence. In essence, this exploratory research will investigate access to health services and training by examining the social and technical impacts of robotics and remote presence (RP) technologies in northern and remote regions. More specifically, a mixed-methods, qualitative research strategy will be applied using the following methods: 1) preliminary stakeholder interviews and literature reviews for knowledge synthesis; 2) site visits with in-depth interviews and field observation; and 3) comparative analysis of local and international regions.

1.1 Problem statement:

Background and Context

There is a shortage of health care professionals in rural and remote locations that has been identified as a global challenge to health care and is particularly exacerbated in northern, remote and Indigenous communities across Canada (Browne, 2010; CFHI, 2016; Burtseva, Uvarova, Tomsy, & Odland, 2014; College of Nursing & ICNGD, 2014; College of Nursing 2015a & 2015b; Gibson, Coulson, Miles, Kakekakekung, Daniels & O'Donnell, 2011). Additionally, there is an abundance of research demonstrating the need for improved support systems to facilitate access to appropriate infrastructure, telecommunications, educational opportunities and health services for remote and northern Indigenous areas (Royal Commission on Aboriginal Peoples (RCAP), 1996; Macaulay, Harris, et al, 2003; Keresztes and Shaw, 2002). Collaborative efforts to address health challenges in these regions between key decision makers, leaders, policy makers and practitioners to build solutions are emerging (CFHI, 2016; Institute for Circumpolar Health Research, 2016; Kowpak & Gillis, 2015).

One of the responses has been to implement technologies that will form an important foundation for improving northern and remote regions' capacity to access health services and training in the north (Berry, Butler & Wright, 2014; McCabe, J., Butler, L., Exner-Pirot, H., et al., 2015; Mendez, Jong, Keays-White, & Turner, 2013). Unique and innovative technological developments are currently being used and applied in northern and remote regions. One prominent example includes health robotics and RP technologies that are being implemented to support teaching and learning in distributed training programs and provide access to health services. The College of Nursing at the University of Saskatchewan utilizes robotics and RP technologies to teach students in Northern Saskatchewan (Île-à-la-Crosse, La Ronge and Pelican Narrows) and remote locations internationally such as Tromsø, Norway and Yakutsk, Russia using the RP7i robots (Berry, Butler & Wright, 2014). The RP7i robots are independent mobile robots with "an articulated flat-screen monitor for visual display, dual camera configuration and full on-board audio, for a seamless and immersive experience" (College of Nursing, 2016). Students from northern communities connect to faculty at the University of Saskatchewan which allows for engagement between teachers and learners at remote sites. Such technologies are removing geographical barriers with the aim to better support learning in the northern communities where people live.

Understanding what remote health technologies mean to users (i.e. students, teachers, patients and practitioners) and the broader community within northern, remote and Indigenous contexts is critically important to the overall assessment of health service provision. Investigating users' lived experiences and interpretations of technology is key to understanding their efficacy, as well as socio-technical relations or the embodied interactions of humans and machines. For example, the RP7i robot depicted in the photo to the right shows a lab coat placed over the robot's body in a curious and interesting way. An observer might wonder: what is the significance of the lab coat placed over the robot's body and what impact does this have on the student's perception of the robot? What role do the RP7i robots and RP technologies play in the students' training and in what ways does this shape the nature of access to health services and training?



RP7i Robot with Northern Nursing Students

As new health robotics and technologies are implemented in northern and remote areas, there is an increased need to, on the one hand, assess the complex socio-technical, cultural, and political implications of technologies. As such, this assessment explores how technologies are experienced and used. On the other hand, it is important to address how these technologies can simultaneously impact the people and communities that use them. Identified within the Science and Technology Studies (STS) literature, technologies "will have both beneficial and disadvantageous consequences for their increasing pervasiveness within societies" (Loader, 1998, p. 6; Bassendowski, Mackey, & Petrucka, 2014). It is important to explore the ways in which technologies shape what it "means for people's sense of self, for the texture of human communities, for qualities of everyday living, and for the broader distribution of power in society" (Winner, 1993, p. 368). It is essential to consider what new technologies mean to the people who use them and the ways in which they are experienced and used (Mackay and Gillespie, 1992; Suchman, 1998, 2005, 2007).

Current Gaps in Canada's Northern Strategy:

To address the science and technology gap that exists in the north, Canada has developed a *Northern Strategy* that is focused on positioning Canada's Arctic north as a global leader in Arctic science. Two key priorities under the International Polar Year (IPY) were focused on "climate change impacts and adaptation; and the health and wellbeing of Northerners and Northern communities" (Government of Canada, 2009, p. 24), however, two gaps can be identified within this framework:

- 1) Significant attention is placed on the Arctic north, while less is centered on the sub-Arctic or provincial northern regions facing similar challenges (Coates, Holroyd & Leader, 2014) and their comparable regions in the circumpolar world; and
- 2) The discussions surrounding science and technology are geared toward providing the knowledge to develop policy and decision-making, however, little is described about how the lived experiences of northerners and northern communities are taken into account.

Current Gaps in the Science and Technology Studies (STS) Academic Literature:

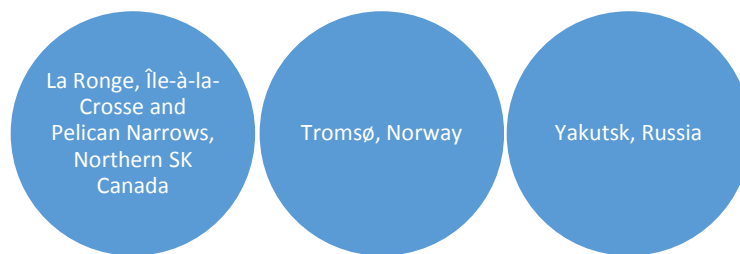
The STS literature explores the foundations of social and technical constructs, however, there are a limited number of studies that provide empirical cases studies to better understand the implications of new technologies. Moreover, the ways in which human-machine interactions meaningfully shape experiences, and impact individuals and their communities within northern and Indigenous contexts, are almost completely absent. In order to better inform innovation and technology policies, the study of socio-technical systems examining the lived experiences of individuals who are directly impacted and implications on communities and the broader social context needs to play a role.

1.2 Proposed Research:

My proposed research will investigate how socio-technical systems can build educational and health care capacity in the north through access to health services and educational training. As such, this study will examine the social and technical impacts of robotics and remote presence (RP) technologies in northern and remote regions. The purpose is to learn about the ways in which these technologies impact the lives of northerners through examining comparisons of health related socio-technical systems in similar northern regions. The specific focus will be on the Canadian provincial norths and sub-Arctic circumpolar regions. The technologies under observation include the health robotics and RP technical system implemented through the College of Nursing at the University of Saskatchewan in collaboration with northern communities. These specific technologies are primarily used for patient-physician/practitioner and student-teacher/health professional interactions.

This study will incorporate an international comparative assessment to determine how differing circumpolar regions utilize science and technological innovations. In doing so, this study will assess the ways the technologies are perceived by individuals and communities, determining the level of receptiveness towards these technologies. Moreover, the technological impact on everyday life, including the ability to access health services and training, will be assessed. Finally, this research will consider the ways that different regions can learn from each other.

The proposed case study regions include:



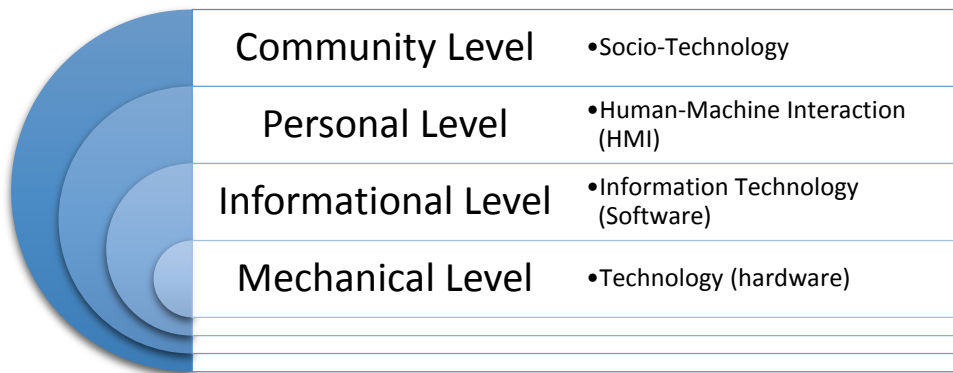
The Canadian case study will center on the three Northern Saskatchewan communities of Île-à-la-Crosse, La Ronge and Pelican Narrows. This study will compare insights with similar remote health technologies (i.e. RP7i) that are used for distributed and remote training programs and accessing health services. The Canadian case study results will be compared with results from Tromsø, Norway and Yakutsk, Russia.

My professional role as a Research Associate for the International Centre for Northern Governance and Development (ICNGD) has provided a direct link with researchers from the College of Nursing who are developing these technologies. Through this role, I have made significant international connections with Scandinavian and Russian partners. Such partnerships will be beneficial to identifying and connecting

with potential stakeholders as a starting point for case study opportunities abroad. One important aspect of my role at ICNGD is to assist coordinating with our International partners on the UArctic Thematic Network on the Commercialization of Science and Technology for the North. This network allows for opportunities to interact with many researchers from these regions. There is also a newly formed Thematic Network on Northern Nursing Education that will be a direct link to this work.

This research will place emphasis on perspectives from Indigenous groups in each of the case study regions given the high population of Indigenous peoples in these northern and remote communities. The focus on Indigenous perspectives is important to this topic as there are cultural factors that may shape personal and community world views surrounding technologies. Over the last seven years I have worked closely with Northern and Indigenous communities on community-based research projects, including a long-term Indigenous health research project. Through these experiences I learned how Indigenous ways of knowing and concepts of health embed ideas about connections to land, culture and tradition. My proposed research will be an opportunity to further explore Indigenous ways of knowing and perspectives as it relates to technology and innovation. Of particular interest is looking at how northern and Indigenous peoples and communities may benefit from health robotics and RP technologies and identify potential barriers or challenges.

In order to better understand the multiple layers of individual/community perspectives and the broader social process of innovation, it will be important to consider multiple levels of analysis. Such analysis will include micro (interpersonal interactions) and macro (large-scale social processes) levels. Socio-technical systems encompass various levels, from the mechanical, informational, and personal levels to the community level, illustrated in the diagram below.



At the micro level it will be important to understand the ways in which users interact with the health robots and RP technologies. The specific ways in which these interactions shape users perspectives and make meaning out of their experiences will be critical information. An example of how to measure interactions at this level includes evaluating how users express or talk about the technologies. Indicators will be developed to define and assess impacts on personal or community viewpoints in terms of their receptiveness of technologies, quality of life and well-being, and perceived access to health services and training. At the macro level it will be important to expand analysis to the larger socio-economic and political processes regarding the receptiveness of these technologies. The larger social processes at play can be determined by examining the benefits and barriers defined in policy and innovation strategies.

During my Master's thesis work, "Exploring socio-technical relations: perceptions of Saskatoon Transit's go-pass smartcard and electronic fare system", I learned that the language that users apply to discuss technologies and their experiences of using those technologies plays an important role in shaping their perspectives and sense of self in relation to those technologies. To enhance learning in this area for my doctoral research, I plan to incorporate this type of exploration into human-machine interactions at the micro level but also go one step further by incorporating a broader macro approach that involved identifying impacts on the broader scale in terms of technology policies.

One goal of this approach will be to bridge the gap between micro and macro levels of analysis. Macro analysis allows observation of large-scale social patterns and trends, but has a tendency to ignore smaller scale interactions that also play a role. That is, it tends to provide an interpretation of trends existing outside of the individuals who enact them in everyday life on the ground. Micro analysis alternatively allows for every day, on-the-ground, analysis but tends to ignore the larger potential forces that influence individual and interactions. A blend of micro and macro approaches will help inform analysis to better represent the benefits, barriers and best practices surrounding user experiences and socio-technical design. At the same time, this blended analysis will enable exploring the ways in which societies and technologies shape each other and inform technology policies and practices.

Preliminary Research Questions:

- What are the social and technical impacts of health robotics and remote presence (RP) technologies in northern and remote regions (Northern Saskatchewan, Tromsø, and Yakutsk) and on the lives of northerners living in these communities?
- What are the similarities and differences between these northern and remote regions in terms of the following:
 - Receptiveness of technologies
 - Perception of technologies in use
 - Application of technologies in use
 - Social, cultural, economic and political impacts on technology
 - Technological impacts on social, cultural and political context
 - Lessons learned/best practices
- In what ways can socio-technical systems build capacity in the north through access to health services and educational training across these regions? What are the benefits and barriers to achieving this?

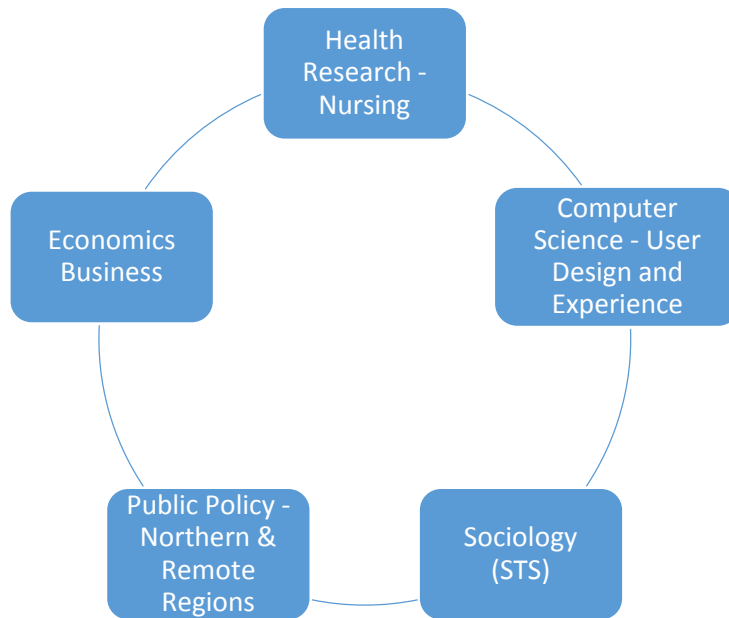
Strategy for Research Inquiry:

Research Inquiry			
Knowledge synthesis:			
<ul style="list-style-type: none"> health technologies, northern innovation, and Indigenous ways of knowing 			
Comparative:		Case Study Regions:	
1. Receptiveness of technologies <ul style="list-style-type: none"> Individual and community attitudes towards technologies – i.e. likeliness of the technologies being used 	Region 1: Northern Saskatchewan, Canada (Île-à-la-Crosse, La Ronge, Pelican Narrows)	Region 2: Tromsø, Norway	Region 3: Yakutsk, Russia
2. Perception of technologies in use <ul style="list-style-type: none"> Human-machine observations and perceptual questions surrounding user experience - i.e. how technologies made the users feel (impacts on self) 			
3. Application of technologies in use <ul style="list-style-type: none"> Human-machine observations and application questions surrounding user experience - i.e. how well the technologies work (impacts of use) 			
4: Social, cultural and political impacts on technology <ul style="list-style-type: none"> Professional arrangements, adaptability of users, policies in place, Indigenous knowledge system 			
5: Technological impacts on social, cultural and political context <ul style="list-style-type: none"> Impact on access to health services and training, technology use, connectedness to other communities, Indigenous knowledge systems, adapted ways of knowing 			
6. Lessons Learned <ul style="list-style-type: none"> Best practices across the regions and recommendations 			

1.3 Rationale – Why An Interdisciplinary Approach Is Required:

The study of remote presence (RP) technologies and robotics being used in health care settings is an emerging field of research that is innovative, exploratory in nature, and cuts across multiple disciplines. My proposed program of study is a combination of mixed methodological and theoretical approaches to studying health robotics and RP technologies. In addition, both micro and macro level analysis will be incorporated to better understand the social and technical impacts of technologies, that in turn, lends itself well to work within an integrated, interdisciplinary framework. The proposed disciplines, which are discussed below, will provide critical knowledge to successfully study this emerging field of research.

Proposed Interdisciplinary Fields of Study:



My research focuses on the intricacies of human-machine interactions and exploring the social and political impacts of technologies on individuals and communities that requires multiple levels of analysis. The blended areas of Health research, Computer Science, Sociology (STS), Public Policy and Economics/Business as indicated in the diagram above will best prepare and inform my studies at the PhD level. Practicing and learning from experts from within these fields will enhance a better understanding of the theme that cuts across all disciplines: innovation, and the technology/human interface.

These integrated disciplinary areas will enable discovery while also providing a foundation to study complex issues at both the local and international scales. This interdisciplinary project will combine expert insights across disciplines to envision solutions to new technology in an innovative way. Indeed, there is a need to draw expertise from multiple fields and foster cross-disciplinary collaborations in order to inform solutions to complex problems. We see this need in calls for proposals through SSHRC, NSERC and CIHR. My research experience in the areas of science and technology studies, northern entrepreneurship/innovation and Indigenous studies has exposed me to the expertise that will prove beneficial to pursuing an Interdisciplinary Studies degree program.

STS studies is one interdisciplinary field that draws together the social sciences and the natural sciences. The strength of the Interdisciplinary Studies PhD program is the opportunity for me to build on my existing knowledge in STS in an environment that promotes and facilitates collaboration among disciplines that may otherwise not occur. My goal in selecting this program is to capitalize on the expertise within communities in the circumpolar and sub-Arctic regions.

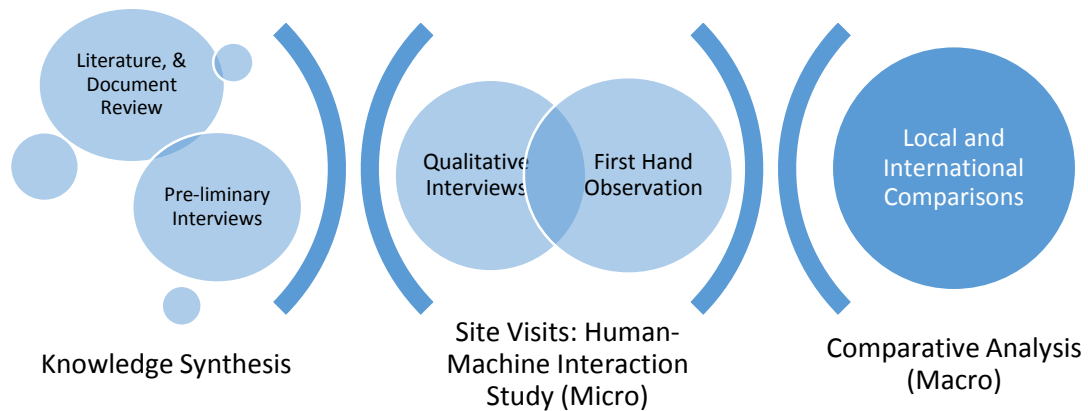
1.4 Proposed Research Methodology:

This research will employ a mixed-methods, qualitative research design using a socio-technical systems approach to better understand the human/technology interface. As such, multiple methods will be

utilized to assess the ability for health robotics and remote presence technologies to build educational and health care capacity for northern communities. Three case studies will be selected in northern and remote locations, locally in Canada and internationally in Norway and Russia.

The mixed methods data collection strategy includes these components: 1) preliminary stakeholder interviews and literature reviews for knowledge synthesis; 2) site visits with in-depth interviews and field observation; and 3) comparative analysis of local and international regions.

Model for Data Collection and Analysis:



First, a Knowledge synthesis of academic literature and documentation will frame the initial stage of the project. Second, semi-structured interviews will be conducted at two stages: 1) preliminary interviews with key stakeholders such as program developers and health care professionals; and 2) in-depth interviews during site visits with individual users of the technology. Third, first hand observations (participant observation) during site visits at case study locations will provide first-hand knowledge. During the site visits it may be beneficial to include multi-media methods using tools such as photographs or other digital technologies to capture in-depth insights into participants' perspectives. Finally, comparative field observations will be captured at all stages of the research including site visits and preliminary analysis of the data.

Methods to test user design and experience will be incorporated into the field observation and will be influenced by Computer Science methods. The exact methods will be developed during the research design of the project. When capturing and analyzing data collected about lived experiences, an interpretive epistemological methodological perspective would be best applied. Further, the nature of the proposed research will involve individual perspectives and therefore requiring ethics approval through the University of Saskatchewan's Research Ethics Board. Research ethics will be obtained prior to research data collection. The expected risk of the research will be relatively low but it will be important to protect the confidentiality and ensure anonymity of participants.

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2 Letter from Supervisor

Jennifer Poudrier, Associate Professor
Department of Sociology, University of Saskatchewan
Room 1016 Arts, 9 Campus Drive
(306) 966-1793
Jennifer.poudrier@usask.ca

April 28, 2016

Department of Interdisciplinary Studies
C180 Administration Building
105 Administration Place
University of Saskatchewan
Saskatoon, SK S7N 5A2

Dear Members of the Interdisciplinary Studies Graduate Admissions Committee,

It is my great pleasure to support Ms. Joelena Leader's application to the Interdisciplinary Graduate Program. I have known Joelena for approximately 7 years, first as an undergraduate student in my Sociology of Science and Knowledge course and second, as a MA graduate student in Sociology. She has also worked with me as an invaluable research assistant on a number of diverse research projects for several years. These projects have ranged from community based participatory research with First Nations women and youth in the area of health and social science research at the Canadian Light Source. As such, I fully support her application and will be very pleased to supervisor her Doctoral Program proposed here.

As you will see in these documents, Joelena is already a very successful student, academic and researcher. Her grades in the graduate program were 89% overall and she won the prestigious award for the Most Outstanding Graduate Student from the Canadian Sociological Association. Aside from her excellent academic work in the Sociology program, she has done exceptional and extremely diverse work on a range of research projects. Some of her skill sets include, but are not limited to, writing academic publishable papers, organizing large research projects, website development, working as a specialist with qualitative data and its related software (NVIVO), and working with other computing / digital software.

As it relates to Ms. Leader's academic qualities, she is extremely hard-working, dedicated and thorough in her approach to all aspects of research. She is innovative and shows exceptional judgment and industry. In the past, had there been a task that Joelena did not have previous experience with, she would continuously learn, very quickly, how to complete it. As such, she is very capable of working independently, but also as part of larger research teams. As previously indicated, her contribution to various research projects was absolutely invaluable. I would also suggest that her current work with ICNGD is invaluable to their team.

Joelena is also a very curious and enthusiastic academic. She has always shown interest in new and innovative areas of study that, as you'll see are inter-disciplinary. She has always had an interest in Science and Technology Studies, with a focus on human and technological interfaces and now sees an

opportunity to develop a unique research program that matches her curiosity in the domains of Health, Computer Science, Sociology and Public Policy.

Explanation of the research/program of study as interdisciplinary and why it could not be conducted within a program in an individual department:

The proposed research, which explores various socio-political and technical dimensions of health robotics and the remote presence technologies, would be best practiced through a blended teaching from disciplines including Health, Computer Science, Sociology (Science and Technology Studies), Public Policy and Economics. An exciting, innovative and exploratory area of study such as this requires an integrated interdisciplinary approach that will enable learning and discovery, while providing a foundation to study complex issues. Joelena's long term focus on and experience with research surrounding northern and Indigenous communities and on science, and technology studies, is a valuable asset and she has demonstrated ability to take on and manage projects independently, both at the graduate level and professionally, that would prove beneficial during her studies in the Interdisciplinary Studies program.

Any funding, support arrangements and facilities resources (office space, laboratory and equipment, computer facilities) that will be available to the student:

Joelena will have adequate space in her current position at Kirk Hall and would not require additional space or equipment during her studies. This was mutually agreed upon. Additionally, Joelena plans to seek funding from the Social Sciences and Humanities Research Council (SSHRC) and other sources which will help fund her studies.

Supervisor has read the research proposal, provided input to its development, they support the proposal, and accept responsibility for managing the program:

I have worked directly with Joelena to develop her proposal and ensure that it is a doable research proposal that would align well with her research interests and abilities. I have provided feedback and recommended changes throughout. I fully support and accept responsibility for managing the program. Additionally, I have agreed to develop a Special Topics Graduate course (898.3) in Sociology for Joelena's program that will blend Science and Technology Studies (human/machine interaction) with health and medicine studies. This course will draw on a range of new and innovative literature that will support Joelena's program of study.

Please do let me know if there are any clarifications or questions.

All my kind regards and in all support of this Doctoral application,

Jennifer Poudrier

3. Course Work

JSGS 859 - Innovation Policy: This graduate course is a special topics course in the theory and practice of innovation policy that incorporates primary readings, discourse and writing. This course will be valuable for the practical understanding of how innovation policies impact new technological innovations.

NORD 847 Circumpolar Innovation: NORD 847 examines the ways in which scientific and technological innovation is shaping the circumpolar world at the global scale. It explores how new technologies and new commercial processes can have a beneficial impact on the North.

INTD 898 Special topics/reading course: A special topics course will be designed by Dr. Jennifer Poudrier, Department of Sociology in the areas of the Sociology of Science and Technology Studies (STS) with a focus on health technologies. This course will be designed to better prepare the blending of the social and health sciences in the area of STS.

CMPT 811 Advanced Human Computer Interaction: CMPT 811 focuses on theory in the design, implementation, and evaluation of human-computer interfaces, and understanding of the research issues underlying interaction. This course will provide the fundamental theoretical and methodological background and skills for evaluating user design and Human-Computer Interaction (HCI) studies as it is conceptualized and practiced within Computer Science. This course is taught by Regan Mandryk in the Department of Computer Science and special permission will be given to take this course.

4 Required Program Elements

The following required courses will be taken.

4.1 INTD 990

4.2 INTD 996

The following two courses have been previously taken:

4.3 GSR 960

4.4 GSR 961

4.5 Ethics Approval

The nature of the proposed research will involve individual perspectives requiring ethics approval through the University of Saskatchewan's Research Ethics Board. Ethics will be obtained prior to research data collection. The expected risk of the research will be relatively low but it will be important to protect the confidentiality and ensure anonymity of participants.

4.6 Qualifying and Comprehensive Exam

The Student Advisory Committee will decide on the nature and timing of the comprehensive exams at one of the early meetings.

5 Proposed Student Advisory Committee (SAC):

My Student Advisory Committee will comprise of the following faculty including their membership, the SAC structure and their expertise and contributions:

- Supervisor:** Dr. Jennifer Poudrier, Associate Professor, Undergraduate Chair, Department of Sociology

Expertise and Contribution: Dr. Poudrier's expertise in the areas of the Sociology of Health, Science, Technology and Society (STS) studies and Indigenous knowledge systems compliment and provide critical knowledge to my research program. Dr. Poudrier is one of very few scholars working in the areas of Sociology of health focused on Indigenous health and STS at the University of Saskatchewan and will be an excellent supervisor and mentor.
- Committee Member:** Dr. Ken Coates, Professor and Canada Research Chair in Regional Innovation, Johnson-Shoyama Graduate School of Public Policy, University of Saskatchewan; Director, International Centre for Northern Governance and Development

Expertise and Contribution: Dr. Coates' expertise and breadth of knowledge in Northern Research, Innovation and Public Policy will be of critical value to the success of my proposed study. The complementary and overlapping fields of research led by Dr. Coates with specific focus on provincial and circumpolar norths will provide excellent guidance throughout my proposed program of study.
- Committee Member:** Dr. Lorna Butler, Professor – Seconded, Senior Strategist, Distributed and Technology Enhanced Learning and Discovery - VP Research Office.

Expertise and Contribution: Dr. Butler's specific research area, expertise and direct involvement in the development of the remote presence technology and implementation in northern and remote regions will provide incredible guidance and support for this project.
- Committee Member:** Dr. Regan Mandryk, Associate Professor, Department of Computer Science

Expertise and Contribution: Dr. Mandryk's expertise in the area of Human-Computer Interaction (HCI) studies will provide an immense knowledge base for the evaluation of user interactions and design for my proposed research. Dr. Mandryk is a pioneer in this specific area of interaction studies that has bridged the gap between computer science and social science perspectives.
- Committee Member Chair:** Lee Swanson, Associate Professor, Management and Marketing, Edwards School of Business.

Expertise and Contribution: Dr. Swanson has expertise surrounding broader economic and social processes from a business perspective. His specific research areas that focus on social and Indigenous entrepreneurship as well as social and economic capacity building in rural and remote communities, will be invaluable support to my research. Aligned with my proposed study regions, Lee has expertise working with northern, remote and primarily Indigenous communities in Northern Saskatchewan and Scandinavian arctic regions.

6 Funding & Resources

Given my position at the International Centre for Northern Governance and Development I have office space and equipment readily available to me. The use of these resources has been discussed and approved with my employer.

I plan on applying for the following Social Sciences and Humanities Research Council (SSHRC) funding and complementary travel funding to support my studies:

1. Joseph-Armand Bombardier Canada Graduate Scholarships Program Doctoral Scholarships, and SSHRC Doctoral Fellowships
2. Canada Graduate Scholarships—Michael Smith Foreign Study Supplements

A letter from the Sociology Department Head indicating adequate resources such as office space and equipment are met and acknowledging my program of study is to come.

7 Appendices

7.1 A. Transcripts

(Submitted as a separate file)

7.2 B. Proof of Language Proficiency
(Not applicable)

7.3 C. References

(Submitted as separate, confidential files)

7.4 D. Program of Studies Form: GSR 207
(Submitted as a separate file)

7.5 E. Special Topics Courses (INTD 898)

April 28, 2016

Department of Interdisciplinary Studies
C180 Administration Building
105 Administration Place
University of Saskatchewan
Saskatoon, SK S7N 5A2

Dear Members of the Interdisciplinary Studies Graduate Admissions Committee,

I have agreed to develop a Special Topics Graduate course (898.3) in Sociology for Joelena's program that will blend Science and Technology Studies (human/machine interaction) with health and medicine studies. This course will draw on a range of new and innovative literature that will support Joelena's program of study. Approval for the course will be obtained at the appropriate time.

Jennifer Poudrier
Department of Sociology, University of Saskatchewan
Room 1016 Arts, 9 Campus Drive
(306) 966-1793
Jennifer.poudrier@usask.ca

8 Correspondence

My research focuses on the intricacies of human-machine interactions and exploring the social and political impacts of technologies on individuals and communities that requires multiple levels of analysis. The blended areas of Health research, Computer Science, Sociology (STS), Public Policy and Economics/Business will best prepare and inform my studies at the PhD level. These integrated disciplinary areas will enable discovery while also providing a foundation to study complex issues at both the local and international scales. This interdisciplinary project will combine expert insights across disciplines to envision solutions to new technology in an innovative way.

The arrangements outlined in this proposal are appropriate for my program of study and have been agreed upon by all parties. Committee members have submitted detailed notes indicating that they have read the proposal, agree to serving on my committee, and how their expertise will benefit my research program (see separate attachments).

CURRICULUM VITAE

JOELENA LEADER

International Centre For Northern Governance and Development (ICNGD)
University of Saskatchewan
230 Kirk Hall 117 Science Place
Saskatoon, SK S7N 5C8
Office Phone: (306) 966-1609 | Cell Phone: (306) 281-7073
Email: Joelena.leader@usask.ca

Professional Experience

International Centre for Northern Governance and Development, University of Saskatchewan

2013-present

Research Associate

- Manage and assist with ICNGD's research projects. This includes qualitative data collection, analysis and research design, community engagement, ethics and funding proposals, research communications and creative design (Adobe In-Design, Photoshop and Premiere), and research publications and conference presentations.
- Train and mentor ICNGD's research assistants and graduate students. This includes instruction in NVivo 11 qualitative research software and mentoring students enrolled in ICNGD's graduate program.
- Co-manage communications for ICNGD including the development and maintenance of the Centre's website (www.usask.ca/icngd), creation of posters and promotional items, production of on-going news updates and advertisements for radio and print.

Office of the Vice-President Research, University of Saskatchewan

2012-2015

Research Technician/Data Analyst

- Research on "Collision and Convergence: Assessing and Maximizing the Mutual Benefits between 'Big Science' and the Humanities" funded by the Office of the Vice-President Research at the University of Saskatchewan. Co-Principal Investigator: Dr. Peggy Schmeiser.
- Developed an ethics proposal, organized and conducted thematic analysis of interview data using NVivo 10 Software and created analysis reports, drafted a project report and developed a presentation for an upcoming symposium (TBA) in collaboration with the Johnson-Shoyama Graduate School of Public Policy.

2013-2014

Social Sciences Research Laboratories, University of Saskatchewan

Instructor

- Developed the course materials and instructed NVivo 10 training sessions to faculty and research groups across multiple departments on campus.

2009-2014

Department of Sociology, University of Saskatchewan

Research Technician/Data Analyst

- Managed and assisted with data collection and analysis for two major SSHRC funded projects:

1) *“Iskeewewak Miwayawak - Women Feeling Healthy: The Cultural and Visual Context of Healthy Body Weight and Body Image among First Nations’ Women in the Battlefords Tribal Council Region”* – Principal Investigator: Dr. Jennifer Poudrier

- Managed and assisted with the collection, analysis and organizing of research data, stakeholder management, and presentation of research findings and knowledge translation materials.
- Conducted thematic analysis using NVivo 8/9 and developed analysis summaries and reports, final community report and academic presentations.
- Implemented a research-based website and online gallery, created slideshows, a photostory video, photo-journals and presented findings at community meetings.

2) *“Resilience to Offending: Listening to Youth On-Reserve”* – Principal Investigator: Dr. Carolyn Brooks

- Assisted with the survey design, data collection, and conducted qualitative and quantitative analysis using NVivo 10 and SPSS 20.
- Developed summary statistical reports, a final community report, designed and implemented a research-based website with online galleries, and assisted with designing posters, booklet and a video.
- Provided technical expertise and research assistance including developing a training session for qualitative research methods, instructed researchers on NVivo 8 and 9 and research-based website development.

2010-2013

Department of Sociology, University of Saskatchewan

Research Assistant

- Research related to an IPHRC and Network for Aboriginal Mental Health Research funded project on “Circles of Learning, Circles of Change: Engaging Community in Knowledge Translation Activities Regarding Child Sexual Abuse and Residential Schools.”
- Assisted Dr. Karen Wood in developing a summary report, care grant proposal, participating in sharing circles and writing community meeting notes. Co-authored an article for the RESOLVE newsletter and created knowledge translation materials.

2013

Department of Sociology, University of Saskatchewan

Teaching Assistant

- Assisted Dr. Colleen Dell with teaching Studies in Addictions (SOC 347 and PUBH 847).
- Organized lectures, co-led classes, marked papers and exams, provided weekly evaluations, tutored students and invigilated exams.

2013

Department of Sociology, University of Saskatchewan

Tutor

- Worked closely with a DSS student taking introductory Sociology courses (SOC 111 and SOC 112).
- Assisted with reading comprehension, technical writing skills, and evaluated student progress.

2011

Department of Sociology, University of Saskatchewan and the City of Regina

Research Assistant

- Research related to a short term project called "Design Regina," with Carolyn Brooks at the University of Saskatchewan in partnership with the City of Regina.
- Conducted data analysis using Excel, SPSS and NVivo 8 in a team environment and assisted in completing a final report for the City of Regina's "Design Regina" project.

2010-2011

Department of Sociology, University of Saskatchewan

Teaching Assistant

- Assisted Dr. Despina Iliopoulou with teaching Foundations in Sociology (SOC 111).
- Marked papers and exams, tutored students, invigilated exams and guest lectured.

2010-2011

Department of Sociology, University of Saskatchewan

Research Assistant

- Provided research support to Dr. Carolyn Brooks for a project on "Understanding Women's use of Violence in Intimate Partner Relationships."
- Transcribed audio interview data and compiled academic searches and literature reviews for a research project on intimate partner violence.

2010

Department of Justice Studies, Mount Royal University and Department of Sociology, University of Saskatchewan

Research Assistant

- Assisted Co-Investigators, Dr. Carolyn Brooks and Dr. Harpreet Aulakh, with research on the project entitled: “‘Youth’ ‘Crime’ and ‘Resilience’: Exploring Community Stakeholders Perspectives.”
- Transcribed audio interviews and conducted qualitative data analysis.

Academic Credentials

Master of Arts (Thesis) , Arts and Science, Department of Sociology University of Saskatchewan, Saskatoon, SK.	2013
Bachelor of Arts (High Honours) , Arts and Science, Sociology University of Saskatchewan, Saskatoon, SK.	2010

Major Research Projects

<p><i>“Northern Capacity Building through Aboriginal Entrepreneurship: A Canadian and Scandinavian Comparative Study”</i></p> <p>Project Co-Manager</p> <ul style="list-style-type: none"> • Principal Investigator: Dr. Lee A Swanson, Edwards School of Business, University of Saskatchewan • 5-Year SSHRC Insight grant. • Collaboration between Edwards School of Business and the International Centre for Northern Governance and Development using Community-Based Participatory Research (CBPR) methods to improve understanding of the past, current and evolving states of the entrepreneurial ecosystem in northern geographical areas, as it relates to social and economic capacity building, this is a comparative study with Northern Scandinavia. 	2014-present
<p><i>“UArctic Thematic Network on the Commercialization of Science and Technology for the North”</i></p> <p>Network Co-Coordinator and Website Manager</p> <ul style="list-style-type: none"> • A network that supports research and teaching on commercially viable scientific and technological innovations that will support Northern families, communities and societies. 	2014-present
<p><i>“Canadian Digital Opportunities: Digital Intelligence in Northern Rural Canada”</i></p> <p>Project Co-Manager</p> <ul style="list-style-type: none"> • This project comprises a two-fold assessment of the relative competitiveness and capacity of Canada’s rural community to prepare for and engage in the digital economy. 	2014-present
<p><i>“Rural Policy Learning Commons (RPLC)”</i></p> <p>Digital Hub Coordinator and Technical Support</p>	2014-present

- RPLC is a network focused on building rural policy through international comparative analysis. It is a collaboration among researchers, policy-makers, practitioners, and citizens within the Canadian Rural Revitalization Foundation (CRRF), the Rural Development Institute (RDI), and the International Comparative Rural Policy Studies program (ICRPS).

2009-2014

“Iskewewak Miwayawak - Women Feeling Healthy: The Cultural and Visual Context of Healthy Body Weight and Body Image among First Nations’ Women in the Battlefords Tribal Council Region”

Research Technician/Data Analyst

- Principal Investigator: Dr. Jennifer Poudrier, Department of Sociology, University of Saskatchewan
- 3-Year CIHR Grant and IPHRC Development Grant.
- The aim of this three year Community-Based Participatory Research (CBPR) project was to identify, analyze and disseminate local knowledge about the cultural contexts of healthy body weight and healthy body image from the perspective of rural Aboriginal women.

2012-2013

“Resilience to Offending: Listening to Youth On-Reserve”

Research Technician/Data Analyst

- Principal Investigator: Dr. Carolyn Brooks, Department of Sociology, University of Saskatchewan
- 3-year SSHRC Grant Partnership Development Grant and Aboriginal Development Grant
- In partnership with BATC, this Community-Based Participatory Research (CBPR) project aimed to understand youth resilience to crime on BATC First Nations reserves. This project used mixed methods combining statistical analysis of survey data, in-depth qualitative interviews and arts-based methods.

2012-2013

“Circles of Learning, Circles of Change: Engaging Community in Knowledge Translation Activities Regarding Child Sexual Abuse and Residential Schools”

Graduate Student Research Assistant

- Principal Investigator: Dr. Karen Wood
- IPHRC and Network for Aboriginal Mental Health Research
- The purpose of this research was to engage community members, who are directly impacted by both Child Sexual Abuse (CSA) and residential schools, in Elder facilitated sharing circles that incorporate information sharing and personal sharing. Participants engaged in knowledge translation activities regarding issues, which can be both personal and painful, in a safe and culturally sensitive environment. The purpose of these circles was to develop sensitive and culturally meaningful educational materials that will raise awareness of CSA and the legacy of the residential school system.

2010-2013

“Exploring Socio-Technical Relations: Perceptions of Saskatoon Transit’s Go-Pass Smartcard and Electronic Fare System”

Student Research

- Master of Arts thesis-based research project (ETD ©December, 2012), Department of Sociology, University of Saskatchewan.
- Developed research methods, ethics proposal, conducted interviews, collected and analysed data and wrote a comprehensive thesis.
- The goal of this research was to contribute to the sociological understanding of mundane technologies-in-practice and socio-technical relations more broadly. This thesis focused on bus riders’ (users) and the community’s perceptions of the Go-Pass smartcard and electronic fare system used by the public transit service in Saskatoon.

2010

“Youth’ ‘Crime’ and ‘Resilience’: Exploring Community Stakeholders Perspectives”

Graduate Student Research Assistant

- Co-Investigators: Dr. Carolyn Brooks, Department of Sociology, University of Saskatchewan and Dr. Harpreet Aulakh, Department of Justice Studies, Mount Royal University
- 1-year SSHRC Development Grant
- Initiated at the request of the community, this project addressed First Nations youth resilience and non-resilience in partnership with three First Nations communities in Saskatchewan. Drawing upon a community-led and Indigenous research framework using focus groups, sharing circles and interviews, our qualitative research endeavor was to better understand youth resiliency in the social, historical and cultural context of their local First Nations communities. The community-specific understanding emerging from this approach was aimed to provide preliminary information that will help inform the four First Nations’ efforts to revise their programming to better address justice and child welfare strategies.

Major Book Projects

“North Below the North”

Researcher

- Author: Dr. Ken Coates
- This project examines the evolution of the Circumpolar sub-Arctic, focusing on the last quarter century. This comparative assessment looks at economic, social and political transitions in the Canadian provincial North, Alaska., Scandinavia and Russia.

2015-
Present

“Idle No More”

Researcher

2013-2014

- Author: Dr. Ken Coates
- This book project follows the Idle No More movement that began in November 2012. In this book Coates argues that Idle No More is built off a deep and profound Indigenous determination to take control of their future, to reassert identify, and to celebrate cultural survival.

Special Projects

Communications Workshop with the Kaska First Nation

2015

Co-Facilitator and Website Designer/Trainer

- A three day intensive communications workshop held in collaboration with the Daylu Dena Kaska First Nation. This workshop involved coordinating with stakeholders in the community to develop a workshop approach to better understand communication needs of the community. This resulted in design, development, and implementation of a community website and training members of the community to build and maintain the website. A communications plan and a final report were also developed as key outputs.

Conference Organizing and Chairing

Circumpolar Innovation Workshop: Making Science and Technology Work for the North conference

2015

Co-Organizer

- Assisted with the event planning, organization, facilitated activities and captured discussions during the conference held in Whitehorse, Yukon, November 25th - 27th.
- Presented the Circumpolar Innovation website deliverable during the final panel discussion on next steps.
- Drafted the conference report with Dr. Heather Hall.

Professional Development

Coaching Mentorship Workshop, Janice Gair Executive Coaching and Consulting, University of Saskatchewan, Saskatoon, SK. January 13, 2016.

2016

Training the Trainer: Facilitation on Aboriginal Communities, University of Saskatchewan, Saskatoon, SK. November 7, 2015.

2015

Saskatchewan Forum 2015, Conference Board of Canada, Saskatoon, SK. May 26-27, 2015.

2015

In-Design Training, University of Saskatchewan

2014

Introduction to Photovoice and Participant-Employed Photography in Qualitative Research, Innovations in Qualitative Research Conference, University of Saskatchewan, Saskatoon SK. June 11-13, 2012.

2012

Publications and Reports

Journal Articles

Published Papers

Coates, K., Holroyd, C., and Leader, J. (2014). Managing the Forgotten North: Governance Structures and Administrative Operations of Canada's Provincial Norths. *Northern Review (Special Collection)*, No. 38.

Accepted Papers

Swanson, L., Leader, J., and Landrie-Parker, D. (2015). Effectively Engaging with Indigenous Communities through Multi-Methods Qualitative Data Collection and an Engaged Communications Plan. *Engaged Scholar Journal*.

Submitted Papers

Poudrier, J., Brooks, C., Thoma, R., Wood, K., Kennedy, J., Leader, J. (2014). Discovering Culturally Safe Frameworks: Health Care Providers' Perspectives of Health and Health Care Practice in First Nations Communities. Submitted to the Journal of Holistic Nursing.

Poudrier, J., Shea, J., Leader, J., Brooks, C., Almond, N., Kennedy, J., and Whitecalf, S. (2014). "It awakened quiet places in my soul": First Nations Women's Experiences with Photovoice in a Community-Based Participatory Research Project. Submitted to Canadian Journal of Public Health.

Academic Research Reports

Schmeiser, P., Poudrier, J., Chapman, D., Thomlinson, W., Bens, S., Leader, J. (February 2015). "Collision and Convergence: Assessing and Maximizing the Mutual Benefits between 'Big Science', Social Sciences and the Humanities," *University of Saskatchewan*.

Theses and Dissertations

Leader, J. (December 2012). "Exploring socio-technical relations: perceptions of Saskatoon Transit's go-pass smartcard and electronic fare system," (Master's Thesis), *University of Saskatchewan*.

Workshop Reports

Hall, H. and Leader, J. (January 2016). "Highlights from the Circumpolar Innovation Workshop" Report for the *Circumpolar Innovation: Making Science and Technology Work for the North* conference, Whitehorse, Yukon, November 25-27th, 2015.

Community Reports and Consultations

Brooks, C., Leader, J., McDowell, M. (July 2013). "Sitoskatowin: Youth and Community Perspectives on Crime, Justice Initiatives and Community Well-being. A Report for The Battlefords Agency Tribal Chiefs (BATC) Communities," Report. *University of Saskatchewan*.

Poudrier, J., and Leader, J. (2012). "Iskwewak Miwayawak: Women Feeling Healthy - A Photovoice Project." Report. *University of Saskatchewan*.

Leader, J. (2013). Summary report: "circles of learning, circles of change: Engaging Community in Knowledge Translation Activities Regarding Child Sexual Abuse and Residential Schools." Report. *University of Saskatchewan*.

Media and News

Leader, J. and Wood, K. (February 2013). "'Shhh... talk about it.' A Knowledge Translation Project in Saskatoon to Engage the Community in Raising Awareness of Child Sexual Abuse and Residential School Impacts." RESOLVE News, 15(1). University of Manitoba.

https://umanitoba.ca/centres/resolve/media/February_2013.pdf

Conference Presentations and Invited Lectures

Invited Conference Papers and Panels

"*Aboriginal Entrepreneurship and Capacity Building*" Panel Discussion. Eighth Annual ANSER Conference at the Congress 2015 of the Humanities and Social Sciences June 3-5, 2015 University of Ottawa, Ontario 2015

"*Agency in Human-Machine Interaction: Perceptions of Saskatoon Transit's Go-Pass Smartcard and Electronic Fare System.*" The Canadian Sociological Association Annual Meeting, Wilfrid Laurier University, Waterloo, ON, May 30. 2012

Invited Presentations and Consultations

"Laboratory Light and Laboratory Life: An Ethnographic Study of the CLS." (with Jennifer Poudrier and Elizabeth Quinlan). Canadian Light Source, Saskatoon. April 26. 2010

Invited Lectures

"*Qualitative Research in Indigenous Communities: Building Northern Capacity through Entrepreneurship (BNCE) project as a Case Study*" (upcoming lecture title TBC), Course: Qualitative Research Methods, ENVS 898.3, School of Environment and Sustainability, University of Saskatchewan, SK, March 29, 2016. 2016

"*Re-Visualizing 'Mundane Technologies' in Society: The Mutual Shaping of Bus Riders' Experiences and the Go-Pass System,*" Course: Social Inequality and Health, Department of Sociology, University of Saskatchewan, SK, January 28. 2015

<i>“Visualizing ‘Mundane Technologies’ in Society: The Mutual Shaping of Bus Riders’ Experiences and the Go-Pass System,”</i> Course Sociology of Science and Knowledge, Department of Sociology, University of Saskatchewan, SK, September 30.	2013
<i>“Exploring Socio-Technical Relations: Perceptions of Saskatoon Transit’s Go-Pass Smartcard and Electronic Fare System,”</i> Course: Sociology of Health Illness and Health Care, Department of Sociology, University of Saskatchewan, SK, March 14 and January 21 (two dates).	2012
<i>“Exploring Socio-Technical Relations: Perceptions of Saskatoon Transit’s Go-Pass Smartcard and Electronic Fare System,”</i> Course: Sociology of Science and Knowledge, Department of Sociology, University of Saskatchewan, SK, October 17.	2011
<i>“Agency in Human-Machine Interaction: Perceptions of Saskatoon Transit’s Go-Pass Smartcard and Electronic Fare System,”</i> Course: Sociology of Science and Knowledge, Department of Sociology, University of Saskatchewan, SK, November 9.	2010
<i>“Negotiating the Body and Identity: Restructuring Agency through Human-Machine Interaction,”</i> Course: Sociology of Health and Illness, Department of Sociology, University of Saskatchewan, SK, January 21.	

Poster Presentations

“Department of Sociology” , Experiential Learning Expo, University of Saskatchewan.	2012
<ul style="list-style-type: none"> • Poster presentation promoting the Department of Sociology’s programs and areas of research available for students. 	

Honours, Awards & Grants

Outstanding Graduate Student Award , Canadian Sociological Association	2013
Student Travel Award , University of Saskatchewan	2012
Student Travel Award , Graduate Studies and Research, University of Saskatchewan	2012
Joseph-Armand Bombardier Canada Graduate Scholarship – Master’s Scholarship , Social Sciences and Humanities Research Council of Canada (SSHRC)	2011

Graduate Teaching Fellowship , University of Saskatchewan	2010
Graduate Scholarship , University of Saskatchewan	2010
Letter of Recognition , College of Arts and Science, University of Saskatchewan	2008
Membership , Golden Key International Honour Society	2006

Teaching and Related Experience

Technical Instruction and Training

Instructor, NVivo 11 Qualitative Research Software, ICNGD, University of Saskatchewan, August 2014 - September 2015. 2014-2015

Instructor, NVivo 10 Training Session, Social Sciences Research Laboratories (SSRL), University of Saskatchewan, November 2013 – January 2014. 2013-2014

Instructor, NVivo 9 Training Session, Department of Sociology, University of Saskatchewan, July 2012 – January, 2014. 2012-2014

Workshop Facilitation

Co-Facilitator, Masters of Northern Governance and Development (MNGD) Student Poster Seminar Workshop, ICNGD, September 25, 2015, with Dazawray Landrie-Parker and Michelle Suteau. 2015

Co-Facilitator, Communications Workshop and Website Design for the Kaska First Nation Daylu Dena Council, held in Lower Post B.C., March 26-26, 2015, with Dr. Heather Hall. 2015

Co-Facilitator, Workshop Presentation ICNGD, Fond du Lac, February 11, 2015, with Dr. Heather Hall, Dr. Lee Swanson, Dr. Greg Finnegan, Dazawray Landrie-Parker, Paola Chiste. 2015

Graduate Teaching Assistantships

Teaching Assistant, Studies in Addictions (SOC 347 and PUBH 847), Dr. Colleen Dell. Teaching Assistant, Graduate Teaching Fellowship, Department of Sociology, University of Saskatchewan. 2013

Teaching Assistant, Foundations in Sociology (SOC 111), Dr. Despina Iliopoulou. Teaching Assistant, Graduate Teaching Fellowship, Department of Sociology, University of Saskatchewan. 2010-2011

Student Tutoring

Other Research Activities and Creative Works

Website Development

Building Northern Capacity through Entrepreneurship (BNCE) Project: 2015
<http://northerncapacity.com>

- Website development and training

UArctic Thematic Network on the Commercialization of Science and Technology for the North: 2015
<http://circumpolarinnovation.com>

- Website development, training and technical support

Rural Policy Learning Commons (RPLC): <http://rplc-capr.ca/> 2015

- Website development, training and technical support

Kaska First Nation of the Daylu Dena Council website: 2015
<http://circumpolarinnovation.com/DDC/>

- Website development, implementation and training - a product of a communications workshop with community members

"Iskeewak Miwayawak - Women Feeling Healthy: The Cultural and Visual Context of Healthy Body Weight and Body Image among First Nations' Women in the Battlefords Tribal Council Region" research project: <http://btcihsphotovoiceresearch.usask.ca> 2009-2014

- Website design, maintenance and training

"Listening to Youth on Reserve" Project: <http://batcyouth.usask.ca> 2013

- Website design and training

Audio/Visual Creative Works

"Iskeewak Miwayawak - Women Feeling Healthy" research project. 2009-2014

- Created knowledge translation materials (See website: <http://btcihsphotovoiceresearch.usask.ca/photostory.html>):
 - Promotional posters
 - Photo journals
 - Slideshows and videos

"Listening to Youth on Reserve" Project 2013

- Created knowledge translation materials (See website: <http://batcyouth.usask.ca/project.html>):
 - A video featuring findings from the research including art, photos and graphs/charts from statistical analysis.
 - A photobook called: "Pehtawihk Oskayak: Listening to Youth Through Art."

- *Two posters: "Stories of Youth Through Art" and "Celebrating Youth Through Art."*

2010-2013

"Circles of Learning, Circles of Change" research project.

- Created knowledge translation materials including an awareness booklet in collaboration with participants and stakeholders.

Academic Service

Academic Memberships and Committees

2012-2013

Canadian Sociological Association (CSA) Membership

Vice President of Communications, Sociology Graduate Student's Association, Department of Sociology, University of Saskatchewan

2010-2012

- Responsible for website, SGSA communications and promotions

Golden Key International Honour Society Membership, University of Saskatchewan

2006

- Academic achievement for the top 15% of students in their year of study

2013

Students Supervision and Mentorship Activities

2014

Nicole Almond, Social Work student. September – December, 2013

2014

Megan Goldsney, Social Work student, January – April, 2014

Jill Meldrum, Department of Sociology, January – April, 2014

Academic Volunteer Experience

Department Promotion Volunteer, "Experience US," Sociology Department, University of Saskatchewan. October 4.

2013

Departmental Promotion Volunteer, Experiential Learning Fair, Department of Sociology and the University Learning Centre, August 2.

2012

Department Promotion Volunteer, "Experience US," Sociology Department, University of Saskatchewan. October 14.

2011