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Facebook Usage among Urban Indigenous Youth at Risk

Channarong Intahchomphoo, André Vellino, and Odd Erik Gundersen

Help for vulnerable Indigenous youth frequently arrives too late. It normally takes quite some time for family, friends, community members, and government agencies to identify Indigenous youth at risk.¹ It also usually takes a certain amount of time for people voluntarily seeking help to inform their family members and friends about their situation.² In addition, some matters carry social stigmas, such as and especially drug addiction and mental health. The delayed identification of Indigenous youth at risk poses great challenges for how to provide them with assistance and treatment.

In this research, we used social computing perspectives to study how urban Indigenous youth in Ottawa, Canada express themselves on Facebook when they are or believe they are at risk, either physically or psychologically. Social computing is described by Farzindar and Inkpen as “an area of computer science that is concerned with the intersection of social behaviour and computational systems.”³ Similarly, Facebook defines social computing as “computational techniques and tools to study human social behavior.”⁴ The field of social computing is thus comprised of two essential elements: social behavior and the computer systems that enable this behavior.

This research project focuses only on Facebook, and not other social media platforms, because in the past decade Facebook has continued to be the social media platform with the highest global adoption.⁵ Some previous studies on Indigenous peoples’ use of Facebook state that the application has increasingly become integrated into many aspects of Indigenous peoples’ daily activities and has contributed to their well-being, specifically in connecting and maintaining relationships with other people, enabling cyberactivism and digital archives to preserve and promote their culture, and

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offering health education and virtual health support groups. Clearly, the intersection of Facebook and well-being of Indigenous peoples deserves further investigation by academic communities. This is particularly important given that urban Indigenous youth use Facebook and other social media daily, and heavily. In the summer of 2017, we conducted five focus group discussions in Ottawa, Canada, with twenty urban Indigenous youth ages 14 to 35. We coded the data generated from the discussions based on patterns identified through thematic analysis.⁶

This article contributes an analysis of how urban Indigenous youth at risk express themselves on Facebook. We have found that many urban Indigenous youth generated and shared content on Facebook when they were, or felt, at risk physically or psychologically. The topics ranged from personal emotions to Indigenous community issues. While most of our focus-group discussion participants did not see any content in their Facebook newsfeed that was relevant to risk management, health services, or public services, they were able to recognize if a friend was at risk through the language used and tone of the content that they would generate or share on Facebook. We believe that the findings from this study could be used to flag users at risk and develop Facebook newsfeed algorithms that mitigate the risks from online sites of these flagged users and connect them to health and public services.

INDIGENOUS PEOPLES AND SOCIAL MEDIA USAGE: BACKGROUND AND LITERATURE REVIEW

UNESCO defines youth as the population group ranging from fifteen to thirty-five years of age.⁷ Youth, according to that definition, are the most at-risk age group in populations across societies and cultures.⁸ Transitioning through this stage of life requires coping with changes in hormones, physical state, mood, and social behavior in their exploration of identity and quest for autonomy. Youth in vulnerable and impoverished populations face even higher levels of risk, since the challenges of poverty and vulnerability compound with transitional challenges.⁹

In this research article, the term *at risk* means that individuals face a high probability of being exposed to physical and/or psychological harm or danger. We focused on urban Indigenous youth for this study because they face enormous risks in terms of health care, education, housing, unemployment, racial and cultural discrimination, substance addiction, murdered and missing Indigenous women, sexual abuse and domestic violence, and youth suicide.¹⁰ Additionally, this paper uses the term *Indigenous* throughout as the preferred term in academic writing and among Indigenous peoples in Canada. The term is also internationally recognized by the United Nations Declaration on the Rights of Indigenous Peoples. However, Canadian constitutional laws recognize only three groups of Indigenous peoples: “Indians” (under the Indian Act and often referred to as First Nations), “Inuit,” and “Métis.”

We chose to narrow the geographic scope of this study to urban populations in the city of Ottawa, Ontario, given that data from Statistics Canada shows that the majority of Indigenous peoples live in the province of Ontario and mostly in urban areas rather than on reserves, which are often more rural and remote. Census data collected in

2011 indicates that out of Canada's total Indigenous population of 1.4 million, 21.5 percent (301,425) reside in Ontario.¹¹ This amounts to 2.4 percent of the population of Ontario as a whole, considerably less than the national percentage of Indigenous peoples in Canada, 4.3 percent.¹² The percentage of Indigenous peoples with registered Indigenous status living off-reserve in Canada stands at 50.7.¹³ Many of them now live in populous urban areas of Ontario such as Toronto, Ottawa, Thunder Bay, Sudbury, Hamilton, and Sault Ste. Marie.¹⁴

The capital of Canada, Ottawa has a population of approximately one million people.¹⁵ As the seat of Parliament and the main location of the federal government, important policy decisions are made in Ottawa that impact all Indigenous communities across the country. According to the 2011 statistics, about 18,180 Indigenous people live in Ottawa.¹⁶ The number is quickly growing and many of the Indigenous people in the city are young, with four in ten being under the age of twenty-five.¹⁷ Ottawa is therefore a suitable location for this study as it attracts Indigenous youth from many communities within Ontario and from other provinces as well.

Given that urban centers pose significant risks for urban Indigenous youth,¹⁸ it is critically important to develop an understanding of how urban Indigenous youth express themselves on Facebook when feeling and/or being at risk.

In recent years, researchers have looked at social media and Internet usage by Indigenous peoples who live in rural and remote areas around the world, mainly in Australia, Canada, United States, and New Zealand.¹⁹ The purpose of social media usage among Indigenous peoples includes cyberactivism,²⁰ digital channels to record and promote their culture,²¹ connecting and maintaining relationships with other people,²² and seeking health information as well as establishing virtual health support groups.²³ Social media gives a voice to the voiceless. For Indigenous peoples, social media empowers their communities.²⁴ Since they are socially and economically disadvantaged, their voices are not often heard in the mainstream media. The Internet and social media provide them with an opportunity to send their messages out to the world directly.²⁵ Moreover, Indigenous peoples can use social media to encourage people to protest against inequality and injustice and demonstrate in support of civil rights.²⁶ As will be clear in the following discussion, however, no academic literature currently documents the voices of urban Indigenous youth and analyzes how they are expressing themselves on Facebook when they feel, or actually are, at risk.

Yueh-Min Huang, Mu-Yen Chen, and Shuen-Shiang Mo found that social media can be used as a tool to preserve and promote Indigenous culture for educational purposes²⁷ and Sheena Kennedy Dalseg and Frances Abele, as well as Wan Shun Eva Lam and colleagues, note that this is especially true for Indigenous languages and music.²⁸ Research by Timothy Pasch provides a good example of Indigenous cultural preservation and dissemination using YouTube, on which Indigenous peoples can showcase their old cultural videos.²⁹ Indigenous youth, especially, are engaging on social media and are active online content producers. These youth use social media to record and transmit their cultural memories, revealing pride in their Indigenous cultural heritage.³⁰

Used as tools to connect and maintain relationships with other people within and between local Indigenous communities,³¹ social media create community awareness and inform the community about information and events.³² Facebook is an extremely well designed social media tool for this kind of group communication. Anthony K. Webster shows that the Navajo people are no different from most community groups in the way that they express and exchange opinions on Facebook about their local government.³³ In Canada, a study by Catherine Middleton and Barbara Crow notes that the Indigenous peoples of the Lac Seul Band Council in Ontario use Facebook more than their local community websites to keep up-to-date with community news.³⁴ Another similar study by Heather Molyneaux and colleagues examines the use of social media in the remote Indigenous communities in the Sioux Lookout region of northwestern Ontario, where many Indigenous communities spread out over a large geographical area.³⁵ They use social media to maintain relationships and share and exchange information with other people within and between communities.

Social media can not only assist healthcare providers in connecting with Indigenous peoples in hard-to-reach locations,³⁶ but also can be an online source of health information and education.³⁷ Healthcare providers use social media for telemedicine in order to improve access to healthcare services and health education among Indigenous patients living in remote areas around the globe.³⁸ In the United States, healthcare providers use YouTube videos produced in local Indigenous languages to disseminate information to Indigenous communities about respiratory diseases, especially those that result if they do not use woodstove filters.³⁹

RESEARCH QUESTIONS AND METHODOLOGY

Social Media and Youth Suicide

Social media has both positive and negative links to youth suicide. Social media gives an opportunity quickly to detect teenage suicidal tendencies in real time and on a large scale.⁴⁰ Contemporary youth often express suicidal thoughts on social media even before talking face-to-face to friends, family members, or healthcare professionals about their mental health issues. Because they are always connected through the Internet and social media, social media has become a powerful monitoring tool for suicide among youth, especially when data-mining technology, artificial intelligence, and machine-learning algorithms are applied.⁴¹ Facebook was found to be extremely helpful for youth with suicidal thoughts to be able to recognize their own mental health conditions. It helps them to agree to receive psychiatric and medical treatment.⁴²

In 2011, Facebook launched a tool for people to report suicidal content. Users can report if they see their Facebook friends have posted suicidal messages. This Facebook feature was designed to identify people with self-harm potential. Facebook will link the person with suicide prevention hotlines.⁴³ There are some Facebook studies focusing on university students. College students could notice and recognize the suicidal content of their peers' posts on Facebook. They intervened by calling or having a face-to-face conversation with friends who posted suicidal content on social media⁴⁴ or report to the school staff.⁴⁵ In this situation, Facebook is utilized for helping youth to combat

with stigma associated with mental health issues. Usually, suicidal thoughts are kept private. Social media has completely changed how youth communicate to other people about their suicide attempts.⁴⁶

The cause of several youth suicides, cyberbullying through social media involves one person or group of people targeting the adolescent victims by sending or posting harmful and hurtful messages, pictures, and videos. Personality disorders and jealousy about those in close relationships are found to be factors associated with cyberbullying among young people.⁴⁷ Furthermore, a metadata and content analysis of videos on Vine, a video-based social network, detected a number of videos that exhibited cyberbullying threats to young people.⁴⁸ Erick Messias, Kristi Kindrick, Juan Castro, and Eric Rice and colleagues report that female youth are more often both the perpetrators and victims of cyberbullying compared to their male counterparts.⁴⁹ Often, the perpetrators of cyberbullying remain anonymous and not many young people inform their parents, guardians, or teachers about the cyberbullying they have encountered.⁵⁰ They often do not seek help but try to cope by themselves.⁵¹ Youth protect themselves from cyberbullying by deleting or blocking abusive Facebook social media users. Furthermore, some of them decide to stop using the platform.⁵² Social media platforms such as Yelp, Facebook, and YouTube address the need to counter cyberbullying by including policies in their corporate values and terms of service for their platforms that prohibit hate speech, a form of cyberbullying that may contribute to teenage suicide.⁵³

In a differing scenario, youth with suicidal ideation seek to build relationships with people using online social media as a means of combating their social isolation. Social media can be harmful when users observe that other people's lives appear to be much happier than their own. Such perceptions, whatever their basis in fact, for this group can lead to even higher suicide risk.⁵⁴ In addition, Stoney Brooks and Phil Longstreet conclude that young people become more exposed to emotional messages when they spend more time on Facebook.⁵⁵ These messages could lead to accumulating bad feelings and increasing levels of depression and suicide. Related research by Julie A. Phillips argues that social media enhances the way people communicate and connect, but for some people, it still does not decrease loneliness.⁵⁶ Social isolation and misleading information are damaging for youth, particularly those coping with mental and psychiatric disorders.

Two questions guided this research:

Research question 1: How are urban Indigenous youth expressing themselves on Facebook when they feel, or are, at risk?

Research question 2: In what ways can Facebook data and interactions be used to identify urban Indigenous youth at risk and enable Facebook systems to address their needs?

In the summer of 2017, coauthor Channarong Intahchomphoo conducted five focus groups with a total of twenty urban Indigenous youth who were living in Ottawa at the time, with ages ranging from fourteen to thirty-five. Each discussion lasted between thirty and sixty minutes. The focus group method helps to obtain qualitative insights and feedback from research participants.⁵⁷

Recruitment

The authors recruited participants by displaying posters in Indigenous organizations in Ottawa. These types of Indigenous organizations included Indigenous governance organizations, Indigenous community-service and Indigenous health organizations, and Indigenous news organizations. We chose those organizations for recruitment purposes because their main offices were located in Ottawa. The posters used for recruitment purposes included information about the use of Facebook, research objectives, potential research contributions, focus group and demographic survey procedures, estimated time of participation, eligibility criteria, voluntary participation, reimbursement for participants travel expenses, data confidentiality, meeting time and place, research ethics approval, and researchers' contact information. With the help of our Indigenous organization partners in Ottawa, we also recruited through their internal announcements and by word-of-mouth. Given the unpredictable number of participants who would show up at each scheduled focus group, one of our scheduled groups had a single participant and thus became a one-on-one interview. It was nonetheless appropriate to conduct this interview since it would be unkind to turn that participant away. Between two and eight participants comprised the other three focus groups.

Data Collection

We held our focus groups in private meeting spaces located in the Indigenous organizations' headquarters. At the beginning of each focus group, participants were asked to provide demographics and social media usage information by answering survey questions. The questions covered their age, gender, education, occupation, income, family status, language, Indigenous title, birthplace, and the extent of their access to social media. This was followed by the focus groups, which were semi-structured and followed discussion guidelines that allowed participants to freely express their personal opinions and to add their own comments beyond the prepared questions. The focus group inquiries concerned their personal use of Facebook: the types of content they read, generated, and shared; their usage when they felt at risk either physically or psychologically; how they felt about topics, motivations, challenges, Facebook newsfeeds, online security, and privacy; their observations about what happens when fellow Indigenous friends seem to be at risk, judging by the language or verbal tone of the Facebook content that they have generated or shared; and support of Indigenous culture by generating and sharing content on Facebook. All participants were reimbursed forty dollars (CND) in travel expenses for participating in this research.

Data Analysis

The focus groups were conducted in person and audio recorded. The data generated from the focus groups was manually transcribed in English and then coded based on patterns identified through thematic analysis.⁵⁸ This approach allowed us flexibly to explore common patterns and relations across the focus group data from multiple

TABLE 1. SUMMARY CODEBOOK OF THE FOCUS GROUP DISCUSSIONS

Major themes	Second level themes
1. They are concerned with their shared Indigenous culture and the wellbeing of family and friends	<ul style="list-style-type: none"> • Indigenous culture posts • Personal posts to communicate with family and friends
2. The content of their personal status updates showed a lot of variability	<ul style="list-style-type: none"> • General updates • Checked in at a location
3. They expressed their physical or psychological status when they felt at risk and posted media (i.e., text, photos, videos) to validate their at risk status	<ul style="list-style-type: none"> • Reaching out to people to ask for help • Posting about sad feelings: crying, school and friend problems, cutting or hanging themselves • Expressing complex feelings or thoughts • Indigenous community issues: living in foster care, missing and murdered Indigenous women and girls
4. They reported that there was a lack of content for addressing risk, such as risk management, health, or public services	<ul style="list-style-type: none"> • No: mostly advertisements • Yes: crisis/suicide hotline ads • Concerned about online security or privacy on Facebook
5. They noticed when friends were at risk by observing changes in language or tone of the content on Facebook posts	<ul style="list-style-type: none"> • Grammar • Out of character between offline and online • Posted pictures and text when they are drunk or depressed • Change of Facebook relationship status • Suicidal ideas
6. They believed that Indigenous culture supported their posts and were avenues to support and promote their culture	<ul style="list-style-type: none"> • Open to new things • Support and promote Indigenous culture

participants. Below is a summary codebook of the focus group discussions showing how the coding process was carried out and how the themes were derived (table 1).

Channarong Intahchomphoo created the codebook for the themes and was the principal coder for all the focus group data. André Vellino and Odd Erik Gundersen guided the overall analysis and discussion. The data analysis process began during the data collection period and continued through data coding and interpretation with regular in-person and online meetings and email exchanges between the three authors of this study. We resolved different opinions on the interpretation of the findings through consensus. Initially, we each reviewed data analysis separately, then we integrated everyone’s comments and worked more on discordant components together. Based on our research questions and discussion guidelines, we developed predetermined codes and then created additional codes to capture specific emergent themes as we became more familiar with the data. Then we did second-level and third-level thematic analysis to identify relationships between themes. Given that the number of

our discussions was not large, we were able to make comparisons between each discussion to find the similarities and differences as a means of further improving our data analysis with special attention to the participants' age and gender. Data saturation of this project was reached at the third focus group; however, we continued to conduct two more focus groups to confirm thematic saturation.

Within the existing Indigenous ontology of using Facebook to connect with youth at risk, Indigenous organizations use the platform to listen to news related to Indigenous peoples' well-being and engage with, or provide help to, urban Indigenous youth at risk.⁵⁹ In Canada, this is a social reality among its Indigenous communities. We are proposing an epistemologically complementary way of knowing and learning more about the social reality of Indigenous youth at risk and their social media usage. We view Indigenous youth as leaders who can make real changes for their peoples to improve living conditions and to exercise rights that are equal to those of the dominant population. In publishing the results of this research, we offer an additional channel through which the voices and stories of our research participants can be heard. These ideas shaped and motivated our approach in this research project.

In October 2017, we presented our preliminary findings to the Indigenous organization partners who helped us recruit participants for this research. This process helped to enhance the quality of our findings.⁶⁰ The feedback from the partner organizations was positive and they indicated that all our findings were interpreted accurately and portrayed the social reality of many urban Indigenous youth in Ottawa. In the end, we had to remove data from one participant in our focus groups, since that person did not provide his or her Indigenous title in our survey questionnaires. Their data did not qualify for the study because we wanted to ensure we obtained data exclusively from urban Indigenous youth. Therefore, the number of qualified participants in this study dropped from 21 to 20.

Research Ethics

This research received ethics approval from the Health Sciences and Science Research Ethics Board of the University of Ottawa (File# H02-17-01). We asked research participants to give written consent of their willingness to participate in the focus groups. They were given as much time as needed to read the consent form, prior to the focus groups taking place. We also read the contents of the consent form aloud to the participants prior to the start of each focus group. In the results section, we omitted all personally identifiable information including participants' names, residential areas, and physical traits. We used pseudonyms for our participants' observations reported in this paper. No data from this research was stored online in a cloud-computing environment. Data were not, and will not, be shared with any third parties. We informed participants that there may be some psychological or emotional discomfort and social repercussions to participating in this study such as negative judgments by other focus group participants that were known or associated with this study, especially when they were asked about how they interacted with Facebook when they felt or were at risk. We provided participants with a list of Indigenous organizations in Ottawa where

they could seek help and support for any potential psychological or emotional discomfort that might have occurred after participating in this research. Participants did not have to answer questions they did not want to answer. They could decide to end or withdraw from the focus groups at any time they wished. Their participation in this study thus was completely voluntary.

Engaging with Indigenous Scholarship

This paper was written with the approval of three Indigenous scholars/activists and one Indigenous organization that asked to remain anonymous. They had an opportunity to review the drafts of this work. The engagement with Indigenous scholarship occurred at the beginning of this research project. Some of the Indigenous scholars we consulted with have provided a letter to support our project and ethics approval application to the Health Sciences and Science Research Ethics Board of the University of Ottawa. The letter indicated how this research project would be beneficial and would incur no harm toward the Indigenous communities. Moreover, the work we have done to better understand Indigenous peoples' histories in Canada beyond reading literatures was by attending Indigenous communities' events in Ottawa where we met many Indigenous elders, community leaders, and social workers. They were helpful in providing feedback and guidance on how the research project might be improved. This community engagement took place over several months involving in-person meetings, telephone conversations, and email communications. After this research project ended, the first researcher, Channarong Intahchomphoo, kept in touch with the Indigenous individuals and organizations that assisted the project.

Sharing Researcher Background and Positionalities with Participants

We shared our background and positionalities with the participants during the recruitment and data collection. Channarong Intahchomphoo identified himself to research participants at the time as an Asian, middle-class male doctoral student who was born and received early education in Thailand, and an immigrant who has lived in Canada for the past decade. Channarong Intahchomphoo learned about and witnessed the suffering caused by the colonization in Southeast Asian countries and this experience informs his belief that the well-being of Indigenous peoples in North America who also suffered from colonial domination must always be a priority. Coauthors André Vellino and Odd Erik Gundersen identified as male university professors in Information Studies and Computer Science with experience conducting interdisciplinary research.

PARTICIPANT CHARACTERISTICS

Twenty urban Indigenous youth in Ottawa participated in five focus groups, nine females and eleven males, aged between 14–20 ($n=13$), 21–25 ($n=3$), 26–30 ($n=3$), and 31–35 ($n=1$). None of our focus group participants indicated other gender identities or preferred not to answer (table 1). Eleven participants reported high school as

TABLE 2. SEX AND AGE GROUP OF THE TWENTY FOCUS GROUP PARTICIPANTS

Sex:	
Female	9
Male	11
Others, please specify	0
Age group:	
14-20	13
21-25	3
26-30	3
31-35	1

their highest academic achievement or current education, five self-identified with less than a high school education, three had a trade certificate or diploma, and one had an undergraduate degree. In terms of occupation, twelve participants in our focus groups identified themselves as students. One person was employed in an administrative and secretarial capacity. Another person worked in a professional job and two participants were in skilled trade jobs. Four participants were unemployed. Out of all of the urban Indigenous youth in our focus groups, fifteen reported their annual income as less than \$10,000 CDN, three focus group participants earned between \$10,000 and \$24,999 CDN per annum, and two participants reported their income to be between \$25,000 to \$49,999 CDN per year. Sixteen of our focus group participants were single or never legally married and four participants were legally married or in common-law family status. None of the participants reported their being separated, divorced, or widowed.

While English and French are the official languages of Canada, Indigenous people have their own languages. All of our focus group participants speak, read, and write English. Four participants also speak French. At least one focus group participant could speak one of the following Indigenous languages: Inuktitut, Algonquin, Oji-Cree, and Ojibway. In addition, Swampy Cree was the spoken Indigenous language of three participants in our focus groups. Seven focus group participants said they could read French. Moreover, at least one person from our focus groups could read Inuktitut, Oji-Cree, Swampy Cree, Plains Cree, or Ojibway. In addition to being able to write in English, participants reported being able to write in Inuktitut, Oji-Cree, Swampy Cree, and French. According to the Indian Act of Canada, fifteen of our focus group participants were First Nations including both status and non-status, one was Inuit, and four were Métis (see table 2 below).

Eight participants were born in Ottawa, two were born in Moose Factory, Ontario and another two in Kingston, Ontario. Two participants declined to specify their birthplaces. Among the rest of our focus group participants born outside Ottawa,

TABLE 3. LANGUAGE DATA OF THE TWENTY FOCUS GROUP PARTICIPANTS

Language(s): They speak (More than one selection allowed)	
Inuktitut	1
Algonquin	1
Oji-Cree	1
Swampy Cree	3
Ojibway	1
French	4
English	20
Language(s): They read (More than one selection allowed)	
Inuktitut	1
Oji-Cree	1
Swampy Cree	1
Plains Cree	1
Ojibway	1
French	7
English	20
Language(s): They write (More than one selection allowed)	
Inuktitut	1
Oji-Cree	1
Swampy Cree	1
French	1
English	20

the following residential areas were documented as birthplaces, with each the birthplace of a single participant: Sarnia, Ontario; Edmonton, Alberta; Iqaluit, Nunavut; Maniwaki, Quebec; and Regina and Lloydminster, Saskatchewan (see fig. below). The twelve focus group participants who were born outside of Ottawa moved to the city between 1990 and 2017. We found focus group participants had different motivations for moving. Five persons moved to follow their parents, three moved for school, and two participants moved to Ottawa because they were in the foster care system. Four participants each identified another motivation for moving to Ottawa: to receive health care, to live with their partner, to raise kids, and to find a job.

To connect to Facebook, our focus group participants used more than one device and also used various types. They identified six technology platforms for accessing Facebook. Their methods of connecting to the internet included home internet, mobile

phones, access in publicly funded organizations, and free Wi-Fi made available by businesses (see table 3 below).

All twenty focus group participants currently use Facebook and other social media tools as well including Twitter, YouTube, Google+, Pinterest, Instagram, Tumblr,



FIGURE. Map of birthplaces of the ten focus group participants born outside Ottawa. World of Maps (open access), <https://www.worldofmaps.net/maps.htm>.

TABLE 4. FACEBOOK CONNECTIVITY DATA OF THE TWENTY FOCUS GROUP PARTICIPANTS

Devices (More than one selection allowed)	
Desktop computer	8
Laptop	12
Tablet	6
Mobile phone	18
Connect to the Internet in order to access Facebook (More than one selection allowed)	
Home Internet	16
Use Internet at the publicly funded organizations such as schools, hospitals, public libraries, etc.	15
Data plan on mobile phone	6
Wi-Fi at businesses	3

TABLE 5. SOCIAL MEDIA TOOLS DATA OF THE TWENTY FOCUS GROUP PARTICIPANTS

Social media tools (More than one selection allowed)	
Facebook	20
Twitter	6
YouTube	19
Google +	10
Pinterest	9
Instagram	15
Tumblr	2
SnapChat	4
Musical.ly (TikTok)	1
Reddit	4
LinkedIn	3

SnapChat, Musical.ly (TikTok), Reddit, and LinkedIn (see table 4 below). Thirteen of the twenty focus group participants used Facebook every day, four used it occasionally, and three used Facebook once a week.

Nineteen focus group participants indicated that they used Facebook to connect and maintain relationships with other people. Nine participants used Facebook to seek information. Two participants indicated that they used Facebook for cyberactivism and to preserve and promote Indigenous culture. At the end of our survey questionnaires, several focus group participants wrote some additional comments about their Facebook usage. The comments include, “I do not post often,” “I just talk to friends on Facebook and to see their posts,” “Not really on it much,” “Facebook is good for families,” “Family conversations,” and “I use Facebook to post my artwork as well as to stay connected with others.”

RESULTS

Our data supports six main conclusions about this population of Indigenous people:

1. They are concerned with their shared Indigenous culture and the well-being of family and friends.

Facebook posts related to Indigenous culture were discussed in two of our five focus groups. This topic created interesting discussions among our focus group participants. Several participants agreed that the Indigenous culture-related posts on Facebook

were very valuable for Indigenous peoples' online communities. Participants explained ways that they shared culture, including "I posted my artworks on Facebook. Trying to get some responds how it looked" (Mikom, male, aged 31–35); "I used Facebook to message friends and also used it to look other people's artworks like music, movies" (Megis, female, aged 14–20); "I posted about pow wow and anything that was going on in the [Indigenous] community" (Waabigwan, female, aged 21–25).

Our five focus groups with urban Indigenous youth in Ottawa also suggested that they read, generated, and shared Facebook posts about the well-being of their family and friends. Three focus group participants, Ishkode (male, aged 14–20), Wenona (female, aged 21–25), Nibaa (male, aged 26–30) indicated that they generally used Facebook to look at or comment on what other people posted and then would share some of those posts. Moreover, Namid (female, aged 26–30) explained in detail how she used Facebook to keep herself up to date about her family and friends' well-being: "I read everyone's posts from my friends, my family, and my boyfriend's family. A lot of them were sick and they posted that on Facebook." Interestingly, some focus group participants used Facebook as a place to store and view their family's happy memories. As Ishkode (male, aged 14–20) explained, "I used [Facebook] to view family posts," like Megis (female, aged 14–20), who also described, "I used [Facebook] to view old photos of our family. We had it pile up. We had stuff from 2008 onward. It was like a time capsule."

In four out of five focus groups, eighteen participants discussed their humorous posts on Facebook. They said that they used the platform to read, generate, and share different kinds of humorous posts. Bineshii (male, aged 14–20) explained, "I shared other people's memes [an amusing picture or video widely shared on social media]. They were like little comic books." Our focus group participants also discussed other types of humorous Facebook posts. Waagosh (male, aged 14–20) explained, "I just posted stupid jokes," while others explained, "I used to use Facebook every day for finding jokes. Every morning I would post a bunch of weird things" (Ziibi, male, aged 31–35), and from Aki, female, aged 14–20, "If someone went to the Walmart and stole their shopping carts or something like that. They posted on their Facebook like a little blog. I did not know why it was amusing for me. I liked to share them... If I looked at it and I enjoyed it, I would share it."

2. The content of their personal status updates showed a lot of variability.

Participants in all five focus groups gave a variety of answers when they discussed whether they read, generated, or shared their personal status updates on Facebook. Zenibaa (female, aged 14–20) told us, "I texted people, shared pictures, and wrote what I was doing." Zenibaa posted personal status updates on Facebook all the time, as a normal activity in her everyday life, whereas Bineshii (male, aged 14–20), said that "I did not share much about my personal status [but] I posted my check-in location every once a while." If Bineshii shared personal status updates less frequently, Nagamo (female, aged 14–20), described that she rarely updated her personal status, especially posts related to food or eating out, as "people did not care what I ate."

3. *They expressed their physical or psychological status when they felt at risk and posted media (i.e., text, photos, videos) to validate their at risk status.*

“When I was upset, I needed somebody to message me to talk me out of stuff. I thought it was a good way to reach out to people asking for help” (Zenibaa).

“If a family member died, I shared it because I knew other family members felt the same and would do the same thing [posting their sad feelings on Facebook]” (Aki).

“Sometimes I had complex feelings or thoughts, I would reword and reformat it and then I would roll it out on Facebook or Twitter. After I put it out, I left it. I did not go back if anyone left a like or notification or anything. It was as a way to vent. Sometimes, I needed to let a few things go but not all of it” (Mikom).

As three of our focus group participants Zenibaa (female, aged 14–20), Aki (female, aged 14–20), and Kikom (male, aged 31–35) gave us details about personal motivations for generating and sharing content on Facebook when they felt at risk physically or psychologically, the rest of the focus group participants intently listened. Six of our twenty focus group participants reported that they did not generate or share personal content on Facebook when they felt, or were, at risk.

However, some of them noticed many of their Facebook friends did actually post content when they felt or were in danger. As Namid (female, aged 26–30) said, “When I was upset and very mad, I did not want to touch Facebook. I did not want to share something that I would regret after . . . because the whole world would see that. But everyone [her Facebook friends] was talking about their emotions on Facebook.” Moreover, Waawaatesi (female, aged 21–25) put into words that “I saw [that] my Facebook friends posted about their at-risk situations, hugely.” Immediately, Waagosh (male, aged 14–20) added to Waawaatesi’s comment, “All the time. I scrolled down, their [Facebook] posts mostly were about their depressions and sadness.” This supports the findings that at-risk status is posted on Facebook and that the platform is a channel for sharing personal physical and emotional well-being information with their peers.

Additionally, when at risk, urban Indigenous youth generated and shared content on Facebook such as text, photos, and video. The topics ranged from personal emotions to Indigenous community issues. They had different motivations and no difficulties posting on Facebook when they felt, or were, at risk.

“Just text. I did not post photos when I was crying” (Aki, female, aged 14–20) and (Azaadi, male, aged 14–20).

“Through text, I was not going to take a photo of my face [to post on Facebook] when I felt low” (Mikom, male, aged 31–35).

“I had some friends on Facebook said they were so sad, [and it] helped me. They would also post pictures of they were crying too” (Nagamo, female, aged 14–20).

“I saw a lot of negative [Facebook] posts. Sometime there was no picture. They were just texts. Sometimes I saw videos people trying to cut or hang themselves. They were very messed up” (Wenona, female, aged 21–25).

All five focus groups showed that urban Indigenous youth generated and sometimes shared content such as text, photos, and video on Facebook when they felt at risk physically or psychologically. In some serious cases, Facebook was used as a tool to livestream suicide attempts among contacts within the Indigenous youth population. The topics that urban Indigenous youth at risk generated and shared ranged from personal emotions to critical social issues in Indigenous communities. As Zenibaa (female, aged 31–35) described, “I lived in children services foster care. I just talked about my problems on my Facebook such as schools, friends, my day, and stuff like that. It has been three years that I lived in the foster system.” Mikom (male, aged 31–35), classified as “personal emotions” his Facebook posts when he felt, or was, at risk. Additionally, Mikom told us why he shared his personal emotions on Facebook: he believes that if you hold onto something and do not let it go, it will build up inside of you. Mikom said that he wrote about his negative emotions on Facebook as a way to cope with complex emotions.

Waawasstesi (female, aged 21–25) underscored the broader trends underlying the topics that urban Indigenous youth at risk generated and shared on Facebook. She “saw a lot of stuff about Indigenous girls that have gone missing. That is a huge issue in the Indigenous communities. I saw posts about Indigenous girls that have gone missing from North Bay and went the way to my reserve and to Alberta because I had a big network. So when I was on Facebook, I saw stuff happening all over the place.” Waawasstesi further explained that finding missing and murdered Indigenous women and girls has motivated her to generate and share posts about them. She hoped people would see pictures of the missing Indigenous women and girls on Facebook and that they would recognize the faces when they saw them in person somewhere. She spoke about her actual experience of a cousin who went missing when they lived together in Toronto. Fortunately, her cousin came home two days later; as it turned out she was simply sleeping at a friend’s house. At the time, her family put a missing person post on Facebook and reported it to the police. People in Waawasstesi’s Facebook network urgently shared her post and it spread very quickly, showing her how fast a Facebook post could spread to a wide audience.

Finally, none of our focus group participants reported any challenges that might prevent them from posting on Facebook when they felt, or were, at risk.

4. They reported that there was a lack of content for addressing risk, such as risk management, health, or public services.

Eighteen participants from our five focus groups indicated that they did not see any content in their Facebook newsfeed that was relevant to risk management, health services, or public services. As Aki (female, aged 14–20) said, “I mostly saw advertisements for clothes or something like that.” However, two participants indicated that they saw risk management content in their Facebook newsfeed. Bineshii (male, aged 14–20), told us he saw crisis hotline ads and he thought it was good information for urban Indigenous youth at risk. Nagamo (female, aged 14–20), was the second participant who saw the risk management content in their Facebook newsfeed. She

explained, “I saw the suicide help hotline. It showed up on the side [of the Facebook page] as an ad. But sometimes it was on my newsfeed. I thought it was a good thing. If someone was at risk, and they did not want to talk with anyone they knew. They could just call and ended up talking with a totally [sic] stranger.”

Among our five focus groups with urban Indigenous youth at risk in Ottawa, there were sixteen focus group participants out of the total of twenty who reported that they did not feel concerned about their own online security or privacy on Facebook. As Bineshii (male, aged 14–20) described, “My Facebook did not really have much to see that I was worried about what people would see. Facebook is a platform that you needed to be open.” Also, Zenibaa (female, aged 14–20) explained to us that “There was no point using Facebook if you were really concerned about privacy. When you posted, it would be out there. You could delete it, but some people could still screenshot them. It would practically be still out there. You could not really delete anything off the Internet.”

Namid (female, aged 26–30) expressed a different point of view. She was worried about her online security and privacy when she used Facebook but she did not give us her reasons. Conversely, Wenona (female, aged 21–25) openly discussed her online security and privacy concerns, stating “We did not know who were out there looking at your Facebook. Even it was set as private. Other people could still see your stuff because they could find a way to hack your Facebook.” Immediately, Ziiibi (male, 31–35) added his comment, “Yes, they could use other people’s [Facebook] accounts as a way to read [your posts].” Waawaatesi (female, aged 21–25) also commented, “[she] was scared of her photos on Facebook being leaked.”

5. They noticed when friends were at risk by observing changes in language or tone of the content on Facebook posts.

Nineteen of twenty participants from our five focus groups responded that they could tell if one of their friends was at risk from the language or verbal tone of the content that they generated or shared on Facebook. Only Zenibaa (female, aged 14–20) said no to this question, mainly because she did not usually pay attention to what other people posted on Facebook. In contrast, most of our focus group participants could in fact tell, as Bineshii (male, aged 14–20) explained,

I could tell by the way they were speaking, what their sentences were like. One of my friends, he was really super good in English. But one time he got very mad and posted on Facebook and his grammar was absolutely horrible. That was how I knew he was actually mad and he was not joking. Another way I could tell was [that] they used the F-word swearing.

Additionally, the following is a summary of the thoughts voiced by other focus group participants on the matter. Mikom (male, aged 14–20) said that if you knew someone, you usually also knew how they acted and what was their regular behavior. If they posted something on Facebook that was out of character, you knew that they were going through a difficult time. Another comment was made by Nibaa (male, aged

26–30) based on his real experience with his father’s family: one of his cousins posted on Facebook asking people to please take care of his children after he committed suicide. People started commenting on his Facebook asking him not to self-harm. His Facebook post caused people to go to his house right away and they had to break the door to get into his house. His Facebook post was a cry for help. Nibba went on to say that he believes that when people post their pictures on Facebook when they are drunk, it could indicate that they were coping with a mental health problem. Another way for Nibba to tell whether some of his friends were at risk was when they did not use their Facebook for a while and then all of a sudden posted something very emotional. Then they disappeared and came back later to post more emotional messages on Facebook.

Another comment by Namid (female, aged 26–30) revealed that some of her friends posted crazy pictures, for example showing them being very drunk or depressed. Some friends also showed on their Facebook relationship status that they had transitioned out of a relationship, and into another relationship with a different person or into and out of relationship with the same person again and again. This kind of Facebook interaction was what Namid used to tell if her friends were at risk. Another female focus group participant, Waawaatesi (aged 21–25) commented that she noticed that her Facebook friends who were at risk were usually the victims of bullying. It caused them to post their suicidal ideas on Facebook. Waawaatesi said that children at thirteen or fourteen years old are insecure and sensitive and likely victims of bullying.

Another comment by Azaadi (male, aged 14–20) was that he could tell if his friends were at risk of suicide through the language or verbal tone of the content they posted on Facebook. For example, he told us that “most of [the] people [I know on Facebook] said [on Facebook] that they did not want to live anymore.” Most of the people he knows on Facebook have expressed the desire to die. Please note here that Azaadi (male, aged 14–20) is an Inuit youth originally from Iqaluit. He was sent to live with his grandparents in Ottawa a few years ago. His Inuit community in Iqaluit, Nunavut suffers from a suicide epidemic among their youth populations.⁶¹

6. They believed that Indigenous culture supported their posts and were avenues to support and promote their culture.

All our twenty focus group participants believed that their Indigenous culture supported them in posting content on Facebook. Ziibi (male, aged 31–35) discussed that Indigenous culture is very open to new things including Facebook. Moreover, our focus group participants also believed that the postings on Facebook are a way to support and promote their Indigenous culture. As Nagamo (female, aged 14–20) described it: “Sometimes I put my beading works [on Facebook], if I beaded, I posted it.” Bineshii (male, aged 14–20) then commented, “I posted pictures of me at pow-wows [on Facebook].” Zenibaa (female, aged 14–20) explained that she sometimes was even asked by Indigenous organizations to post on her Facebook about what the organizations were doing to advertise their social and cultural activities and programs for urban Indigenous youth, because Zenibaa knew many Indigenous youth and connected with

them on Facebook. In addition, Namid (female, aged 26–30) explained her strong support toward the Indigenous culture and Facebook usage that “I always posted [on Facebook] about our culture and I wanted to share [our] Indigenous culture.”

DISCUSSION: STUDY FINDINGS AND LIMITATIONS

As previously stated, this project aimed to find answers for two research questions. Our first research question is about how urban Indigenous youth are expressing themselves on Facebook when they feel or are at risk. Our findings show that most of urban Indigenous youth in Ottawa generated and shared content on Facebook when they felt at risk physically or psychologically. They posted text, photos, and videos to express their complex feeling and thoughts on Facebook as a way to ask for help and to vent their frustrations. Their Facebook posts showed them crying, doing acts of self-harm, and talking about their problems with school and friends, living under the government’s child-welfare system, and awareness of issues confronting Indigenous communities across the country, including the missing and murdered Indigenous women and girls in Canada.

In addition, data from our focus groups showed that some urban Indigenous youth had used Facebook as a tool to livestream their suicide attempts and express self-harming ideation. This practice is very dangerous and requires immediate intervention. Spread of this kind of Facebook usage should be countered, especially among vulnerable populations. Comparing our findings for the first research question with the existing literature shows that both Indigenous and non-Indigenous youth do express themselves on Facebook when they feel or are at risk, including the suicidal thoughts as similarly reported in recent empirical studies.⁶² Before the social media technology era, suicidal thoughts and other mental health illness issues tended to be kept in private, but social media venues such as Facebook have changed how youth generate and share information with other people about their suicide attempts, in many cases even before they would tell their friends and family about their mental health illnesses in person.

The second research question investigates ways in which Facebook data and interactions can be used to identify urban Indigenous youth at risk and enable Facebook systems to address their needs. Our research reveals how urban Indigenous youth could tell if one of their friends was at risk as a result of: (1) the language or verbal tone of the content that their friend has generated or shared on Facebook; (2) the images they used; and (3) the changes in their relationship status. We believe these indicators could be used to develop Facebook algorithms that can help identify urban Indigenous youth at risk and provide them with targeted information that could help reduce the risk and connect them to mental health services. When comparing our data with the existing literature, our findings are similar to studies conducted with non-Indigenous college students on their responses to suicidal content and mental health status updates on social media.⁶³ Therefore, we found both Indigenous and non-Indigenous youth could easily notice and recognize the suicidal content of their friends’ posts on Facebook.

However, our focus groups also showed that with one or two exceptions, notably Nagamo (female, aged 14–20), most of our interviewees did not see any content in their Facebook newsfeed that was relevant to risk management, health services, or public services. We identify this issue as being worthy of further research. We think Facebook should continue to create a supportive environment that promotes resilience among youth at risk, as the findings reported in this paper that touched on the youth-suicide prevention aspect and social support led by friends and family members of Indigenous youth at risk after they learned about those resources from Facebook posts and notifications. Therefore, our findings indicate that Indigenous communities in Ottawa have a strong social support environment both online and offline and it showed the resilience of Indigenous peoples to overcome difficulties together. We suggest Facebook should work on developing operational strategies on how to encourage users to generate and share more social support posts, especially among youth from underserved communities including Indigenous youth. This action would highlight how the youth are resilient to overcome difficulties in lives lived with social support from their communities. Facebook also needs to learn what are the online and offline effects that youth at risk experience when they have social support conversations with friends and family on Facebook during challenging times.

Furthermore, this study showed that urban Indigenous youth at risk sometimes generate and share content (text, photos, and video) on Facebook because they want to vent and seek help from others. There is a real need to develop technologies that could better detect Indigenous youth at risk based on the content they post on Facebook, such as the methods used in the work on sentiment analysis by Farzindar and Inkpen,⁶⁴ and provide alternative information for them to feel supported in their Facebook experience such as changing their newsfeed or providing them with an online referral system to access the healthcare services that they need when at-risk behavior is detected.

The same mechanism mentioned above could be applied to advertisements on Facebook. Useful information could be injected into the Facebook newsfeed of Indigenous youth in the same way that targeted Facebook advertisements currently sell products, as it appears Nagamo (female, aged 14–20) experienced. Facebook advertisements are highly personalized, depend on users' "likes," the online behavior of users, keywords in posts, and the like. For example, Indigenous organizations could advertise for their crisis help services and suicide prevention interventions under the same conditions as Facebook advertisements. The ads could target Facebook users who identified themselves as Indigenous peoples, are in the youth age range, and live near the Indigenous organization that used the Facebook platform to promote their crisis help ads. It would closely align with Facebook's existing work on developing suicide-prevention tools.⁶⁵

We also argue that Facebook is not only a forum in which to communicate states of distress with friends and family, but a part of the problem of perpetuating them. Urban Indigenous youth experience copycat suicides, cyberbullying, and online harassment on Facebook leading to greater at-risk situations for them. Youth in Canada who are exposed to their schoolmates' suicides were found to have increased rates of suicide ideation and suicide attempt.⁶⁶ The research presented in this paper confirms the fact that urban Indigenous youth are exposed to content related to their friends'

suicide attempts on Facebook, and hence that Facebook could be expected to pose an increased risk of suicide for the urban Indigenous youth. However, we think that Facebook could be used to reduce risks as well. The Facebook newsfeed and advertising can be shown to urban Indigenous youth at risk and help change their behavior by getting them to seek help. The root causes of many social issues and problems among Indigenous youth in Canada are poverty and discrimination, and social media such as Facebook are not among them.

Our study had some limitations. Since Ottawa is a capital city, there may be some unidentified features about this location that bias our sample. We did not conduct this research in other cities in Ontario, nor did we conduct research in other provinces and territories of Canada where many other urban Indigenous youth also reside. Thus, we do not aim to report findings of all urban Indigenous youth at the national level.

CONCLUSION

Most urban Indigenous youth in Ottawa expressed themselves on Facebook when they were or felt at risk physically or psychologically. Urban Indigenous youth at risk generated and shared content on their Facebook because they wanted to vent, but also because they are looking for help from others, confirming our hypothesis that urban Indigenous youth use the capabilities of Facebook to communicate to their peers about their being in at-risk situations in ways both explicit (e.g., live stream their suicide attempts and sharing personal emotions) and implicit (e.g., discuss Indigenous community issues such as missing and murdered Indigenous women and girls which did not happen to them personally, but nevertheless made them feel somewhat at risk).

We think Facebook (now rebranded as Meta) is a platform that could be leveraged to help reduce risk among urban Indigenous youth if we can better detect how they express themselves on Facebook when at risk. We hope that the findings in this paper can assist and encourage the development of Facebook newsfeed algorithms to mitigate their risks.

We urge researchers and government agencies to look into this issue seriously. Researchers could conduct more studies to find solutions on how to use Facebook to communicate with urban Indigenous youth at risk at the time they need help the most. For government agencies, they should think about interventions and policies that will help to improve lives of all urban Indigenous youth through Facebook.

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NOTES

1. Channarong Intahchomphoo, André Vellino, and Odd Erik Gundersen, "Connecting with Youth at Risk: Indigenous Organizations Use of Facebook," *The Journal of Community Informatics* 15 (2019): 98–115, <https://doi.org/10.15353/joci.v15i.3430>.
2. Laura M. Frey, Anthony Fulginiti, DeQuincy Lezine, and Julie Cerel, "The Decision-Making Process for Disclosing Suicidal Ideation and Behavior to Family and Friends," *Family Relations* 67, no. 3 (2018): 414–27, <https://doi.org/10.1111/fare.12315>.
3. Atefeh Farzindar and Diana Inkpen, *Natural Language Processing for Social Media*, 3rd ed. (San Rafael, CA: Morgan & Claypool, 2020), 140.
4. Meta, "Research at Facebook: Social Computing," 2016, <https://web.archive.org/web/20160922192047/https://research.facebook.com/socialcomputing>.
5. DataReportal, "Facebook Stats and Trends," 2021, <https://datareportal.com/essential-facebook-stats>.
6. Virginia Braun and Victoria Clarke, "Using Thematic Analysis in Psychology," *Qualitative Research in Psychology* 3, no. 2 (2006): 77–101, <https://doi.org/10.1191/1478088706qp063oa>.
7. UNESCO, "What Do We Mean by 'Youth?'" 2016, <http://www.unesco.org/new/en/social-and-human-sciences/themes/youth/youth-definition/>.
8. Michael Ungar, Linda Liebenberg, Roger Boothroyd, Wai Man Kwong, Tak Yan Lee, John Leblanc, Luis Duque, and Alexander Makhnach, "The Study of Youth Resilience across Cultures: Lessons from a Pilot Study of Measurement Development," *Research in Human Development* 5, no. 3 (2008): 166–80, <https://doi.org/10.1080/15427600802274019>.
9. D. Wayne Osgood, E. Michael Foster, and Mark E. Courtney, "Vulnerable Populations and the Transition to Adulthood," *The Future of Children* 20, no.1 (2010): 209–29, <https://doi.org/10.1353/foc.0.0047>.
10. Patricia Boksa, Ridha Joobar, and Laurence J. Kirmayer, "Mental Wellness in Canada's Aboriginal Communities: Striving toward Reconciliation," *Journal of Psychiatry & Neuroscience* 40, no. 6 (2015): 363–65, <https://doi.org/10.1503/jpn.150309>; Daniel Drache, Fred Fletcher, and Coral Voss, "What the Canadian Public Is Being Told about the More Than 1200 Missing and Murdered Indigenous Women and First Nations Issues: A Content and Context Analysis of Major Mainstream Canadian Media, 2014–2015," 2016, <https://doi.org/10.2139/ssrn.2758140>.
11. Statistics Canada, "Table 2: Number and Distribution of the Population Reporting an Aboriginal Identity and Percentage of Aboriginal People in the Population, Canada, Provinces and Territories, 2011," 2015, <https://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-011-x/2011001/tbl/tbl02-eng.cfm>.
12. Statistics Canada, "Table 3: Distribution of First Nations People, First Nations People with and without Registered Indian Status, and First Nations People with Registered Indian Status Living on or off Reserve, Canada, Provinces and Territories, 2011," 2015, <https://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-011-x/2011001/tbl/tbl03-eng.cfm>.
13. Ibid.
14. Ontario Federation of Indigenous Friendship Centres, "Urban Aboriginal People in Ontario," 2013, <http://www.offc.org/about-us/general-information/urban-aboriginal-people-ontario>.
15. City of Ottawa, "City of Ottawa Annual Report 2014," 2014, http://documents.ottawa.ca/sites/documents.ottawa.ca/files/documents/2014_annual_report_en.pdf.
16. Statistics Canada, "2011 National Household Survey Profile, Ottawa," 2015, <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/details/page.cfm?Lang=E&Geo1=CSD&Code1=3506008&Data=Count&SearchText=Ottawa&SearchType=Begins&SearchPR=01&A1=All&B1=All&Custom=&TABID=1>.

17. Statistics Canada, "2011 National Household Survey: Data Tables," 2017, <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/dt-td/Rp-eng.cfm?LANG=E&APATH=5&DET AIL=0&DIM=0&FL=A&FREE=0&GC=3506008&GID=0&GK=3&GRP=0&PID=107504&PRID=0&PTYPE=105277&S=0&SHOWALL=0&SUB=0&Temporal=2013&THEME=94&VID=0&VNAMEE=&VNAMEF=>.
18. Cari L. Miller, Margo E. Pearce, Akm Moniruzzaman, Vicky Thomas, Chief Wayne Christian, Martin T. Schechter, and Patricia M. Spittal, "The Cedar Project: Risk Factors for Transition to Injection Drug Use among Young, Urban Aboriginal People," *Canadian Medical Association Journal* 183, no. 10 (2011): 1147–54, <https://doi.org/10.1503/cmaj.101257>.
19. Stéphane Gauvin, Kevin Granger, and Marianne Lorthiois, "Analog Citizens," *Electronic Commerce Research* 15, no. 3 (2015): 365–86, <https://doi.org/10.1007/s10660-015-9185-4>; Melissa K. Filippi, Charlotte McCloskey, Chandler Williams, Julia White Bull, Won S. Choi, K. Allen Greiner, and Christine M. Daley, "Perceptions, Barriers, and Suggestions for Creation of a Tobacco and Health Website among American Indian/Alaska Native College Students," *Journal of Community Health* 38, no. 3 (2013): 486–91, <https://doi.org/10.1007/s10900-012-9634-0>; Lyndon Ormond-Parker and Robyn Sloggett, "Local Archives and Community Collecting in the Digital Age," *Archival Science* 12, no. 2 (2012): 191–212, <https://doi.org/10.1007/s10502-011-9154-1>; Rob McMahon, Michael Gurstein, Brian Beaton, Susan O'Donnell, and Tim Whiteduck, "Making Information Technologies Work at the End of the Road," *Journal of Information Policy* 4 (2014): 250–69, <https://doi.org/10.5325/jinfopoli.4.2014.0250>; Maria Kopacz and Bessie Lee Lawton, "The YouTube Indian: Portrayals of Native Americans on a Viral Video Site," *New Media & Society* 13, no. 2 (2011): 330–49, <https://doi.org/10.1177/1461444810373532>; Rob McMahon, "From Digital Divides to the First Mile: Indigenous Peoples and the Network Society in Canada," *International Journal of Communication* 8, no. 1 (2014): 2002–26, <https://ijoc.org/index.php/ijoc/article/view/2456/1187>; Miriam Sobré-Denton, "Virtual Intercultural Bridgework: Social Media, Virtual Cosmopolitanism, and Activist Community-Building," *New Media and Society* 18, no. 8 (2016): 1715–31, <https://doi.org/10.1177/1461444814567988>; Ian Watson, "Balancing Opportunity and Affordability: Use of Mobile Phones in Remote Aboriginal and Torres Strait Islander Communities," *Australian Journal of Telecommunications and the Digital Economy* 3, no. 3 (2015): 17–30, <https://doi.org/10.18080/ajtde.v3n3.20>.
20. Barney Warf, "Diverse Spatialities of the Latin American and Caribbean Internet," *Journal of Latin American Geography* 8, no. 2 (2009): 125–45, <https://doi.org/10.1353/lag.0.0063>; Sarah Elwood and Agnieszka Leszczynski, "New Spatial Media, New Knowledge Politics," *Transactions of the Institute of British Geographers* 38, no. 4 (2013): 544–59, <https://doi.org/10.1111/j.1475-5661.2012.00543.x>.
21. Yueh-Min Huang, Mu-Yen Chen, and Shuen-Shiang Mo, "How Do We Inspire People to Contact Aboriginal Culture with Web 2.0 Technology?," *Computers and Education* 86 (2015): 71–83, <https://doi.org/10.1016/j.compedu.2015.03.001>; Sheena Kennedy Dalseg and Frances Abele, "Language, Distance, Democracy: Development Decision Making and Northern Communications," *Northern Review* 41 (2015): 207–40, <https://doi.org/10.22584/nr41.2015.009>.
22. Watson, "Balancing Opportunity and Affordability," 17–30.
23. Justine Stephens-Reicher, Aytari Metcalf, Michelle Blanchard, Cheryl Mangan, and Jane Burns, "Reaching the Hard-to-Reach: How Information Communication Technologies Can Reach Young People at Greater Risk of Mental Health Difficulties," *Australasian Psychiatry* 19, no. 1 suppl. (2011): S58–61, <https://doi.org/10.3109/10398562.2011.583077>; Bronwyn Carlson, "The 'New Frontier': Emergent Indigenous Identities and Social Media," in *The Politics of Identity: Emerging Indigeneity*, ed. Michelle Harris, Martin Nakata, and Bronwen Carlson (University of Technology Sydney E-Press, 2013), 147–68; E-Liisa Laakso, Kylie Armstrong, and Wayne Usher, "Cyber-Management of

People with Chronic Disease: A Potential Solution to eHealth Challenges," *Health Education Journal* 71, no. 4 (2012): 483–90, <https://doi.org/10.1177/0017896911408813>.

24. Guy Singleton, Maria Fay Rola-Rubzen, Kado Muir, Deeva Muir, and Murray McGregor, "Youth Empowerment and Information and Communication Technologies: A Case Study of a Remote Australian Aboriginal community," *GeoJournal* 74, no. 5 (2009): 403–13, <https://doi.org/10.1007/s10708-009-9277-6>.

25. Warf, "Diverse Spatialities"; Miriam Sobré-Denton, "Virtual Intercultural Bridgework: Social media, Virtual Cosmopolitanism, and Activist Community-Building," *New Media and Society* 18, no. 8 (2016): 1715–31, <https://doi.org/10.1177/1461444814567988>; Marcela Bruognach, Marc Craps, and A. R. P. J. Dewulf, "Including Indigenous Peoples in Climate Change Mitigation: Addressing Issues of Scale, Knowledge and Power," *Climatic Change* 140, no. 1 (2017): 19–32, <https://doi.org/10.1007/s10584-014-1280-3>.

26. Elwood and Leszczynski, "New Spatial Media, New Knowledge Politics."

27. Huang, et al., "How Do We Inspire People."

28. Dalseg and Abele, "Language, Distance, Democracy"; Wan Shun Eva Lam and Doris S. Warriner, "Transnationalism and Literacy: Investigating the Mobility of People, Languages, Texts, and Practices in Contexts of Migration," *Reading Research Quarterly* 47, no. 2 (2012): 191–215, <https://doi.org/10.1002/RRQ.016>.

29. Timothy Pasch, "Starting Fire with Gunpowder Revisited: Inuktitut New Media Content Creation in the Canadian Arctic," *Études/Inuit/Studies* 34, no. 2 (2010): 61–80, <https://doi.org/10.7202/1004071ar>.

30. Jennifer Rowsell, Ernest Morrell, and Donna E. Alvermann, "Confronting the Digital Divide: Debunking Brave New World Discourses," *The Reading Teacher* 71, no. 2 (2017): 157–65, <https://doi.org/10.1002/trtr.1603>.

31. Dalseg and Abele, "Language, Distance, Democracy"; Watson, "Balancing Opportunity and Affordability," 17–30; Jason C. Young, "Canadian Inuit, Digital Qanuqtuurunnarniq, and Emerging Geographic Imaginations," *Geoforum* 86 (2017): 53–62, <https://doi.org/10.1016/j.geoforum.2017.09.001>; Jia Tina Du and Jelina Haines, "Indigenous Australians' Information Behaviour and Internet Use in Everyday Life: An Exploratory Study," *Information Research: An International Electronic Journal* 22, no. 1 (2017); Genevieve Marie Johnson, "Technology Use among Indigenous Adolescents in Remote Regions of Australia," *International Journal of Adolescence and Youth* 21, no. 2 (2016): 218–31, <https://doi.org/10.1080/02673843.2013.823553>; Nicola J. Bidwell, Heike Winschiers-Theophilus, Gereon Koch Kapuire, and Mathias Rehm, "Pushing Personhood into Place: Situating Media in Rural Knowledge in Africa," *International Journal of Human-Computer Studies* 69, no. 10 (2011): 618–31, <https://doi.org/10.1016/j.ijhcs.2011.02.002>.

32. Singleton, et al., "Youth Empowerment and Information;" McMahon, et al., "Making Information Technologies."

33. Anthony K. Webster, "'Don't Talk about It': Navajo Poets and Their Ordeals of Language," *Journal of Anthropological Research* 68, no. 3 (2012): 399–414, <https://doi.org/10.3998/jar.0521004.0068.306>.

34. Catherine Middleton and Barbara Crow, "Building Wi-Fi Networks for Communities: Three Canadian Cases," *Canadian Journal of Communication* 33, no. 3 (2008): 419–41.

35. Heather Molyneux, Susan O'Donnell, Crystal Kakekaspan, Brian Walmark, Philipp Budka, and Kerri Gibson, "Social Media in Remote First Nation Communities," *Canadian Journal of Communication* 39, no. 2 (2014), 275–88, <https://doi.org/10.22230/cjc.2014v39n2a2619>.

36. Stephens-Reicher, et al., "Reaching the Hard-to-Reach"; Carlson, "The 'New Frontier,'" 147–68.

37. Tanja Bosch, "Digital Journalism and Online Public Spheres in South Africa," *Communication: South African Journal for Communication Theory and Research* 36, no. 2 (2010): 265–75, <https://doi.org/10.1080/02500167.2010.485374>.
38. Kathleen Mathieson, Joan S. Leafman, and Mark B. Horton, "Access to Digital Communication Technology and Perceptions of Telemedicine for Patient Education among American Indian Patients with Diabetes," *Journal of Health Care for the Poor and Underserved* 28, no. 4 (2017): 1522–36; Louise Jones, Kristen Jacklin, and Megan E. O'Connell, "Development and Use of Health-Related Technologies in Indigenous Communities: Critical Review," *Journal of Medical Internet Research* 19, no. 7 (2017): e256, <https://doi.org/10.2196/jmir.7520>.
39. Symma Finn, Mose Herne, and Dorothy Castille, "The Value of Traditional Ecological Knowledge for the Environmental Health Sciences and Biomedical Research," *Environmental Health Perspectives* 125, no. 8 (2017), <https://doi.org/10.1289/EHP858>.
40. Anna Robert, Josep Maria Suelves, Manuel Armayones, and Sivakamy Ashley, "Internet Use and Suicidal Behaviors: Internet as a Threat or Opportunity?," *Telemedicine and E-Health* 21, no. 4 (2015): 306–11, <https://doi.org/10.1089/tmj.2014.0129>.
41. Tiong-Thye Goh and Yen-Pei Huang, "Monitoring Youth Depression Risk in Web 2.0," *Vine* 39, no. 3 (2009): 192–202, <https://doi.org/10.1108/03055720911003969>; Brad J. Bushman, Katherine Newman, Sandra L. Calvert, Geraldine Downey, Mark Dredze, Michael Gottfredson, Nina G. Jablonski, Ann S. Masten, Calvin Morrill, Daniel B. Neill, Daniel Romer, and Daniel W. Webster, "Youth Violence: What We Know and What We Need to Know," *American Psychologist* 71, no. 1 (2016): 17–39, <https://doi.org/10.1037/a0039687>; Thin Nguyen, Dinh Phung, Bo Dao, Svetha Venkatesh, and Michael Berk, "Affective and Content Analysis of Online Depression Communities," *IEEE Transactions on Affective Computing* 5, no. 3 (2014): 217–26, <https://doi.org/10.1109/TAFFC.2014.2315623>.
42. Amir Kumar Ahuja, Krystine Biesaga, Donna M. Sudak, John Draper, and Ashley Womble, "Suicide on Facebook," *Journal of Psychiatric Practice* 20, no. 2 (2014): 141–46, <https://doi.org/10.1097/01.pra.0000445249.38801.d1>; Megan A. Moreno, Dimitri A. Christakis, Katie G. Egan, Lauren A. Jelenchick, Elizabeth Cox, Henry Young, Hope Villiard, and Tara Becker, "A Pilot Evaluation of Associations between Displayed Depression References on Facebook and Self-Reported Depression Using a Clinical Scale," *The Journal of Behavioral Health Services & Research* 39, no. 3 (2012): 295–304, <https://doi.org/10.1007/s11414-011-9258-7>; Megan Andreas Moreno, Lauren A. Jelenchick, Katie G. Egan, Elizabeth Cox, Henry Young, Kerry E. Gannon, and Tara Becker, "Feeling Bad on Facebook: Depression Disclosures by College Students on a Social Networking Site," *Depression and Anxiety* 28, no. 6 (2011): 447–55, <https://doi.org/10.1002/da.20805>.
43. Jo Bell, "Harmful or Helpful? The Role of the Internet in Self-Harming and Suicidal Behaviour in Young People," *Mental Health Review Journal* 19, no. 1 (2014): 61–71, <https://doi.org/10.1108/MHRJ-05-2013-0019>.
44. Darcy J. Corbitt-Hall, Jami M. Gauthier, Margaret T. Davis, and Tracy K. Witte, "College Students' Responses to Suicidal Content on Social Networking Sites: An Examination Using a Simulated Facebook Newsfeed," *Suicide and Life-Threatening Behavior* 46, no. 5 (2016): 609–24, <https://doi.org/10.1111/sltb.12241>; Katie G. Egan, Rosalind N. Koff, and Megan A. Moreno, "College Students' Responses to Mental Health Status Updates on Facebook," *Issues in Mental Health Nursing* 34, no. 1 (2013): 46–51, <https://doi.org/10.3109/01612840.2012.718044>.
45. Kurt Michael, John Paul Jameson, Rafaella Sale, Carissa Orlando, Marisa Schorr, Morgan Brazille, Anne Stevens, and Cameron Massey, "A Revision and Extension of the Prevention of Escalating Adolescent Crisis Events (PEACE) Protocol," *Children and Youth Services Review* 59 (2015): 57–62, <https://doi.org/10.1016/j.childyouth.2015.10.014>.
46. Moreno, et al., "Feeling Bad on Facebook."

47. Laura A. Stockdale, Sarah M. Coyne, David A. Nelson, and Daniel H. Erickson, "Borderline Personality Disorder Features, Jealousy, and Cyberbullying in Adolescence," *Personality and Individual Differences* 83 (2015): 148–53, <https://doi.org/10.1016/j.paid.2015.04.003>.
48. Rahat Ibn Rafiq, Homa Hosseinmardi, Sabrina Arredondo Mattson, Richard Han, Qin Lv, and Shivakant Mishra, "Analysis and Detection of Labeled Cyberbullying Instances in Vine, a Video-Based Social Network," *Social Network Analysis and Mining* 6, no. 1 (2016): 1–16, <https://doi.org/10.1007/s13278-016-0398-x>.
49. Erick Messias, Kristi Kindrick, and Juan Castro, "School Bullying, Cyberbullying, or Both: Correlates of Teen Suicidality in the 2011 CDC Youth Risk Behavior Survey," *Comprehensive Psychiatry* 55, no. 5 (2014): 1063–68, <https://doi.org/10.1016/j.comppsy.2014.02.005>; Eric Rice, Robin Petering, Harmony Rhoades, Hailey Winetrobe, Jeremy Goldbach, Aaron Plant, Jorge Montoya, and Timothy Kordic, "Cyberbullying Perpetration and Victimization among Middle-School Students," *American Journal of Public Health* 105, no. 3 (2015): 66–72, <https://doi.org/10.2105/AJPH.2014.302393>.
50. Mohan Bharwaney and Azan Marwah, "Personal Data Privacy in the Digital Age," *Hong Kong Law Journal* 43, no. 3 (2013): 801–34.
51. John Chapin, "Adolescents and Cyber Bullying: The Precaution Adoption Process Model," *Education and Information Technologies* 21, no. 4 (2016): 719–28, <https://doi.org/10.1007/s10639-014-9349-1>; Katie Crosslin, and Mandy Golman, "Maybe You Don't Want to Face It"—College Students' Perspectives on Cyberbullying," *Computers in Human Behavior* 41 (2014): 14–20, <https://doi.org/10.1016/j.chb.2014.09.007>; Alison Virginia King, "Constitutionality of Cyberbullying Laws: Keeping the Online Playground Safe for Both Teens and Free Speech," *Vanderbilt Law Review* 63, no. 3 (2010): 845–84.
52. John Chapin, "Third-Person Perception and Facebook," *International Journal of Cyber Behavior, Psychology and Learning* 4, no. 3 (2014): 34–44, <https://doi.org/10.4018/ijcbpl.2014070103>.
53. Laura DeNardis and Andrea M. Hackl, "Internet Governance by Social Media Platforms," *Telecommunications Policy* 39, no. 9 (2015): 761–70, <https://doi.org/10.1016/j.telpol.2015.04.003>.
54. Amy Singleton, Paul Abeles, and Ian C. Smith, "Online Social Networking and Psychological Experiences: The Perceptions of Young People with Mental Health Difficulties," *Computers in Human Behavior* 61, (2016): 394–403, <https://doi.org/10.1016/j.chb.2016.03.011>.
55. Stoney Brooks and Phil Longstreet, "Social Networking's Peril: Cognitive Absorption, Social Networking Usage, and Depression," *Cyberpsychology: Journal of Psychosocial Research on Cyber-space* 9, no. 4 (2015), <https://doi.org/10.5817/CP2015-4-5>.
56. Julie A. Phillips, "A Changing Epidemiology of Suicide? The Influence of Birth Cohorts on Suicide Rates in the United States," *Social Science & Medicine* 114 (2014): 151–60, <https://doi.org/10.1016/j.socscimed.2014.05.038>.
57. Jyrki Kontio, Laura Lehtola, and Johanna Bragge, "Using the Focus Group Method in Software Engineering: Obtaining Practitioner and User Experiences," in *Proceedings of 2004 International Symposium on Empirical Software Engineering*, 2004, 271–80, <https://doi.org/10.1109/ISESE.2004.1334914>.
58. Braun and Clarke, "Using Thematic Analysis in Psychology," 77–101.
59. Intahchomphoo, et al., "Connecting with Youth at Risk."
60. Channarong Intahchomphoo, email communication, October 18, 2017.
61. Eduardo Chachamovich, Laurence J. Kirmayer, John M. Haggarty, Margaret Cargo, Rod McCormick, and Gustavo Turecki, "Suicide among Inuit: Results from a Large, Epidemiologically Representative Follow-Back Study in Nunavut," *The Canadian Journal of Psychiatry* 60, no. 6 (2015): 268–75, <https://doi.org/10.1177/070674371506000605>.

62. Goh and Huang, "Monitoring Youth Depression Risk in Web 2.0"; Bushman, et al., "Youth Violence: What We Know and What We Need to Know"; Nguyen, et al., "Affective and Content Analysis of Online Depression Communities."
63. Corbitt-Hall, et al., "College Students' Responses to Suicidal Content on Social Networking Sites"; Egan, et al., "College Students' Responses to Mental Health Status Updates on Facebook."
64. Farzindar and Inkpen, "Natural Language Processing for Social Media."
65. Norberto Nuno Gomes de Andrade, Dave Pawson, Dan Muriello, Lizzy Donahue, and Jennifer Guadagno, "Ethics and Artificial Intelligence: Suicide Prevention on Facebook," *Philosophy & Technology* 31 (2018): 669–84, <https://doi.org/10.1007/s13347-018-0336-0>.
66. Sonja A. Swanson and Ian Colman, "Association between Exposure to Suicide and Suicidality Outcomes in Youth," *Canadian Medical Association Journal* 185, no. 10 (2013): 870–77, <https://doi.org/10.1503/cmaj.121377>.

