

Frozen Screens: Discourses of Nunavummiut Internet

Submitted by Kareena Coelho

to Goldsmiths, University of London

for the Degree of Doctor of Philosophy

Declaration of Authorship

I, Kareena Coelho, declare that this thesis and the work presented in it are my own, and the result of my original research. Where information has been derived from other sources, this has been indicated within the thesis.

A handwritten signature in blue ink, appearing to read "Kareena Coelho". The signature is written in a cursive style with some loops and flourishes.

Signature

Acknowledgements

My warmest thanks go to the interviewees, the Nunavut Research Institute, everyone in the UK, Toronto, Ottawa, Malmö and Nunavut who provided me with feedback and advice, my supervisor David Morley, and to my family.

Abstract

This interdisciplinary project examines discourses of internet in Nunavut, a territory in Northern Canada. It has two main arguments: that internet in Nunavut is implicated in correlated discourses of frustration and potential, and that internet in the territory is articulated as having multiple faces and facets. Internet in Nunavut, this thesis argues, is experienced as a media technology, as a tool for communication, as political, as failing and frustrating, as online content, as physical infrastructure, and as potential. In making its arguments, the thesis engages with debates about internet governance, the cultural specificity of internet, and the definition of internet itself.

Primary research methods for this thesis included: interviews conducted over the telephone or Skype in London (UK), face to face interviews in Ottawa, Toronto and Iqaluit, the analysis of archival materials (in particular, government reports), as well as a limited period of participant-observation at the Community Access Program site in Iqaluit (the capital of Nunavut).

The first empirical chapter in the thesis (*Chapter 4: "So frustrating"*) examines narratives of Nunavummiut users concerning their experiences of internet; the second (*Chapter 5: Fractious Collaborations*) examines how some Northern internet activists have lobbied the federal government to alter its internet policy, as a means of tapping into Nunavummiut internet's potential; and the third (*Chapter 6: A Local Connection*) and final empirical chapter explores the Community Access Program (which provides internet access free of charge to the Nunavummiut public), as a means of linking macro-perspectives and discourses of internet politics with the micro-perspectives of user narratives.

Table of Contents

Map of Canada.....	6
Map of Nunavut.....	7
Chapter 1: Introduction.....	8
Part I: Project Background	
Chapter 2: A Review of the Literature.....	28
Chapter 3: On Methodology.....	73
Part II Empirical Research	
Chapter 4: “So frustrating”: Nunavummiut Internet User Discourses of Frustration, Planning and Potential.....	102
Chapter 5: Fractious Collaborations: Nunavummiut Internet Advocacy.....	126
Chapter 6: A Local Connection: CAP and Nunavummiut Internet	178
Chapter 7: Concluding Thoughts	203
Works Cited.....	222
Appendices.....	241

Map of Canada



Figure 1. Map of Canada, Nunavut highlighted in orange. (Nunavut Location Map Canada. *Emaps World*. Web. Accessed 15 July 2016. Retrieved from: <http://www.emapsworld.com/nunavut-location-map-canada.html>).

Map of Nunavut



Figure 2. Map of Nunavut, with communities (Community Information. Department of Executive and Intergovernmental Affairs. *Government of Nunavut*. Web. Accessed 15 July 2016. Retrieved from: <http://www.gov.nu.ca/eia/information/community-information>).

Chapter 1: Introduction

Introduction

Nunavut is a territory in the Eastern Canadian Arctic¹ that is largely populated by the Inuit, an indigenous group. With a land area of approximately two million square kilometres, the territory is vast but it has a fairly small population. As of April 2016, the Government of Nunavut has estimated the territory's population to be 37,315 (Nunavut Quick Facts, Nunavut Bureau of Statistics, n.d.). The territory has 25 communities and is divided into three administrative regions: the Qikiqtaaluk region (comprising the east of Nunavut, it is the most populous region in the territory, and includes Iqaluit, the capital city), the Kitikmeot region (which encompasses the northwest area of Nunavut) and the Kivalliq region (which comprises the southwest of the territory).

As of 2016, 89 per cent of Canadians living in Canada's Southern regions have access to internet within their homes (CRTC 2016 Transcript Vol. 1: 588). However, in Nunavut, home internet access is estimated to be at 59% (Review of basic telecommunications services, CRTC 2016 Transcript Vol. 2: 2017). That figure is an average for the territory's population; the numbers shift dramatically between Nunavummiut² communities, where larger towns such as the territory's capital, Iqaluit, have almost 80 per cent home internet access, whereas smaller communities can have home access as low as 36 per cent (Review of basic telecommunications services, CRTC 2016 Transcript Vol. 2: 2017). The differences in internet between Nunavut and Southern Canada are not confined to rates of internet access: internet in Nunavut is comparatively more expensive, operates on insufficient bandwidth, and is slower than internet in the South of the country – issues which will be discussed and probed in depth throughout this thesis.

¹ See Figure 1 for a map of Canada; Nunavut is the area in orange.

² "Nunavummiut" is a term that refers to the people of Nunavut.

These discrepancies, these differences in access were the starting points for this thesis: why was and is there such a difference in access between Nunavut and Southern Canada? What were the possibilities for changing the circumstances of access in Nunavut (were there any possibilities for change)? It should be noted that Nunavut is not the only region in Canada with low rates of internet access, with slow internet speeds and scarce bandwidth. These problems affect other Northern Canadian regions as well as rural areas in the Canadian South, and numerous First Nations communities (Review of basic telecommunications services, CRTC 2016 Transcript Vol. 1 and 2). A study of Nunavummiut internet would be fruitful therefore, not only for gaining insight into experiences within Nunavut but for understanding aspects of Canadian internet politics more broadly. And fitting internet into Nunavut's wider history presented possibilities for considering how internet politics are part of circuits of what Edward Soja has referred to as *spatial (in)justice* (2010), the ways that justice and injustice are the result of, and manifest in, socio-spatial processes.³ Could one discern patterns in the relationship between the Canadian federal government and the territory of Nunavut which had resulted in Nunavummiut having unequal access to internet resources when compared with Southern Canadians, an inequality that manifests geographically?

This thesis examines internet in Nunavut through a discursive lens. One of its main argument is that internet in the territory is implicated in narratives that construct Nunavummiut internet as having multiple faces and facets. By looking at how Nunavummiut articulate their experiences of using internet, at how they describe participating in the provision of internet (at public access sites), at the infrastructural and investment decision-making by the federal government, and the lobbying tactics of stake-holders trying to alter government policies, internet in the territory emerges as a multi-faceted, complex and a sometimes contradictory, concept. Internet in Nunavut, this thesis argues, is experienced

³ Please see *Chapter 2: A Review of the Literature* for a more fulsome discussion of this concept.

as a media technology, as a tool for communication, as political, as failing and frustrating, as online content, as physical infrastructure, and as a projection of hopes. These understandings and experiences of Nunavummiut internet render the concept of internet itself slippery, widening the parameters of internet, and suggest that internet, more than solely being an object or a set of practices, also acts as an imaginary for some of its Nunavummiut users.

A secondary argument made by this thesis is that discourses of Nunavummiut internet often suggest ways that it is understood as both frustration but also as potential, as offering what some of its users claim are limited possibilities in the present but imagined for what internet *could be*, for what it could do, if altered. In examining discourses of potential, the argument is made that the “fantasies” of an improved internet suggest less cyber-utopianism, but instead fit with Christian Sandvig’s concept of *parity*. In his work with indigenous peoples in California, Sandvig found that their appropriation of media infrastructures was not about some kind of countercultural practice or rebellion, but about a desire to have access to media tools on par with the average in California (2012).

The thesis’ chapters therefore explore aspects of some Nunavummiut internet discourses, examining various faces that Nunavummiut internet is given by its users, advocates, federal government officials, and producers. It also examines the ways in which internet in the territory is seen to disappoint and is experienced as potential. It explores different visions of what internet in Nunavut could be, how it could work, and how Northern internet stake-holders have sought, at the level of policy-making, to argue for their visions.

There were two main objectives in undertaking this study. The first was academic: to extend understandings of the kinds of meanings Nunavummiut internet has for its users, advocates and

producers and to also look at the particular problematics of internet in Nunavut, as articulated by interviewees, to see how internet is experienced, grumbled about, and imagined in Nunavut – to therefore, add to conceptualizations of internet. The second objective in elucidating these discourses of Nunavummiut internet was to probe the question of why and how Nunavummiut internet is experienced as unequal, and to take a stance on whether internet in the territory should be improved and invested in, by examining the rationales, provided by users and internet advocates, for why internet in Nunavut is worthy of more sustained and comprehensive federal government investment.

Research background and a Note on Interdisciplinarity

This research was conducted between 2012-2016, with evidence collected primarily through interviews and archival research. 61 interviews were conducted for this project, occurring via telephone, Skype, as well as face-to-face. Interviewees were located in Ottawa, Toronto, Montreal, Yellowknife, Winnipeg and 10 communities in Nunavut. The researcher also spent a short period within the city of Iqaluit, the capital of Nunavut, using a two-week period primarily as a basis for gaining some background, meeting informants, and as a means to collect evidence for this thesis' chapter on the Community Access Program (*Chapter 6: A Local Connection*). For most of the research period, the researcher was located in the United Kingdom.

In its literature and approach, the thesis' research has been influenced by media studies (particularly the “cultural turn” within media studies), policy studies and international relations, cultural geography, and to a more limited extent and primarily in terms of literature, cultural anthropology. Interdisciplinary research brings with it its share of drawbacks – one of them being some of the difficulties in evaluating such research, and as noted by Weiss and Wodak (2003), interdisciplinarity, particularly when it is the work of one scholar and not several scholars from different disciplines collaborating on the same project, can lead to work that is shallow, underdeveloped and amateur. Interdisciplinarity is often

motivated by a desire to examine an issue from a range of perspectives, but in choosing breadth, some may see a sacrifice of depth.

Despite this potential issue, this thesis hopes through its findings, to make an argument for the value of interdisciplinarity for explorations of internet, even those primarily focused on social, political and cultural questions. As Bruno Latour has argued, the study of the social is the study of tracing changing associations and connections. He states about his approach to the social:

...this...[definition of the social as the tracing of associations] seems absurd since it risks diluting sociology to mean any type of aggregate from chemical bonds to legal ties, from atomic forces to corporate bodies, from physiological to political assemblies. But this is precisely the point that this alternative branch of social theory wishes to make as all those heterogeneous elements might be assembled anew in some given state of affairs. Far from being a mind-boggling hypothesis, this is on the contrary the most common experience we have in encountering the puzzling face of the social (Latour 2005: 5-6).

Drawing on Latour, any study of the social is a study of an assemblage of “heterogenous elements”, and internet, one might argue, seems in particular to be constructed and associated with and through a wide range of elements, practices and ideas that cut across disciplines. In examining internet in Nunavut for example, particularly discourses around internet, the range of internet’s implication into life became apparent: it is a technical network, working on software and hardware, but just as its physical and technical infrastructure play roles in its constitution and in user experience, so does the geography of Nunavut, the political ideologies of federal governments, the spaces in which internet is used, and what internet is used for. Internet ties into both macro and micro political and social processes: in Nunavut, internet is partially the result of politics writ large, but it is also used regularly and often by people in Nunavut, for their communities, for political engagement and activism, for work, for socializing, for shopping, for pleasure.

An interdisciplinary approach is one that is focused on a specific issue, and not on specific methods (van Leeuwen 2005: 7), and media/cultural studies (the field of study and department in which this

thesis was mainly conceived, researched and written) tends towards interdisciplinarity. Lister and Wells describe cultural studies as “a compound field rather than a discrete discipline which appropriates and re-purposes elements of theoretical frameworks and methodologies from other disciplines, wherever they seem productive in pursuing its own enquiries” (Lister and Wells 2001: 63). Methodologically, in its use of interviews and archival research, this project does not stray too far from numerous social scientific research projects. The main interdisciplinary aspect of this project, then, has to do with the range of theories and literature that it draws upon. However, in keeping with the ideas of van Leeuwen, this thesis is based on the premise that drawing on a range of literatures contributes to facilitating discussions between experts in different disciplines whose work falls within a similar area, by helping to build more integrated conceptual frameworks (2005: 9). This is clearly an issue of importance for an area as vast, complicated and multi-faceted as internet. In sum, employing an interdisciplinary approach, drawing on a range of literatures, is particularly appropriate for a study of internet, which itself works beyond the confines of any one discipline.

While I have drawn on a range of literatures cutting across disciplines in researching internet in Nunavut, I make no claim to have examined *every* aspect of Nunavummiut internet. But there has been an attempt to consider it from a few angles, particularly to understand it as discursively connected to politics, community and as an imaginary, and as something that *could* accomplish a number of things that my interviewees hoped for.

The reader may have noticed the usage of the term “internet”, and not “the Internet” in these introductory pages. This is not a typo, though it is admittedly not in keeping with established grammatical/linguistic conventions of how to write about “the network of networks.” But because this thesis is making an argument about internet as a concept, decisions have been made about the way that internet is written about in this work. This decision is discussed briefly here, and at much greater length

in the next chapter, *Chapter 2: A Review of the Literature*, where the decision is situated within academic debates on the definition of internet. In short, the decision was made to refer to “internet” and not call it “the internet” or “the Internet.” One of this research’s central arguments is for the possibility of many different kinds of internet. Referring to it as “the internet”, though that is how it is often written in both the academic and the public spheres, works against this argument, because “the” suggests the singular and the universal. “Internet” is used throughout the thesis because the thesis is in favour of conceptualising internet(s) as multiple, myriad, and local. However, it should be noted that in instances where capitalization is the grammatical norm, such as for the first word of a sentence or when a word is part of a chapter or sub-heading title, the term “internet” is capitalized.

This question may arise: was a particular type of internet focused on during this project? When this research process began, the decision was made to examine broadband internet in particular, which in Nunavut at that time (2012) largely meant household internet access: internet-enabled phones were hardly ubiquitous in the territory during that period, with half the territories’ communities having no cellular service (Get Connected, NBDC, n.d.).

However, as this research progressed, internet-enabled mobile phones became more widespread in Nunavut, with the company SSi Micro bringing 4G to all communities in 2017 (Frizzell 2017). As a result, though this research began largely focused on fixed line broadband (broadband provided to a specific physical location through a network of cables, telephone lines or satellite), mobile phones, as they proliferated, were increasingly included in discussions of internet access in the territory. Internet issues related to mobile and fixed line broadband are fairly connected in Nunavut, the main difference being that Nunavummiut can, if they are living within a community that has the infrastructure for internet-enabled mobile devices, access internet through their devices in locations that offer wi-fi, and therefore avoid the costs of a computer and/or a household subscription to broadband. However, many

of the frustrations associated with fixed line broadband internet are shared with mobile internet, including slow speeds and unreliable connections, and Northern internet advocates, when arguing for further investment in internet infrastructure at the federal level, included both mobile and fixed line broadband in their discussions of internet.

Key Findings

This thesis' exploration of discourses of Nunavummiut internet, particularly discourses concerning its perceived effectiveness, issues and potential, has yielded a number of findings. These findings will be situated and more extensively discussed throughout the thesis, but are provided here as a means of introducing the thesis's contributions, and to help situate this research within wider academic debates.

In examining Nunavummiut internet and its discourses, this thesis has established that: 1)

Nunavummiut internet is variably understood as an infrastructure, as a tool for communication, as an obstacle, as political, as potential; 2) those seeking to alter internet in Nunavut at the level of federal politics have advanced their goals by collaborating in their usage of discourses at federal government hearings and in the writing of joint reports; 3) the obstacles and potential of internet are sometimes expressed in terms of or in reference to, spatial questions and issues as they relate to the geography of Nunavut and the "remoteness" of communities in the territory; 4) far from being considered merely a helpful add-on resource, internet in Nunavut is considered to be of great importance: its current issues are considered to hold the territory "back," and its improvement is considered vital by many Nunavummiut for their work, education, cultural engagements, socializing, and for the broader financial and economic well-being of the territory and its communities. The fourth finding, particularly as it relates to economic well-being, relates to some of the discourses found within studies on the digital divide and information communications technologies for development (ICT4D) (Heeks, Foster and Nugroho 2014; Lin, Kuo and Myers 2015; Pieterse 2010; Van Deursen and Van Dijk 2014; Ya'u

2004).

The findings and arguments made by this thesis fit this research within three debates. First, in examining internet politics, this research enters the debate on the role of governments in regard to internet: should internet be governed? What role can or should governments play in the implementation of internet in a region (particularly a region considered to be developing or economically at a disadvantage)? Secondly, the thesis, in examining an internet outside of Anglo-America, enters the conversation about the extent to which popular understandings of internet are primarily understandings of a Western, Anglicized internet. Related to these questions about the cultural nature of internet, in examining internet discourses, this thesis debates what internet is and how it can be defined. In the pages that follow, further introduction to these debates is provided; more substantial discussions of the debates can be found within *Chapter 2: The Review of the Literature*.

The First Debate: Internet and Governance

There has been much valuable academic research conducted on Nunavummiut and Inuit internet. For example, Alexander, Adamson, Daborn, Houston and Tootoo have examined issues of Inuit cultural and linguistic preservation and education online (2009). Scobie and Rodgers have explored how Nunavummiut communities have used social media as political protest tools (2013; 2015). McCauley and Walton have researched the development of online education (specifically for the Nunavut Master of Education) (2011) while Wakegijig, Osborne, Statham and Issaluk have looked at how internet (and social media) have raised awareness concerning food security in Nunavut (2013). Neil Blair Christensen (2003) has examined the correspondences between online and offline Inuit cultural practices in his book, *Inuit Cyberspace*. Wachowich and Scobie (2014) have looked at Inuit storytelling on YouTube, Hot has researched Inuit usages of the social network Bebo (2010) and Laugrand and Luna-Penna have studied Isuma.TV, the online Inuit cultural hub (2013).

Part of what this thesis contributes to the literature on Nunavummiut internet is its inclusion of internet politics and policy, an approach that finds its academic lineage in the work of Lorna Roth (2005), who has written about indigenous media politics, and Frank Tester, who has examined policy in his studies of Inuit experiences during the 20th century (2006; 2011; Tester and Kulchyski 1994; 2008). As well, this research has a place in discussions about internet governance, taking on the matter of who controls internet, and who is responsible for it. In Nunavut, as this thesis will show, the federal government currently plays an essential role in the provision and funding of internet; and outside of Nunavut, internet governance scholars continue to field and explore questions pertaining to the role of governments in regards to internet (Franklin 2013; Goldsmith and Wu 2008; Lessig 2006).

There are scholars who maintain that behaviour in cyberspace should not be subject to regulation anywhere (Johnson and Post 1996); others who claim that national governments are where the internet governance buck should ultimately stop (Goldsmith and Wu 2008); and others (Franklin 2013) who believe that a global and globalizing technology such as internet, benefits from a politics of activism and engagement to ensure that internet does not become a tool of the repressive and dominating. Some of the latter are in favour of involving a supranational organization such as the United Nations to ensure the maintenance of human rights in regards to internet experiences, which operates above and beyond national borders.

In focusing on the question of provision, this thesis takes the position that particularly in places where corporations have little reason to intervene, it continues to be the responsibility of national governments (in this case, the Canadian federal government) to ensure access. The inability of corporations thus far, to close the gaps between Nunavummiut internet access and access in Southern Canada ties some of the discourses of Nunavut's internet politics to the macroanalytical concerns of

ICT4D (which links access to ICTs with the potential for socioeconomic development), as well as with discourses of the digital divide (which are focused on unequal access to digital technologies or the gaps in access to ICTs). Pieterse provides a short summary of ICT4D and digital divide policy, stating:

“Since digital capitalism doesn’t go where profit margins are low such as rural areas and developing countries, the rationale of bridging the digital divide is that development intervention can make up for market imperfections and jumpstart connectivity...” (2005: 12).

The concerns of advocates and lobbyists who have campaigned at the federal level for an improved internet in Nunavut have employed elements and ideas from these paradigms. In presenting their concerns to the federal government about the kind of internet governance and investment they believe Nunavut needs, these advocates are making a case about who has responsibility for internet in Nunavut. Users, when discussing Nunavummiut internet’s potential, as shall be discussed in *Chapter 4: “So frustrating,”* sometimes draw on the arguments of ICT4D to argue for closing the digital divide between Southern and Northern Canada. As a result, this thesis is implicated within debates about internet governance, and ideas drawn from ICT4D and the digital divide, all of which will be explored in greater depth within the next chapter, *Chapter 2: A Review of the Literature*.

Second Debate: Internet Outside of Anglo-America

In detailing some of the specificities of Nunavummiut internet, particularly its discourses, this work contributes to the growing field of media research that examines internet outside of Anglo-American contexts. It joins texts such as Miller and Slater’s *The Internet: An Ethnographic Approach* (2000), Tai’s *The Internet in China: Cyberspace and Civil Society* (2006), Abdulla’s *The Internet in the Arab World: Egypt and Beyond* (2007), among others. These works focus on untangling the ways that internets need to be understood within the specific cultural, political and economic contexts in which they are embedded.

These texts and this thesis can be seen as responses to the problems Gerard Goggin and Mark McLelland articulated in the 2009 book *Internationalizing Internet Studies: Beyond Anglophone Paradigms*. Writing about the work of Mizuko Ito, Goggin and McLelland state why conducting research outside of Anglo-America is important to the entire discipline: “Ito points out that technologies are not universal; rather, it is necessary to attend to “the heterogeneous co-constitution of technology across a transnational stage” (2009: 4). Internet, according to Goggin and McLelland, is varied, and if academics theorize internet, they must be aware of its multiple types.

Susanna Paasonen, in her chapter “What Cyberspace: Traveling Concepts in Internet Research” (2009), takes up the argument about the cultural nature of internet and points out that as an example, “cyberspace,” a term used with frequency by both academics and journalists as a synonym for internet, has a specific etymology and meaning. Cyberspace is often associated with the science-fiction book *Neuromancer* by William Gibson (1984), and this meaning suggests living in a kind of virtual reality separate from the physical. Paasonen reflects in particular on how the term cyberspace has not been particularly useful or relevant for contemporary Finnish scholarship on internet. In doing so, she argues that many commonly used Anglophone terms associated with internet such as the information highway and cyberspace, are metaphors that refer not only to particular discourses about how internet works in specific circumstances, but also help to *construct* internet. She writes:

Scholars participate in giving shape to the Internet through their ways of describing the medium. Terms and metaphors are not neutral words used instrumentally or interchangeably for describing existing phenomena—and this is even less the case when these words are used as research concepts. Concepts “distort, unfix, and inflect” the object they represent while also providing a common language for discussions concerning it (Bal, *Travelling Concepts*, 22) (2009: 20).

Drawing on these ideas then, by contributing to understandings of an internet outside Anglo-America, research on Nunavummiut internet participates in making internet research less Euro-centric, and provides evidence for arguments that position internet as culturally-specific. In particular, this thesis

examines the ways advocacy and narratives of Nunavummiut internet usage showcase, to employ Roth's term, *cultural persistence* (2005).⁴ Moreover this thesis' evidence suggests the possibility of "Nunavummiut internet" which has its specific politics, infrastructure, history, discourses and context. Nunavummiut internet is therefore not simply a modified version of "the internet"; rather, as shall be discussed below, it complicates ideas of there being one "standard" internet.

Third Debate: Against Entrenched Conceptualisations of Internet

This work is involved in the debates mentioned above, adding empirical evidence and details about the ways that government is connected to internet, and contributing to the growing research on internet outside of Anglo-America. But this research is not about supplying what might be called "cultural colour" (interesting details about how internet works in an "exoticized" locale) to academic studies of internet. The project complicates how internet is conceptualised, and argues for wider, more numerous understandings of internet.

To draw on a few examples that will further discussed in this thesis: Nunavummiut internet is currently a satellite-provided medium, reliant on government funding and investment, often characterized by its users as being unreliable, expensive, and slow. Its bandwidth is a scarce resource, forcing users to be conservative in their usage, in how much they download, in how many videos they choose to watch on YouTube or other video-based sites. Some of its public spaces of access are used to facilitate cultural and community projects linked to naming and mapping. These examples do not simply point towards characteristics that this internet does not share with internet in certain other contexts. These examples serve to counter prevailing ideas of what "the internet" is presumed to be and how it is presumed to act.

There is sometimes the assumption, particularly in the public sphere but also among academics when discussing internet, that it is a technology that is "always on", increasingly video-oriented, a place

⁴ For a more in-depth discussion of cultural persistence, please see the next chapter, *Chapter 2: A Review of the Literature*.

where people go to watch films and television. When discussing Nunavummiut internet at conferences and with those who have read some chapters of this thesis, instead of understanding Nunavummiut internet as a different internet from one they might be acquainted with, a common reaction from my audience is to say: “well, this internet in Nunavut seems less than successful, so why study it?”

In response, this thesis argues that all media, all technologies, have their perceived frustrations or moments of frustrating users. Brian Larkin, a media anthropologist who has given significant attention to the symbolic practices associated with infrastructural failures and film in Nigeria, has stated:

... breakdowns, the innovations they demand in compensation, and the informal social practices that grow up around them mean that...the presence, functioning, and repair of infrastructure in Nigeria is not invisible or taken for granted but an inescapable feature of everyday life (2008: 246).

Larkin’s point about experiences in Nigeria is relevant for breakdowns, perceived failures and struggles with technology and infrastructure everywhere: they are often a part of “everyday life”, a point echoed by scholars working within science and technology studies, such as Leese (who has examined failure as a dynamic process in reference to body scanners (2015)), and Braun (who in a symposium devoted to the study of failures in 1992, argued that examining failures allowed for “more realistic” histories of technologies (1992: 213-230)). If we refrained from studying media and technology that was perceived as difficult or often frustrating, what exactly would be studied? What media works perfectly, fitting ideals of how it “should” work?

Related to this point, the ways in which the Nunavummiut internet is less than successful (in which it does not always do what people want it to do) are part of what constitutes it, and part of how its users understand it. The gap between the ideals associated with a particular medium and how it operates and is operated upon in practice, is an area that can help researchers grasp some of the emotions and hopes that users might have for a particular platform, an idea that could be seen as analogous to pre/de-
scription, a term used within the Science and Technology Studies (STS) vernacular (Akrich and Latour

1992). Akrich and Latour's definition of "de-description" is "...written analysis of a setting...the text of what the various actors in the setting are doing to one another" (1992: 259). However, before an analyst can make a de-description, there needs to be "some extraordinary event – a crisis" (1992: 260), such as a "failure that reveals the inner working of the setup" (1992: 260).

In keeping with the ideas of Akrich and Latour, as well as Larkin, the thesis take the position that in theorizing internet, the researcher should ask not only what does a medium do, but also, how does it malfunction, how does it frustrate, disappoint, try one's patience on a day to day basis? How are practices related to specific media in specific circumstances sometimes about compensating for what media cannot do, or what media cannot do well or perfectly (in the eyes of its users)? These kinds of questions are integral to opening up understandings of media and gaining insight into the kinds of symbolic and affective meanings that media can become imbued with, and per Akrich and Latour, to gain a deeper understanding of the "inner working of the setup."

This research is not about advocating some kind of radical alterity or boundedness of internets. Certain elements of various internets are relatable and equivalent. The Nunavummiut internet is connected to other internets by infrastructure, technology, history and in multiple other ways. What this research underlines is the value of wider, more flexible, and multiple conceptualisations of internet, for thinking more broadly and meaningfully about how a media technology such as internet can both function but also malfunction, and how people and cultures experience these functional/non-functional media in their specific contexts.

This thesis therefore tries to bring the discussion of internet back to the importance of recursively questioning what media are. In asking: what are some discourses that encompass internet in Nunavut, the thesis is, in a sense, not only asking about Nunavut – it is also asking: what do we say internet is? In

doing so, the research point towards the slipperiness of “internet” and to a framework where the nature of internet is not theoretically presupposed, but consistently engaged with as a subject for conceptualisation and re-conceptualisation.

Overview of the Chapters

To close out this introduction, brief synopses of the chapters that follow are included. The thesis is structured so that it has two parts. Part one provides the theoretical and methodological background and concerns of this project. The second part presents the evidence gathered, focusing first on discourses of internet from users, exploring the kinds of meanings users associate with Nunavummiut internet and then moves on to focus on how these discourses manifest at the level of federal politics, and the ways in which Nunavummiut internet is constructed at this level both as an object of politics and as a physical infrastructure. The third empirical chapter examines, through the example of public access sites, discourses of internet frustration and potential, looking at how spaces of internet access can provide insight into experiences and conceptualizations of Nunavummiut internet, and also examines policy stances towards internet taken by both the federal government and the territorial government.

Part I: Project Background

The second chapter, *Chapter 2: A Review of the Literature*, situates the project within academic debates relevant to its interests. Key ideas explored include the differing ways that internet has been conceptualized, including the terms used for and associated with internet, such as cyberspace and the information highway. As well, literature related to the cultural situated-ness of media is examined, as is an investigation of internet as a physical, politicized object and practice. The thesis also offers an exploration of ideas drawn from Inuit Studies on media and internet, and concepts from cultural geography that examine the relevance of space (and definitions of space) to issues of inequality. Coverage is also given to debates around internet governance, exploring questions of responsibilities for internet, internet as a right, internet as a tool for development, and views articulated by scholars

working within ICT4D and the digital divide paradigms.

Chapter 3: On Methodology provides a detailed introduction to the research design of the project: the practical rationale for the methodologies chosen (primarily interviews and archival research), how these were implemented and how data was collected and analyzed. Included in this chapter are reflections on epistemological questions relevant to interview research, and ethical choices and questions faced by the researcher, particularly as they pertain to the circumstances of conducting research with an indigenous population, such as, in this case, conducting interviews with Inuit informants in Nunavut.

Part Two: Empirical Research

The fourth chapter, *Chapter 4: “So frustrating”: Nunavummiut Internet User Discourses of Frustration, Planning and Potential*, provides an introduction to discourses of Nunavummiut internet, presenting empirical data collected from interviews with Nunavummiut internet users. Attention is paid to how these internet users articulate experiences of technologies, their stories of being frustrated by it, and of the utility they see internet providing in the present, and how informants believe an improved internet could affect their lives, work and cultural practices.

The fifth chapter, *Chapter 5: Fractious Collaborations: Nunavummiut Internet Advocacy*, provides some background on Nunavut’s history and examines some of the specific events of how internet was made available in the territory. Attention is paid to federal government policies concerning the North during the Cold War, activism by Inuit groups in the 1970s and 1980s, and the establishment of Nunavut in 1999. The chapter also examines current policy discussions around Nunavummiut internet, exploring how Nunavummiut internet stakeholders, including non-governmental organizations, the Government of Nunavut and telecommunications corporations, have collaborated to lobby federal government to change its approach to internet investment. The focus is particularly on the tactics of

writing joint reports and testifying at Canadian Radio-Television and Telecommunications Commission (CRTC) hearings. In particular, the collaborative use of discourses by activists and telecommunications companies, both in the writing of joint reports and in testimonies at the CRTC hearings is examined, as a means of showcasing different visions of internet in the territory, and how these organizations and activists hope to make these visions a reality. The historical narratives presented in this chapter provide some context for discourses of frustration presented in the earlier chapter, *Chapter 4: “So frustrating.”* And in their advocacy for investment in Northern internet, Northern internet stakeholders articulate discourses of potential, that focus on the potential for Nunavummiut internet in and of itself, to be improved.

The sixth chapter, *Chapter 6: A Local Connection: CAP and Nunavummiut Internet*, brings together the interests of the fourth and fifth chapters of this thesis (*Chapter 4: “So frustrating”* and *Chapter 5: Fractious Collaborations*), dealing with both the politics of internet, and the articulated experiences of Nunavummiut users and administrators. The territory’s Community Access Program (CAP) sites, spaces that provide free internet access to the public, are examined, both for how they are experienced by their administrators, but also for how the sites have been seen to facilitate specific communities’ projects (and in particular, the ways in which digital technologies are seen as helpful tools for communication, for job hunting, and for cultural initiatives). CAP sites are key nodes in the network of Nunavummiut internet provision, as internet access has not been ubiquitous among the territory’s residents, and the ostensible rationale behind CAP sites is the idea that, as was stated during the World Summit on the Information Society in 2003 (which occurred under the banner of the United Nations): “Everyone, everywhere should have the opportunity to participate and no one should be excluded from the benefits the Information Society offers” (Klang and Murray 2005: 1).

Finally, the conclusion of the thesis, *Chapter 7: Concluding Thoughts*, articulates the contributions

made by this work, summarizing the debates, findings and arguments presented in this thesis, and explores areas for further research. These contributions include adding to understandings of Nunavummiut internet and contributing to evidence on why Nunavummiut internet should be an object of sustained government funding and planning, in consultation with Northern internet stakeholders and Nunavummiut communities.

Part 1: Project Background

Chapter 2: A Review of the Literature

Introduction

In this chapter, this research project is situated within the literature and debates in which it is engaged, and the project's key concepts, such as *appropriation towards parity*, *cultural persistence*, *spatial (in)justice* and *potential*, are elucidated. Due to the interdisciplinary nature of the project, ideas drawn from a range of disciplines including STS, cultural anthropology, Inuit studies, media studies, and sociology are discussed.

The chapter begins by exploring the debate about what internet is. It discusses how internet has been defined, explores different ways internet has been referred to, and examines the debate over whether internet is an information and communications technology (ICT) or medium. The chapter then moves to presenting literature concerned with discourse and practice theory. Various views of what constitutes discourse are summarized, and an examination of how practice theory (which includes discourse within its purview) has been applied to researching and conceptualizing technologies and media, including internet, is presented.

This literature review also considers debates concerning the relationship between internet and space, examining discussions about internet's physicality, its relation to physical space, and internet as an object within space, employing in these discussions the work of theorists such as Innis, McLuhan and Latour. Discussions about internet and policy are also explored, with a focus on deliberations concerning internet governance, the digital divide, and ICT4D.

The chapter also discusses cultural approaches to internet and media, and taking into account the project's focus on Nunavut and Inuit communities, it examines prior research on Inuit internet usage. The work of researchers who have examined the relationship between Canadian public policy and Inuit

communities, such as Tester and Kulchyski, and Roth, is also presented.

Finally, the chapter investigates frustration, fantasy and potential as they relate to media, examining cyber-utopianism and critiques of cyber-utopianism, media archaeologists' discussions of media fantasies, probing the idea of potential through Sandvig's concept of *appropriation towards parity*, and presenting the argument for taking failures into consideration when conceptualizing technology.

What is internet?

As this project sets out to examine internet in Nunavut, clarifying debates around the conceptualization of internet is a central task of this literature review. Internet's penetration into numerous areas of life and its involvement in a complex range of technical, social, political, economic and cultural practices have meant that even its name – how it is referred to – can be a contentious topic.

The debate over what internet should be called perhaps reflects the disputed definition of what internet is.⁵ A technical definition of *an* internet is somewhat agreed upon as “a set of inter-connected Internet Protocol networks”⁶ (The Linux Information Project 2005). “*The* Internet” refers to a specific internet, the large, global internet (the global set of inter-connected Internet Protocol networks). “The Internet” is therefore a prominent internet, one that was primarily developed in the latter half of the 20th century, which came to have greater cultural significance (particularly in the West) in the 1990s, during which time it became a consumer technology (Blum 2012; Lessig 2006: 2). In being referred to as “the Internet”, internet has followed the naming trajectories of other media and communication platforms, such as the phonograph, which in its early history was referred to as a proper noun, “The Phonograph” (Schwartz 2002). Referring to internet as the Internet (with a capital ‘I’), turning internet into a proper

⁵ This discussion of how internet is named, largely refers to naming conventions within the English-speaking world. As the work of Goggin and McLelland (2009) and Paasonen (2009) cited in *Chapter 1: Introduction* describes, the terms for internet tend to vary by culture and language. The circumstances of naming internet within the Anglophone world have taken centre stage in this review because English names and terms tend to dominate, when internet is referred to in Nunavut.

⁶ Internet Protocols refer to the rules that structure how information is conveyed through the network: how information is broken down into packets, and travels from its source to its destination (Galloway 2004: 6).

noun (Internet) involves the explicit recognition that when one is speaking about “the Internet,” one is referring to *a particular* network; one is naming a specific internet among others.

However, arguments have been put forward, particularly over the past 15 years, that as internet usage has become more common, “the Internet” should become “the internet”: it should be referred to not as a proper noun, but as a generic one. The trend towards de-capitalization of the “I” seems, to this point, to have taken a strong hold within the UK (Martin 2016), but increasingly in the United States, media outlets such as the *New York Times* (Bromwich 2016), *Wired* (Long 2004), and *CNN* (Herring 2015) have turned to the lowercase spelling of the “internet.”

The argument over capitalization is rooted in an argument of what internet (or The Internet, or the internet) is, and to an extent, who it belongs to. Turow has argued that de-capitalization reflects both the banality of internet, as well as its belonging to all of its users. Turow, speaking to the *New York Times* in 2002, said on the justification for de-capitalization that

"I think what it [the de-capitalization of “the Internet”] means is it's part of the everyday universe," he said. Capitalization irked him because, he said, it seemed to imply that reaching into the vast, interconnected ether was a brand-name experience. "The capitalization of things seems to place an inordinate, almost private emphasis on something," he said, turning it into a Kleenex or a Frigidaire. "The Internet, at least philosophically, should not be owned by anyone," he said, calling it "part of the neural universe of life." But, he said, dropping the big I would send a deeper message to the world: The revolution is over, and the Net won. It's part of everyone's life, and as common as air and water (neither of which starts with a capital) (Turow in Schwartz 2002).

Moving from “the Internet” to “the internet” therefore, has been seen as a response to the ubiquity of internet, to its everyday-ness: “the Internet” has become for some users, banal, everywhere, an object or thing such as water, air or television, that is common enough to be referred to as a common noun – “the internet”, surpassing all other internets in cultural significance that the disambiguation provided by the capital “I” is no longer seen (by some) as necessary.

However, there is room for debate concerning Turow's justification for switching the big "I" to a little "i." His justification seems to rest mostly on experiences of internet within the Western world, and in particular, on experiences in urban areas. As shall be discussed below, access to internet is not necessarily banal for everyone: in some areas, particularly in the Global South and in rural, remote and economically marginalized areas within the West, access to internet is not necessarily ubiquitous, and this difference in access calls into question the second part of Turow's justification – that internet "should not be owned by anyone." Turow is clear in stating that he is speaking in ideal terms, but it is still worth noting the gap between this idea and what evidence concerning ownership of internet has uncovered: evidence concerning the physical infrastructure of internet (to be cited below, when discussing internet's relationship to space) speaks to its physical ownership (Blum 2012; Franklin 2013: 41) by major corporations and governments, and as scholars have demonstrated, the online spaces of internet are increasingly dominated by corporate interests (Curran, Fenton and Freedman 2012; Pieterse 2005; Ya'u 2004), and experts, such as software engineers and developers (Galloway 2004; Lessig 2006). This is not to say that this thesis is in favour of continued capitalization; it is simply to underline that to a certain extent, the move from a capital I to a small i on the basis of the ubiquity of internet and its shared ownership represents an idealized and not fully realized vision of internet. The "internet", as discussed by Turow, represents a hope of what internet will be, not what it is (for some of the world's population) in the present.

In this project, as discussed in the previous chapter, the term "internet" is preferred and utilized over The Internet or even the internet. Internet (without "the") has a longer history than "the Internet" or "the internet": it is a shortening of the word "internetwork", which was simply any system of connected networks, and the usage of internet (without the "the") dates back to at least 1974 (Martin 2016).

There are arguments for retaining the "the," primarily that the article "the" indicates the specific global

network of connected networks that is being referred to when most users are speaking of or using internet. The decision to drop the “the” when referring to internet in this project, stemmed from several issues. Firstly, “the internet,” as stated above, refers to the global network of networks, thus presenting a definition that focuses on the global-ness of this internet, as well as its technical aspects (the global interconnections). The argument in this project is not that “the internet” is incorrect. Instead, the argument is that there are different ways to engage with internet, ways that can differ for a variety of reasons, relating to variances in access, cultural engagements with technologies, differences in legalities around internet in one’s particular local circumstances, among a multitude of other possible influences and factors. Christian Sandvig has also been critical of using “*The internet/Internet*”, because its emphasis on the global network, its name, suggests a universal, singular technology, which can mask the glocal-ness (the ways that individuals and communities meet, experience, interpret and re-interpret and contribute to phenomena described as globalizing through ideas, prisms and practices that are often local: see Wellman, Boase, and Chen 2002) of internet and internet experiences (Sandvig 2012: 191).

Despite “the internet” referring to a specific network of networks, internet, as this project will explore within its research chapters, is not experienced in the same way everywhere – it is not even the same within the same country, or region, and often within the same cities. The technical accuracy of “the internet” does not correspond to the lived and cultural experiences of this technology, which results in users in different circumstances seemingly encountering technologies and infrastructures that feel different from internet in other places, when going (or trying to go) online. The choice to use the term “internet” was to underline the *different* kinds of internet experiences that a user might experience, depending on their location, on their financial situation, and on the specific circumstances of their lives. This project therefore, is about a particular kind of internet experience, experiences of Nunavummiut

internet, how its users understand it as specific in its manner of working, as not being the same as internet found in urban areas of Canada. In short, dropping the “the” is about this project’s particular prioritizing of user experiences, and underlining the differences of internet, despite some of the universalities associated with its technical aspects.

Removing the article “the” is also helpful for this project because it allows internet to escape from being a noun, from being an object. Untying internet from “the” gives the concept the freedom to be an adjective, a verb, to be as banal, and/or amorphous, and/or flexible, as internet is in the lives of many of its users. Removing the “the” in short, allows this project the freedom to re-encounter internet as a concept, to revisit it and assess the ways the term’s boundaries might be tugged at, dissolved and/or re-formed.

Cyberspace, the Information Superhighway, the World Wide Web

Internet is often used synonymously with other terms such as cyberspace or the information superhighway, or it is confused with a term such as the World Wide Web. To begin with clarifying the World Wide Web – the Web consists of hyperlinked content, first developed by Tim Berners-Lee, and it operates on internet; it is the space that many users frequent when using internet. Any content that is accessed through a “www” address is content located on the World Wide Web. But while the Web can be clearly distinguished from internet (as content on internet), cyberspace is perhaps a bit more complicated to disentangle, because cyberspace is not a technical term, but as some scholars have suggested, it instead connotes a particular *experience* of internet content.

Lessig, for example, argues that cyberspace is the sense that a user can have while online of entering a different world, a different territory, of not only being in the space where their physical body is located.

He writes:

...“cyberspace” is something more. Though built on top of the Internet, cyberspace is a richer

experience. Cyberspace is something you get pulled “into”; the Internet is that medium through which your e-mail is delivered and web pages get published. It’s what you use to order books on Amazon or to check the times for local movies at Fandango. Google is on the Internet, as are Microsoft “help pages” (2006: 9).

According to Farmer, Morningstar and Crockford, cyberspace⁷ suggests the social aspects of the network of networks, while internet connotes its technical basis (1994). An oft-cited origin of the term “cyberspace” is accorded to Gibson, whose novel *The Neuromancer*, called cyberspace a consensual hallucination (1984), while John Perry Barlow is referenced as having tied Gibson’s term with internet (1996) in his “A Declaration of the Independence of Cyberspace.” Cyberspace, in short, is a term for internet that focuses on the social affordances of internet, and the ways in which being online can constitute a kind of being that might feel at times, transformative and transporting to the extent that one might feel separate or separated from one’s physical location.

Another popular term for internet, the information superhighway, has multiple claimed sources of origin, the most famous of which is former Vice President of the United States, Al Gore, who is said to have spoken the term in the 1970s (Cox 1989). Whereas cyberspace is used to suggest the social aspects of internet, and the experience being online might provide of being in a different space (to be in the space of cyber, versus or with one’s physical location), the information superhighway focuses on internet’s affordances for transferring, sending and receiving information between different physical locations at high speeds (Virilio 2006: 39). However, the information superhighway can also refer to more than internet, and is sometimes used to mean all digital technologies, including digital television and mobile phones (Hale and Scanlon 1999: 100). The information superhighway also differs from cyberspace in that it refers, through the “highway” aspect of the term, to the physical infrastructure of internet, to the cables and fibre optic networks through which information passes en route to its

⁷ In *Chapter 1: Introduction*, Paasonen’s commentary on cyberspace was briefly discussed; she had found within her own research on Finland that cyberspace was not a term that Finnish users found applicable or relevant to their online experiences.

receivers (Gore 1994).

This thesis uses the term “internet” and not cyberspace or the information superhighway in its discussion of Nunavummiut internet. These terms certainly have their value and point to particular discourses of internet: that is a place of sociality, that it might be a means for escaping some confines of one’s physical locations, and that it is a channel for sending information quickly over vast distances. However, while each term is helpful for highlighting certain aspects and discourses of internet, this thesis is focused on examining internet from several angles, from both the ways in which it is experienced by users while online (cyberspace), and for its infrastructure and politics (information superhighway), and the ways that these two aspects of Nunavummiut internet are discursively linked. As a result, the term internet has been used, as an umbrella term, for the multiple possibilities, experience and affordances that the network of networks might have for its users, producers, policy-makers and advocates in Nunavut.

ICT and/or Medium?

This research has been pursued within a Media and Communications department, and the question may arise: can or should internet be categorized as a medium, or as an ICT, and what are the differences between these two categories?

Internet is often grouped under the ICT banner, particularly in policy discussions. The website TechTerms provides this definition of ICT: “ICT refers to technologies that provide access to information⁸ through telecommunications. It is similar to Information Technology (IT), but focuses primarily on communication technologies. This includes the Internet, wireless networks, cell phones, and other communication mediums” (2010).

⁸ Information in relation to ICT refers to data that has been processed, often by a computer and therefore given some kind of meaning or significance.

A discussion of what media is might threaten to take this literature review off-track: a short, perhaps overly simplistic definition would be that media act as channels of communication within societies, nation-states and/or increasingly, on a global scale. Internet has been classified as a medium, in that it facilitates channels of communication from one-to-many (such as through websites and online newspapers) and in this way, acts in a manner similar to other mass media, such as television and radio (Morris and Ogan 1996), as well as acting as a space where older mass media are migrating, as a host for television and radio (Jenkins 2006: 10). In this latter usage, as a host for television and radio, internet seems to fulfil McLuhan's observation that newer media often draw upon and model the content of older, more established media (Bolter and Grusin 1999; McLuhan 1964: 31). As a platform for a host of mass media (podcasts, videos, television shows, online newspapers), as a space for one-to-one communication (email, direct and private messages on social media sites such as Facebook or Twitter), as well as by facilitating the development of hybrid media that are mass but still allow for responses from its audiences, internet can arguably be placed under the rubric of "media."

The argument could be made that understanding internet as an ICT corresponds to some degree with understanding it as an information superhighway, while approaching internet as a medium perhaps links it more closely with the concept of cyberspace. This thesis would argue that internet should be understood as both an ICT and a medium, that understanding internet as an ICT highlights its physical and technical infrastructures (the ways in which information travels through internet and the idea of internet as a technology), while describing internet as a medium puts the focus on online content, on the platforms on internet, such as websites, social media, video channels, online newspapers, blogs, vlogs, and a host of other media that internet, as an ICT, can host.

So What is Internet?

The possible terms that can be employed for internet have been discussed and debated above, and this

discussion has given some insight into how internet has been conceptualized. Technically, it is any network that employs IP protocols; but specifically, it is the global network of IP networks that became a consumer technology in the latter part of the 20th century. Turow's discussion about who internet belongs to (he claimed that it should ideally belong to everyone), suggests some of the political dimensions of internet. The discussion of cyberspace versus internet provides a further definition: the understanding of internet as a place, as a space for content, some of which is fairly practical and sometimes banal (the sending of email, for checking movie times), and other content which draws its users in, making them feel they might be at two places at once (in their physical place, while also being online), such as in world-building, interactive games. The information superhighway highlights internet's ability to send information over large distances. And increasingly, internet, as a medium, is seen as a space for social media: for interactive, multi-media communication. In short, internet is an information communications technology and medium; it is the result of technical processes of engineering and coding, the combining of hardware and software, and it runs on algorithms; it is implicated in politics; it is a space for handling practical matters such as paying bills and sending email and finding a plumber, but it is also a space for pleasure, entertainment, to watch television, to listen to podcasts, to find new music; it is a place where one can lose track of time and a tool that allows a person to work from home.

Castells summarizes some of these aspects of internet in *The Rise of the Network Society* (2010), illustrating that internet is seen as altering conditions of labour (labourers can increasingly work from home, allowing for flexible hours – which in turn can also lead to working all the time), arguing that it alters how users entertain themselves, how they communicate, who they can communicate with on a daily basis, the workings of the economy and the flow of money and goods, creating what Castells has termed “a space of flows” (2010: 440-448) which allows for real-time synchronous communication and

interaction across distances, changing, Castell claims, the very form and shape of the social, so that the basic unit of society becomes the network.

These are just some of the ways that internet has been understood and conceptualized, and the point here is that putting too strict a boundary around internet can be challenging, because internet can be and mean (and do) different, multiple things for its various users, producers, regulators, and analysts. Therefore, instead of settling on a specific definition of internet, this project hopes to point to the amorphousness of internet, to its many possibilities, to the different meanings and emotions it can take on for those who engage with it, to its technical, social, cultural, political, affective aspects and say: instead of defining internet and risk missing its possibilities, let us instead take internet, hold it up to various lights, and see what can be found. In particular, this project is interested in trying to find out how Nunavummiut define internet, in taking up internet in Nunavut, and seeing how some of its users, producers and advocates articulate, how they speak of internet, and in this way, help construct Nunavummiut internet.

Discourses and Practice Theory

One of this project's central arguments is that Nunavummiut internet is simultaneously implicated in discourses of frustration and potential. The term "discourse" is used extensively within the academic sphere, with its meaning perhaps more often assumed than explicated. As such, Baumann writes in regards to discourse: "...the term has assumed a bewildering vagueness as it has spread from the humanities to the social sciences" (1996: 10). In the following section, a review of some approaches to "discourse" will be provided, along with this thesis' particular usage and employment of the concept.

On Discourse

Discourse analysis within the social sciences is frequently linked with Foucault. In his archaeologies and later, genealogies of knowledge, Foucault was interested in discerning the rules and patterns that

gave specific ideas and utterances the power to be deemed “truth” and knowledge. He defined discourse as:

...a group of statements in so far as they belong to the same discursive formation... [Discourse] is made up of a limited number of statements for which a group of conditions of existence can be defined... (1972: 117).

Foucault understands discourses and knowledge as products of power, employing his understanding of power as dispersive, as operating relationally, and as productive, so that the ways that people speak, write, and articulate ideas and experiences are themselves produced by and the result of processes of power (1972). Examining discourses from a Foucauldian perspective, therefore, usually means probing discourses in an attempt to understand how they help maintain and entrench specific relations of power.

Certain elements of Foucauldian analysis can be found within most schools of discourse analysis, particularly the connection between discourses and power. However, whereas Foucault believed that for each historical period, there were specific discourses that were held to be true, later scholars have tended to argue that in any society and culture, there are multiple, often contradictory and conflictual discourses that represent varying groups and individuals vying to establish particular ideas and interpretations as “the truth” or as knowledge (Jorgensen and Phillips 2002: 13).

It would be impossible to provide any kind of full summary of all the schools of discourse analysis here, to do justice to the range of ideas and techniques that range from linguistic analyses that focus on the minutiae of syntax (Thompson 1999); anthropological techniques that focus on the pragmatics of conversation and every day speech events (Lutz and Abu-Lughod 1990); algorithmic techniques that break down speech to its morphemes in order to discern patterns (Marcu 2000); post-structuralist views of discourses that understand all social reality as discursive and are concerned with discerning discourses operating and circulating at an abstract, high-level within a society (Laclau and Mouffe 1985); critical discourse analysis which breaks with post-structuralism in seeing discourse as

constructing the social to a certain extent, but also as being constructed, the result of other social factors, and which focuses on how the study of discourse can be used to alter relations of power within a society (Fairclough and Wodak 1997); and discursive psychology which uses everyday conversation to examine how discourses help to constitute selves and group identities (Potter and Wetherall 1987). These are just a few of the prominent schools of discourse analysis.

This project does not adhere strictly to any one school of thought on discourse, but attempts, instead, to draw upon a range of the ideas mentioned above. It shares with all these approaches the idea that discourses are, to some extent, constitutive: that in articulating interpretations of realities, discourses help to form those realities for their articulators. However, with critical discourse analysis, this project holds that discourses interact with specific material conditions, that social reality and power are both discursive and material, and therefore discourses are both constitutive and constituted, productive and produced. To be clear, there is no attempt here to argue that post-structuralists think there is only discourse and that specific physical realities are non-existent – post-structuralists argue that discourse is material, and conditions and institutions often considered solely material, are implicated in discourse (Jorgensen and Phillips 2002: 19). However, the value that critical discourse analysis's perspective adds, is in *the explicitness* of its recognition of material conditions. This calls for the researcher to discern the links between those conditions and the relevant discourses, so that the focus can move between what is said/written, and the socioeconomic and political realities associated with the concentration of resources of power within dominant institutions and spheres within a particular society.

In keeping with the interests of discursive psychology and practices of anthropology, this thesis primarily seeks to discern discourses and patterns of articulations, through analyses of conversations, examining the pragmatics of language, in its objective of coming to an understanding of how

Nunavummiut internet has been discursively constructed. This utilization of discourses (which have been helpfully defined as “...particular way of talking about and understanding the world (or an aspect of the world)” (Jorgesen and Phillips 2002: 1)), draws upon practice theory, particularly as it has been applied to media and technologies.

Practice Theory and Technologies-in-Practice

Some media theorists (including John Postill (2010) and Nick Couldry (2010)), employing anthropology and practice theory, have been drawn towards understanding media as cultural practice. In his 2010 chapter “Media as Practice,” Couldry presents the idea that media needs to be approached and understood as practices, or “possibilities of action” (2010: 50) – that what people in a specific area or locale are doing with media, what they are saying about it, what they avoid doing with it, are the kind of evidence necessary for theorizing media (2010: 41). The need for this widened gaze comes, Couldry argues, from what anthropologist Liz Bird has referred to as the increasingly “amorphous nature of media experience” (Bird in Couldry 2010: 40). Taking this into account, Couldry writes:

In formulating a new paradigm of media research, we should open our lens even wider to take in the whole range of practices in which media consumption and media-related talk is embedded...(Couldry 2010: 40).

This idea of practices is significant because it breaks open the possibilities for theorizing media such as internet, allowing the researcher to examine a medium not only through its form and its content.

Inclusive in this definition of practices are what users say about media (“what types of things do people say in relation to media?” (Couldry 2010: 41)) – or to put it differently, discourses of media usage.

The practice perspective is emphasized in the work of Wanda Orlikowski, an information systems researcher associated with the idea of *technology-in-practice* (2000). Orlikowski, like many practice theorists, is influenced by Giddens’ structuration theory⁹ and asserts that technologies should be

⁹ Giddens’ structuration theory (1984) examines how social systems are reproduced. Giddens argues that social structures and human agency must be understood in relation to each other and that individuals (agents, to use his term) are continuously creating social structures through recursive action.

understood as the continuously recreated and enacted outcomes of users' recursive technological practices. The rules, properties and circumscriptions we attribute to devices are rooted, Orlikowski argues, in our usage and interactions, not in the device itself. She writes:

When humans interact regularly with a technology, they engage with (some or all of) the material and symbol properties of the technology. Through such repeated interaction, certain of the technology's properties become implicated in an ongoing process of structuration. The resulting recurrent social practice produces and reproduces a particular structure of technology use... Thus, structures of technology use are constituted recursively as humans regularly interact with certain properties of a technology and thus shape the set of rules and resources that serve to shape their interaction (2000: 407).

Orlikowski's ideas point to the ways that devices, platforms and media such as internet, even in their materialities, are shaped by cultural practices, which include discourses. Her work is also useful for understanding how technologies, even when their material properties are similar across the globe, can differ because of the ways that people repeatedly use and understand them. This project, in drawing largely upon interviews with Nunavummiut internet users, is interested in the ways that the usage and conceptualization of a technology or medium, and the ways this usage is spoken of, can help to construct what the medium comes to represent and mean for its users.

Countering Orlikowski and the largely constructivist view of technology, are scholars such as Hutchby (2001) and Feenberg (2001) who assert that such a view diminishes the technical nature of technology, and some of the politics of technology. Andrew Feenberg argues that the practices of users should not totally supersede the technical in conceptualizing technology, because users have less power than those designing devices. He writes:

Constructivism...has introduced difference into the question of technology...But ordinary people do not resemble the efficiency oriented system planners who pepper the pages of technology critique...For the most part they merely carry out the plans of others or inhabit technologically constructed spaces and environments...(2001: x).

This perspective, which recognizes the ways technology is formed by not only its usage but also its technical aspects, and the ways in which these technical aspects can create particular affordances

(opportunities and limitations) for users (Hutchby 2001), raises questions of power concerning technology, which practice (and structuration) theorists, in their focus on usage and agents, might be seen to be glossing over.

As stated above, practice theory has been criticized for not addressing questions of power – that in its focus on everyday usage and practice, politics and power can be sidelined. This is a particularly relevant question for this project to address, because it examines discourses, and as outlined above, any discursive analysis that links itself with the Foucauldian tradition, has its roots in an analysis of power. While Foucauldian accounts that have curtailed approaches to agency are problematic for their dismissal of micro-processes of resistance, the opposite perspective, one that solely examines agency without sufficiently grounding analyses of that agency within the borders laid down by the powerful, risks diminishing the complexities of usage and the ways that communities and individuals resist, or to use Roth's term (to be examined below, see Roth 2005: 16), how they *persist*, within relations of power and domination.

If the analytical focus within this thesis is on the articulations of Nunavummiut internet users, it is not because there has been no attention paid to power. *Chapter 5: Fractious Collaborations* examines the actions and behaviours of the Canadian federal government, in regards to Nunavummiut internet. In examining the government's role and decision-making, its pattern of under-planning and under-investing in Northern internet, this thesis lays out some of the context in which user discourses can be understood, not simply as descriptions of experiences, but as micro-processes of persistence in response to a government and to institutions of power, that are not always attentive. The discourses of usage examined in this thesis are related to power in the sense of being, in some cases, implicit or indirect responses or critiques of the misused power of the federal government, and therefore, to some extent, are partially constituted by power.

In this way, discourses of usage, instead of acting as mere celebrations of how users constitute Nunavummiut internet, can be understood as responses to processes of power, allowing one to trace the links between these discourses and actions of more powerful institutions, thereby creating a path between the political concerns of Feenberg and the cultural concerns of Couldry, Postill and Orlikowski. Saying that internet can be understood as constituted by the practices of users (including user discourses) in the vein of Orlikowski, Couldry and Postill, is not to say that users approach objects and technologies with complete freedom. Rather it is a question of saying that whatever the goals of the more powerful players (governments, corporate interests, technical experts), users are not entirely “captured” in their actions and decision-making in regards to technologies and media (see de Certeau 1984 on how the less powerful “make do”), and can leave their imprint on these technologies. These discourses and practices occur in light of, within the boundaries of, and in relation to power.

Internet and Physical Space

If this project hesitates to offer a strict definition of internet which states unequivocally what internet is and can be, it nonetheless intends to focus instead on certain aspects of internet that it argues are pertinent to the experiences of Nunavummiut internet narrated by the project's interviewees. One such aspect is the physicality of internet – the infrastructural aspects of internet.

In *Tubes: A Journey to the Centre of the Internet* (2012), Andrew Blum sets out to “find internet”, to discover what it is, where it is, how it works, who made it, and who is profiting from it. In delving into internet history, Blum goes over well-known background: that internet was created by the privileged and the powerful, a combination of the Western scientific community, American and European governments, the American military, and corporate sponsorship (2012: 36-62). Internet has its foundations in power and is, as Blum discovers when he attempts to locate internet, still, in a physical sense, in the hands of some of the richest corporations in the world and largely based in centers of

economic and political power: New York, London, Tokyo, Frankfurt. What Blum also makes clear throughout *Tubes*, is that internet is constructed from specific materials and it functions through connections between physical things across spaces: between computers, through undersea cables, via satellite dishes broadcasting signals into space, through phone lines, through cables laid into the ground. And the physical aspects of internet are owned – by major corporations such as Tata and SEACOM (2012: 160-173).

Thinking about internet's physicality opens up this discussion into two related threads: internet as an object in space and broader ideas about internet and its theoretical connections to space. For now, the latter thread will be discussed: how internet's relationship to space has been theorized.

Internet's Relationship to Space

Cyberspace, a common synonym for internet, as discussed above, points to the ways, particularly within Western cultures, that internet has been understood as a separate area, a different place. There have been efforts to write about the ways that virtual space is different from physical space, allowing people to adopt different personas in the virtual realm (Dibbell 1993; Donath 1999). As internet usage has become more pervasive, scholarship has continued to examine this phenomenon, while also considering the overlap between online and offline spaces, and the ways that online experiences and interactions are connected to and reflective of offline realities (Christensen (2003) on Inuit web pages reflecting long-standing cultural interests and practices; Miller and Slater (2000) on how internet usage in Trinidad reflects off-line interests and communication practices).

There is a history within the Western philosophical tradition of conceptualizing space and time as the two central axes upon which realities are based (Lefebvre 1991). But cultural geographers and theorists of space have argued that space often takes a backseat to time, that geography is made peripheral to history when social processes and practices are considered (Lefebvre 1991; Harvey 1989; Soja 1989,

2000, 2010). Lefebvre noted the tendency to take for granted space as a concept, for scholars to write of various kinds of spaces (cultural space, the space of politics, public space) without presenting any systematic theory, as if space was obvious and natural. He argued that spaces are produced, are social constructions, and are embedded within (unequal) social relations:

Is it conceivable that the exercise of hegemony might leave space untouched? Could space be nothing more than the passive locus of social relations, the milieu in which their combination takes on body, or the aggregate of the procedures employed in their removal? The answer must be no... (*Social space is a (social) product* (1991: 11, 26).

The idea of space as socially constructed, as well as participating in the production of socialities was further developed by Massey, who foregrounded the notion that space, far from being static, was instead dynamic, ever-changing and fluid (1994). Soja, similarly, presents an understanding of space which insists that space is not only the “physical quality of the material world” but is instead a “complex social product...collectively created” (2010: 17-18). He states:

When space is referred to here, it is more than just a physical quality of the material world or an essential philosophical attribute having absolute, relative, or relational dimensions...the spatiality of human life must be interpreted and understood as fundamentally, from the start, a complex social product, a collectively created and purposeful configuration and socialization of space that defines our contextual habitat, the human and humanized geography in which we all live out our lives. Such socialized lived space, constructed out of physical and natural spatial forms, mentally and materially intertwines with our socialized lived times to create our biographies and geo-histories (2010: 17-18).

In understanding space as a social product produced collectively, Soja is also interested in examining the ways that being or living in a particular space can have either positive or negative impacts on individuals and communities (2010: 19). Drawing on an idea articulated by Lefebvre, *the right to the city* (which examined the ways urbanism had created unequal living conditions within cities, and urged the marginalized to take action to rectify or fight against the ways their spatialities were being socially produced (1968)) , Soja puts forward the concept of *spatial (in)justice*, developing a framework for considering the ways that space and inequality are related. He writes:

Spatial (in)justice is situated and contextualized in three overlapping and interactive levels of

geographical resolution. The first results from the external creation of unjust geographies through boundary making and the political organization of space. At a more local scale, unjust geographies arise endogenously or internally from the distributional inequalities created through discriminatory decision making by individuals, firms, and institutions. The third scale of geographical resolution is more regional, or mesogeographical, and is rooted in the injustices associated with geographically uneven development and what is described as the globalization of injustice (2010: 8-9).

In Soja's conception of "justice", he writes that it is more than fairness, but is

...imbued with a symbolic force that works more effectively across cleavages of class, race, and gender to foster a collective political consciousness, create a sense of solidarity based on shared experience, and focus attention on the most challenging problems in the contemporary world in ways that span large segments of the political spectrum (2010: 21).

If this project is interested in internet in Nunavut, the question of what internet is, which has been discussed above, is not the only concept it needs to clarify. In setting out to examine discourses and definitions of Nunavummiut internet, this project is making a claim about space: that space means *something*, that situating internet within a particular space (Nunavut) can tell us something about internet, and in studying discourses of Nunavummiut internet, there is perhaps something to be learned about Nunavut. As Soja notes in the quote above: "unjust geographies arise... from the distributional inequalities created through discriminatory decision making by individuals, firms, and institutions." As shall be discussed in greater depth in *Chapter 5: Fractious Collaborations*, the history of the creation of Nunavut, the history of relationships between the Canadian government located in Ottawa and Inuit peoples living in Northern Canada, have been fraught with injustice, which has led to a number of inequalities experienced by Nunavummiut. Inequalities in the Canadian landscape are heavily spatialized, with patterns of investment and involvement by governments rendering some regions wealthier than others. In studying internet in Nunavut, this project is arguing that internet can impact physical space, which is a fluid, changing, constructed concept; it is also arguing that the space itself, the space of Nunavut and the ways in which that space has been constructed, impacts how internet has been made to work within the territory.

Innis on Space and Communications Infrastructure

Canadian scholars in particular have been interested in the multi-faceted relationship between space and communications infrastructures. Harold Innis' work on empire, and the ways communications technologies contribute to the construction of margins and centres within a landscape, have enduring relevance for analyses of the dynamic relation between media and communications platforms, and the construction of space.

Innis put forward the idea of “a bias of communication” – that different communications technologies tend to privilege either space or time (Innis 1951: 33). As an example, Innis considered the postal service a communications technology that has a space bias – it can send messages across wide geographical expanses. But the kinds of materials that this sort of medium uses are not the kind that endure for years on end; they are necessarily lightweight and flimsy. In centuries past, Innis argued, a large stone-engraved monument was a way to convey a message that might stand the test of time but the monument and its message would be more difficult to convey to across distances, and therefore, had a time bias (1951: 35-37).

Innis looked at “ancient” empires to stress that the characteristics of different empires could be tied to the types of communications an empire used to relay messages to its subjects. The ancient Sumerians, according to Innis, had a more controlled, centralized empire and they relied on stone tablets to communicate (1951: 37), whereas the Egyptians, whose use of papyrus enabled them to communicate easily over large areas, had a more dispersed empire (1951: 35). As Innis saw it, time-biased communications result in more centralized government; space-biased communications are linked to a more decentralized practice of politics over a more expansive area.

Innis' work is often criticized and dismissed as resting on causal links, and for its focus on effects (the

consequences of communication platforms, which can be difficult to nail down with any precision).

One could argue, for example, that instead of a communication platform resulting in specific forms of empire, as Innis suggests, that governments might actively employ specific platforms to construct particular kinds of empires. In *North of Empire* (2009), Jody Berland, however, argues that Innis' ideas as a communications theorist and political economist continue to be relevant for studies of media and communication, as they touch on ways that communications technologies and infrastructures are crucial to "spatial configurations of power" (2009: 66).

Communications, per Berland, play a role in how power relations are constructed within spaces. This is an idea that returns us to the area of cultural geography, discussed earlier, that productions of space always involve social relations and processes of power. Innis argued, for example, that the making of Canada into a colony, which involved building of transport and communication links in specific places, and the culling of resources mainly for the colonial power's benefit, demonstrated how communications and transport infrastructure play a part in marking and making particular spaces into either centres or margins.¹⁰ Berland writes of Innis:

He conceives topographical space as produced space, and shows that the production of space and the production of social life form one process. Space is neither an uninhabited frontier nor a backdrop for history, but the very subject and matter of historical change. Communications technologies mediate the social relations of a particular society by setting the limits and boundaries within which power and knowledge operate (2009: 69).

McLuhan, Latour and Internet as an Object in Space

Marshall McLuhan, another Canadian communications scholar, also examined the links between how media forms affect and impact society, most famously in *Understanding Media* (1964). In that work, McLuhan argued that the characteristics of a medium, its form, are more fundamental to how it alters and interacts with a society, than the content of the medium, that what was "on" the medium mattered

¹⁰ To clarify Innis' understanding of the margin: marginal areas are spaces created to be dependent on a centre, while providing the centre with resources (Berland 2009).

less in terms of the medium's effects, than how the medium worked and transmitted its content. There is a link here with Innis: Innis too was interested in how the form of a medium (whether it had a space or time bias) could affect how an empire communicated with itself, and how these in turn impacted how that empire was governed. Innis, in conjunction with Soja and Lefebvre, provides a framework for understanding how communications media might participate in processes of spatial (in)justice, in constituting and being constituted by inequalities that are experienced and manifest spatially, whereas McLuhan's focus on form when applied to internet helps ensure that the form of internet, how internet works, its infrastructure and object-ness, is considered as important in its conceptualizations as its content.

McLuhan's interest in the forms of media and communications platforms return focus to the idea of internet as an object in space: internet as hardware, as comprised of parts. Galloway has pointed out that the form of internet, the way that it is constructed and coded, affects what can be done online (2004); Lessig has argued, the code which underlies the content and transmission of information on internet can be seen as the ultimate regulator, determining what kind of information can be put online, and how it will get to its intended destinations (2006). Internet's form, therefore, creates some of the conditions for its content. While perhaps disagreeing with McLuhan in his relegation of content to secondary status in the study of media, the argument that media forms are worthy of consideration for understanding the relationships a particular medium has with its users, remains useful.

Considerations of internet's form and its technical aspects have become noted as a vital area of study for communications and media scholars. Latour in his elucidation of Actor-Network Theory (ANT), advocates an approach to the study of the social often categorized as post-human, stating that attention should be paid to the ways that non-human objects (*actants*) can influence and impact the ways that humans make choices, act, and interact with objects and processes (2005: 75-76). Law provides this

summary of ANT: “Actor-network theory is a disparate family of material-semiotic tools, sensibilities, and methods of analysis that treat everything in the social and natural worlds as a continuously generated effect of the webs of relations within which they are located” (2008: 141).

In the sphere of internet, key non-human actants include internet’s codes and algorithms, the software upon which these codes and algorithms run, and the hardware which runs the software. The devices themselves and how they work (and work on their users), the infrastructure which supports the running of the devices, their technical properties – these are pivotal to understanding questions about internet and digital technologies, including questions with a more cultural or political bent. This thesis focuses in particular on the physical infrastructure of internet as part of the wider assemblage of human and non-human actors and actants that comprise Nunavummiut internet (see *Chapter 5: Fractious Collaborations* for debates about internet infrastructure in Nunavut), and takes from ANT the view that when one is studying internet, one is not studying simply one “thing” but a complex, a network of actors and actants. As well, as cited in *Chapter 1: Introduction*, Akrich and Latour’s idea of de-scription, that analysis of a network can only occur after a major event, such as a failure has occurred, because it is only then that one can glimpse the inner workings of a network (1992), has been employed to justify examining Nunavummiut internet in the first place; the failures and frustrations of Nunavummiut internet help reveal its inner workings, making it open for analysis.

Internet and Politics

The literature review has until this point, been considering literature and debates tied to the question of what internet is and now switches gears to considering specific socioeconomic and political discussions connected to internet. The section begins by considering another key debate in which this project engages: the debate on internet governance. Later in this section, the discourse of the digital divide is probed, as well as the ways that internet has been linked with international development.

As mentioned above during the discussion of capitalization of the term “internet” and Feenberg’s discussion of technical objects as at least partially (and in some ways crucially) constructed by power, internet and technology more generally, do not live outside politics. From its beginning, as a tool for American government and the military, internet has been political and politicized. More recently, the use of social media for protest has led to internet being seen as a tool that the weak can use to confront the powerful, but beyond the political opinions that might be expressed by users online, internet is also implicated in politics through discussions concerning its investment, infrastructure and regulation.

While techno-utopians might have rejoiced at a technology that they once saw as destined to foster horizontal, more democratic relationships and societies (Barlow 1996), as brands, corporations and governments become more involved in the construction and patrolling of internet experiences, the question of power and politics in relation to internet has garnered attention. Deibert writes about the need for political engagements with internet, to ensure that it does not become solely a tool for the powerful, and to clarify the “rights, roles and responsibilities” for those who partake in internet:

We need more than ever to encourage, rather than stifle, the free flow of knowledge and the exchange of ideas, and cyberspace has provided us with that opportunity... The solutions to problems vexing cyberspace are going to require approaches at multiple levels – local, national, and global. The articulation of an alternative vision of security, one that doesn’t throw the baby out with the bath water, one that protects and preserves cyberspace as a dynamic and open and yet secure ecosystem, is urgently required. At the heart of this vision must be the elaboration of the proper rights, roles, and responsibilities for all who share in and sustain cyberspace, and it means ensuring that those rights, roles, and responsibilities are implemented and enforced. It is important to recall that cyberspace belongs to everybody and nobody in particular, that it is what we make of it, and that it requires constant tending (2013: 225).

If internet needs to be pulled into legal frameworks and practices (and the encroachment of governments and corporations suggest that this is happening, whether we like it or not), the question becomes: who should regulate and govern internet? This question highlights not only the power dynamics of internet, but also raises questions about what internet is, and the changing role of the

nation-state. Does the form of internet (which McLuhan argues, should be the focus of our attention) – its global network, its transmission of information across borders – necessitate a kind of regulation that is also global and crosses borders?

Goldsmith and Wu have argued that internet, while changing a great deal, has not changed everything, and the nation-state still has an important role to play in internet governance. In the view of Goldsmith and Wu, internet should be territorialized, given boundaries and subject to the specific laws and regulations of nation-states (2006). Lessig, on the other hand, is more circumspect when it comes to the question of regulation. While acknowledging that in practical terms, internet will be regulated, Lessig maintains that the less regulation, the better. Returning to ideas around how internet's form is pivotal to its interactions and influence, Lessig argues that internet should be regulated at the level of code, deep within its infrastructure, as code is the starting and ultimate level of internet governance, and other approaches can only deal with internet's effects, but not directly address its issues and problems (2006).

Franklin counters the arguments of Goldsmith and Wu by pointing out that state power, while perhaps the easily imaginable solution is hardly a natural solution. State power is itself a construct (2009: 225), and she argues that non-state actors, such as supranational organizations, including the United Nations (which includes investments in communications technology as one of their sustainable development goals (Sustainable Development Goals, United Nations, n.d.)) are starting to play a greater role in governance and regulation (2013). Franklin herself participated in the drafting of the 2010 *Charter of Human Rights and Principles for the Internet*, which brought together stake-holders from a range of professions, countries and social, economic and cultural backgrounds, with different ideas about internet, but all with the idea that internet was important, and that with internet, should come the notion of rights (2013: 138-180). People everywhere, according to this declaration, have a right to internet access and a right to online information and participation (Internet Rights & Principles Coalition 2014:

6).

Franklin also puts forward the idea that internet is not only a technology, but an idea (2009). She writes: “The Internet and its constitutive practices and structures need to be construed not just as-a-technology but also as-an-idea, integral to the “scriptural economies” that reproduce the “modern mythical practice” (Certeau in Franklin 2007a: 315)” (2009: 224). In keeping with the notion of internet as an idea, Franklin is able to discuss internet in the subjunctive, asking: what *could* internet be (2013: 6)?

Franklin’s point that supranational organizations need to be factored into conversations about internet governance, comes from both a critique of state power, drawing upon Fraser’s argument that publics are now not only confined within national boundaries (Franklin 2013: 45-46; Fraser 2005), and her observations that the very form of internet, its global-ness, renders it necessary to consider regulation and governance beyond state lines (2013: 18, 139).

While the question of internet governance might, at first, seem distanced from this project of examining internet in Nunavut, subsequent chapters demonstrate the ways in which internet in Nunavut is politicized. Specifically, Nunavummiut have had to lobby federal government extensively for improved access to internet. As such, the question of who controls internet takes on a slightly different aspect in Nunavut, where the pressing question becomes: who controls *access* to internet? At the moment, federal government remains a pivotal player in the provision and therefore, control of internet access in Nunavut. This is a state of affairs that is in keeping with the ideas of Goldsmith and Wu, save for the fact that the federal government’s control is not considered ideal (for Nunavummiut or the federal government of Canada, as shall be discussed during *Chapter 5: Fractious Collaborations*), but a matter of pragmatics.

However, with major corporations such as Google and Facebook discussing ways of connecting those who currently have a more problematic internet connection (Project Loon n.d.; Associated Press 2017), there is a possibility in the future that the players in Nunavummiut internet politics may become more varied, involving both the nation-state, the current telecommunications companies operating in the territory, Nunavummiut, as well as transnational corporations. And to take up Franklin's argument, supra-national organizations have already played a role in Nunavummiut internet politics, particularly in setting standards that can be used as points of comparison by Nunavummiut internet advocates, circumstances to be explored in subsequent chapters of this thesis.

The Digital Divide and ICT4D

Evidently, unequal access to internet is not only an issue within the Canadian context. Indeed, the divide that separates the digital-haves from the digital-have-nots is common enough to warrant its own term and discourse, that of "the digital divide."

The discourse of the digital divide has its origins in analysis of Western cities, and the gaps in technological access between certain areas versus others, often coinciding with differences in income, race and socioeconomic class. However, the term is also used for exploring the global divide between countries that have high rates of high-speed internet penetration (generally, countries within the global North) versus those that do not (states within the global South) (Pick and Sarkar 2015: viii). The literature on the digital divide is vast, and heavily implicated in discussions concerning development, but underlying the orientation of digital divide research (for the most part) is the understanding that differences in access to digital technologies both represent an inequality and foster other (economic, social, cultural) inequalities. Kim Andreasson, writing about the digital divide, states that there are three stages of the digital divide:

...digital divides can be classified into three simple stages: (1) access, in providing ICTs in the first

instance; (2) usage, in the ability and interest to use them; and (3) useful usage, from which users can reap the potential benefits of the information society (2015: xxiii).

Strongly associated with the digital divide is the growth of ICT4D (ICTs for development), the concept that ICTs can be used for development purposes. Increasingly, NGOs, corporations and governments are investing in ICTs in the global South and in economically marginalized areas within the North, employing the rhetoric of “bridging the digital divide” to argue that these investments are creating and developing socioeconomic opportunities.

Jan Neveen Pieterse was an early critic of both the usage of the digital divide discourse and the growing prominence of ICT4D within development and academic circles. In the article, “Digital Capitalism and Development: The Unbearable Lightness of ICT4D” (2005), Pieterse criticizes the concept of the digital divide, stating that it represents inequalities between areas as technical issues to be solved with technical solutions, when these are instead socioeconomic problems:

The digital divide is a deeply misleading discourse: the divide is not digital but socioeconomic but representing the divide in technical terms suggests technical solutions. It suggests digital solutions to digital problems (Warschauer 2003: 298; Cullen 2001). With the digital divide comes reasoning that correlates connectivity with development performance – ‘Area A is rich, integrated into market relationships, and has a lot of telephones; area B is poorer, less integrated into market relationships, and has fewer telephones: therefore a telephone rollout will make B richer and more integrated (Wade 2002: 450). The next step is to equate connectivity and economic development and to view ICT as key to bridging the rich-poor gap and national “e-readiness” as a cornerstone of capacity building...the discourse surrounding ICT has thus become part of developmental discourse itself’ (Thompson 2004: 105) (Pieterse 2005: 12).

Pieterse argues against the strain of cyber-utopianism which he suggests is employed by digital divide theorists and ICT4D activists, arguing instead for a “disembedding” of technology from capital, stating that the correlation between technology and capital, which he refers to as digital capitalism (the investment in technology by corporations and Western governments in Southern countries), can run the risk of creating new dependencies. He argues instead that “Southern high-tech alternatives” is a preferred route – the development of technologies within Southern contexts that suit the needs and

wealth of the regions (2005: 26).

Ya'u's work is in a similar vein and explores the complex relationship between capitalism and internet in the article "The New Imperialism & Africa in the Global Electronic Village" (2004). In looking broadly at circumstances in Africa and the effects of attempts to bridge the digital divide, Ya'u argues that the proliferation of ICTs often masks another dynamic: the ways in which ICTs further implicate peoples and countries into neo-liberal, capitalist frameworks (2004: 18). Ya'u writes about the consequences of introducing ICTs to Africa and their use by multi-national corporations, stating:

ICTs allow the flow of information and market intelligence at incredible speed and very low cost... ICTs also link up the new manufacturing outposts of transnational corporations in the South to their markets in the North (2004: 13).

Some of Pieterse and Ya'u's reasoning can be related to the work of Mattelart (1996; 2000), who through histories of communication, has argued that the networking of the world (connecting the world through networks of cables, railway lines and other infrastructure, so that information and goods can travel more swiftly between places, resulting in what has become known as globalization), while to some extent, has facilitated equality and democracy, has also resulted in "expansionism." These networks of information for the purposes of "free speech" often become channels for the expansion of trade and corporate interests, and "the idea of freedom is reduced to freedom of enterprise and trade" (1996: 307). As the paradigms of ICT4D and the digital divide, their critiques and Mattelart's theories suggest, communication technologies such as ICTs are part of a longer history of being construed as both tools for the freedom of those who have access to them, and as tools of the powerful, who use communication technologies to more tightly ensnare consumers into neo-liberal, capitalist networks.

While the reasoning of Mattelart and critics of ICT4D and the digital divide is cogent for underlining the overly simplistic links drawn between socioeconomic development and access to ICTs, as well as the neo-liberal ideologies that ICTs can become implicated within and help proliferate, this project

argues that there is still value in both the digital divide discourse and ICT4D activism, particularly when analyzing circumstances in Nunavut.

The digital divide discourse makes clear that the gap between the circumstances of Nunavummiut internet access and the Southern Canadian context, do not render Nunavut exotic, but part of a greater story of global gaps and differences in access. In focusing on articulations and discourses around Nunavummiut internet, this project is not asserting the absolute difference between internet in Nunavut and other places in the world: on the contrary, research on internet in the Caribbean (Miller and Slater 2000), the Pacific Islands (Franklin 2004), Ghana (Fuchs and Horak 2008), Australia (Dugdale, Daly, Papandrea and Maley 2005) among much other research, shows some striking similarities between the issues experienced by Nunavummiut internet users and internet users in many other parts of the globe. In examining internet discourses in Nunavut, therefore, this project is examining a specific experience of technological inequality, grounding it in Nunavummiut discourses and the specific relationships between the Canadian government and Nunavummiut, examining the circumstances of how this gap became manifested in this territory, how users experience and articulate their sense of the divide, and how lobbyists and activists are actively campaigning to close the gap.

The Cultural Nature of Media and Internet

This literature review has thus far examined two of the key debates in which this project is implicated, the first being: “what is internet”, which led to discussions about the different ways that internet has been conceptualized, and the second being: “who controls access to internet,” which focused on macro-political questions around internet governance, politics, including development politics and discourses, as they relate to Nunavummiut internet. Another of the key debates in which this project is situated has to do with the cultural nature of internet.

Media anthropologists have led the way in examining the cultural aspects of media (Abu-Lughod 2004; Ginsburg 2002; Michaels 1993) – the ways in which a medium is altered and influenced by the cultural practices of those who use it. Brian Larkin’s *Signal and Noise: Media, Infrastructure and Urban Culture in Nigeria* (2008), notably makes a case for the cultural specificity of media. In this work, he examines Nigerian media history with a particular focus on film. Larkin concludes by discussing one of the main questions with which he began his project. He writes:

One of the starting points of my research and this book was to pose the question of what a theory of media would look like if it began from Nigeria rather than Europe or the United States. Would it look the same? Would the conditions of existence for media – the political exterior of colonial and postcolonial rule, the religious and cultural discursive traditions in contest with that rule, the physical being of technology, the modes of sociability and imaginative life that media provoke – make media theory look different? ...do these different conditions interrupt assumptions about media, highlighting processes played down in analyses that ground media in the social and political configurations of the United States or Europe? (2008: 253)

Larkin’s hope was that his approach would “give greater analytic prominence to problematics common to media but often underexamined” (2008: 253) – that is, to analyze aspects of media experience that might be significant in a particular cultural setting but can escape the researcher who analyzes media using Western circumstances and norms as “the global standard.” Larkin notes, there are black outs in both Lagos and New York, but that similarity can hide the dissimilarity of how those black outs are lived and what they signify. In Nigeria, black outs are a common, almost expected event, greeted with a sigh and a walk to one’s back-up generator, a frequent reminder to citizens of ongoing governmental incompetence. In New York City, a black out is met with generalized panic in the face of the unexpected (2008: 242-243).

The result of Larkin’s theoretical orientation is a study that prioritizes the importance of infrastructure, that examines how media can function as sites of political contestation (2008); or to put it differently, the result is a study that builds a theory of cinema in Nigeria from the ground up. In consciously trying to avoid taking media experiences in North America and Europe as the standard, *Signal and Noise* is

able to recognize differences in media experiences in varying locations.

If Larkin's work demonstrates the need for theories of media that are culturally-situated, other scholars have developed work that focuses in particular, on the cultural nature of internet (Abdulla 2007; Franklin 2004; Tai 2006). Daniel Miller and Don Slater, in *The Internet: An Ethnographic Approach* (2000), explore the history and culture of internet in Trinidad, for example, looking particularly at how cultural attitudes and practices in that country do not abruptly change between the online and offline environment, but instead demonstrate how frequently the online world acts as an extension of the offline. For example, Miller and Slater found that most of their informants communicated online with people they had met and knew offline (2000: 57-58). Miller and Slater also found that the way that these online communications were conducted, the expressions used in chat rooms, the kinds of social interactions that were sought, were overwhelmingly reflective of social practices that could be observed at any street corner, and argue that the online practices were most easily understood within the context of offline ones (2000: 8).

Cultural Approaches to Media And Practice Theory

Ideas on the cultural aspects of internet and media are clearly related to discussions of practice theory (discussed earlier in this chapter) and its concerns in relation to debates about what internet is. In so far as the arguments made by practice theorists on usage capture the points made by those advocating the cultural nature of media, there is a benefit to be had in linking these debates.

However, while there are overlaps in the ideas of those advocating for a practice approach to the study of internet and those who argue for the cultural nature of media usage, there are differences which this thesis argues, warrant having these two debates kept separate. One of those differences is that a central focus of those arguing for media as cultural, has to do with building links between wider cultural practice and media usage, which while of interest to media practice theorists, is not its essential

concern. Another difference has to do with disciplines: those working within the practice theory debate, are usually firmly within media studies, while scholars studying the cultural nature of media are often to be found within media anthropology circles. As a consequence, the methodologies of research concerned with these debates are often quite different (making comparisons between research from these different threads a challenge), and the literatures are not frequently in dialogue with each other. The separation of these debates in this literature review then, parallels the conditions of the debates within academia, but the interdisciplinary nature of this project dictates the necessity to include and reference both.

Furthermore, media and technology practice theorists and those advancing the idea of media as cultural, are often arguing against different ideas. Media and technology practice theorists are often interested in arguing for attention to be paid to everyday usage, against those who would primarily conceptualize technologies on the basis of their production or technical attributes. Media anthropologists who research the cultural nature of media, on the other hand, are often trying to upend the tendencies within academia to make Anglo-American circumstances the norm, and to ignore the ways that indigenous peoples and peoples living in the global South engage with, produce and consume media, and inscribe that media with their own cultural logic (Larkin 2008: 253).

This project, while not anthropological, has focused its attention on an area and communities that have frequently been the subject of anthropological study, and therefore, much of the previous research and literature on Inuit media falls under the rubric of media anthropology, and explores the ways that Inuit communities have made media their own, and found ways to use it for cultural purposes and priorities. This research project, particularly in *Chapter 6: A Local Connection*, touches on some of the ways that Nunavummiut internet has been used to facilitate cultural practices and interests, but the attention paid here to debates about the cultural nature of media and internet is motivated by the desire to provide

scholarly context and background that any research on Nunavummiut communities would be usually fit into.

The decision to explicitly situate this thesis' research in relation to debates about the cultural nature of internet, largely rests on the basis that internets outside the "Western" world, used by people who are not Caucasian, who are not English-speaking, are worthy of increased attention from academics. In situating this thesis within arguments that make the claim for the cultural nature of internets, this thesis is arguing, with media anthropologists, that it is the job of media academics to be attentive to the variety of different cultural internets and their practices, when approaching, defining and theorizing internet. One would be hard-pressed to find numerous media academics who explicitly say that they believe that internets operating outside the Western world are not worthy of consideration, or that they think differing cultural practices have no bearing on the ways in which a media might be used and constructed. These claims would be easy to disprove; but what those arguing for wider attention to be paid to media outside the West are arguing against is usually silence, or only a few words paid to the media practices of those living outside the West, and media theories that often seem to draw almost exclusively on research done on Western circumstances.

As stated above, the very idea of Nunavummiut internet ties this research to previous research on media (and more specifically internet) within Inuit communities, in which anthropologists have made the case that Inuit make media their own and use it for cultural purposes (see for example Ginsburg on how indigenous film-makers are involved in acts of memory (2002: 40), and Wachowich on the production of Inuit media texts as means of facilitating subsistence practices (2006)). The following section explores some of the relevant literature from Inuit Studies, on internet and Inuit media history.

Inuit Studies and Inuit Media Studies

Nunavut is a territory inhabited primarily by Inuit, and Inuit communities have had particular histories

with media, with using media for cultural preservation purposes, for political and social purposes, for pleasure, and with lobbying federal government for access to media resources. In the following section, some of the literature addressing approaches and usages of media and internet within Inuit communities will be addressed, as well as the politics of Inuit media within Canada.

Neil Blair Christensen published an early account of Inuit usages of internet in the book *Inuit in Cyberspace: Embedding Offline Identities Online*. Christensen was interested in examining how online activities among Inuit communities and users, tended to represent a continuation of off-line concerns.

Christensen writes in his Introduction:

...I have found an interest in de-mythicising the Internet a little, or at least in showing that there is a continuum, a resemblance or connection between online cyberspace and offline space...I investigate how cultural identities of Inuit are asserted on the Web by reference to their offline communities... (2003: 12).

Christensen's work presents an example of cyber-ethnography, and examines the personal web sites, community web pages, cultural initiatives and online address books created by and visited by Inuit, arguing that Inuit are consciously interested in creating a kind of Inuit cyberspace that has pages and sites dedicated to Inuit culture and communities.

There are a multitude of other scholars who have done work on Inuit communities and internet. Soukup has also explored Inuit internet production and usage, in particular, how Isuma, a film production company located in Nunavut, operates the website Isuma.TV, which acts as an online hub for Inuktitut videos and resources, using internet as an archival space for Inuit cultural memory (2006). Alexander, Adamson, Daborn, Houston and Tootoo (2009) discuss how Inuit communities are using internet as a tool for cultural education and preservation, through the IQ Adventure Site, a website. Scobie and Rodgers, in their 2013 article "Contestations of resource extraction projects via digital media in two Nunavut communities," explore how people in Baker Lake and Pond Inlet (two Nunavummiut

communities) used social media to challenge proposed resource extraction projects. These scholars also looked at the social media activism of Makita, a public interest group composed of Nunavummiut concerned about uranium extraction (2013).

In short, the literature on internet usage by Inuit (of which only a few examples have been touched on above) provides some insight into why internet is a resource that Inuit in Nunavut would care to discuss in interviews for this project, and would advocate for at the federal level: internet can act as a tool to facilitate community and cultural concerns and priorities – if Inuit can have access and control of them.

Inuit Communities, Public Policy and Media Policy

The literature in the section above provides some reasons for why internet might matter to Nunavummiut as a cultural and political resource, although as will be discussed in *Chapter 4: “So frustrating,”* internet is also understood by some Nunavummiut as having possibilities for personal and private usage. However, earlier literature examining the history of how Inuit communities have gotten access to media such as the television and the radio, provides insight into why the fight for better internet access is in keeping with the historical patterns and relationships between the Canadian federal government and Inuit communities.

Something New in the Air, Lorna Roth’s 2005 in-depth examination of First Peoples’ fight for access to the tools for producing television, and the eventual creation of the Aboriginal Peoples’ Television Network (APTN) in Canada, shares similar themes and interest with this project. Firstly, media policy and campaigns to alter policy are central to Roth’s work, as they are in this project. Secondly, one of Roth’s central arguments is that First Peoples media advocacy has required collaboration – an argument that it is also made in the “internet politics” chapter within this thesis (*Chapter 5: Fractious Collaborations*). Her focus is on “the seeking of cross-cultural links and coalitions” among Canada’s First Nations, Métis and Inuit communities (2005: 13), while the focus in this thesis is on the

collaborations among various Nunavummiut broadband stakeholders, but the notion of a collaborative media politics is argued for in both works. As well, Roth's book makes clear the complicated nature of the relationship between media, Inuit communities and the government of Canada, where the complexities of government, its size and onerous structure, can make it slow-moving. Processes can become convoluted, taking years, even when all involved are in agreement on how something should be handled. But if Roth underlines that the federal government is not an unequivocal evil, she also suggests the ways that federal governments have not been entirely innocent, that the federal government can sometimes put indigenous issues on the back burner, and de-prioritize the issues both in terms of attention and funding (2005: 225), a topic that also emerged in this research, particularly in the fifth and sixth chapters (*Chapter 5: Fractious Collaborations* and *Chapter 6: A Local Connection*).

Roth's work demonstrates that Aboriginal broadcasting advocacy has had an impact on the development of policy, the creation of media resources and platforms such as APTN, funding programs and infrastructure, and also makes the case for media (in particular, television) as an "emancipatory tool", stating that "the aim of First Peoples media – locally, regionally, nationally, and culturally – tends to be political development and community empowerment" (2005: 9). In writing the history of First Peoples' media lobbying (in particular, television lobbying), Roth argues for the ways that First Peoples have moved from being "cultural objects" (primarily represented by Euro-Canadians and presented as an Other in media spaces) to being "media citizens," who actively produce, consume and advocate to have access to media, to create representations of themselves for themselves (2005: 16). This is a process whose origin she traces to the launching of the Anik satellite in 1973 (2005: 16) (which will be discussed in *Chapter 5: Fractious Collaborations*).

The resilience First Peoples have had to cultivate in the face of processes that can be frustrating, that can make them feel forgotten and less valued by the federal government when compared with

Southerners and Caucasian Canadians, led Roth and Gail Valaskakis to develop the notion of *cultural persistence*. This concept states that when First Nations and Inuit communities keep going, keep campaigning, protesting and arguing for their concerns, they are not simply resisting – they are persisting, continuing to uphold the principles and priorities of their cultures, despite facing hostilities, despite sometimes being ignored, despite a multitude of obstacles and challenges. Media, per Roth, are vital for indigenous communities, because they facilitate this persistence, but in fighting for access to media, indigenous communities have had to demonstrate this cultural persistence. Roth writes:

...it has become clear...that what First Peoples have demonstrated more than anything in their broadcasting initiatives has been a cultural persistence. This differs from the notion of cultural resistance, as currently popularized in Cultural Studies, in that it is not just a reaction against the unpopular or distasteful. In fact, as I have pondered the concept over the years, I have realized how important it is as a strategic recognition that all cultures count and matter in the general scheme of things: making it worth the effort for First Peoples to develop cultural promotion strategies; making it evident that this is indeed what has guided the development of First Peoples television over the years...they are cultures whose priorities have persisted... (2005: 17).

Frank Tester, like Roth, is also attentive to questions pertaining to policy and Inuit communities, and in *Tammarniit(Mistakes)* (1994), he and Peter Kulchyski explore some of the history of the federal government's relocation program for Inuit communities in the mid-twentieth century. Tester and Kulchyski explore how these programs were often put into place with seemingly good intentions. They were a consequence of the rise of the liberal welfare state, which overstepped its role in "improving" Inuit lives, without adequately consulting Inuit and considering the concerns and issues of their communities, their histories and relationships with the land. Thus, relocation strategies were formulated without attention to how these relocations might affect these Inuit communities and their abilities to survive (literally and culturally) when displaced to new locations (1994: 3-12). The picture of government painted by Tester and Kulchyski is more nefarious than the one offered by Roth, although in both, as with research on policy conducted by Alia (who examined naming programs (1994)), and Valaskakis (in her work on the Inuit Broadcasting Corporation (1984)), there are grey areas.

Repeatedly, government officials seem to have had some good intentions when creating programs which actually resulted in much damage, because they have not adequately taken into account the perspectives and needs of the communities in question.

Research on the relationship between Inuit communities and the Canadian federal government suggests the complicated nature of this relationship. What this literature also suggests are the strategic practices that Inuit in Canada have employed in their interactions with federal government: practices of patience, of slow but steady compromises that eventually lead to substantial change, of banding together with allies, of employing discourses that resonate with government and the Southern Canadian media for the purposes of explication and persuasion. The strategic performances of such discourses will be examined within this thesis, particularly in *Chapter 5: Fractious Collaborations*.

Frustration, Fantasy and Potential

In the earlier discussion of how internet is approached in this project, it was stated that no strict definition was given, to leave space for the many things, ideas and purposes internet might be seen as encompassing. This project, in examining Nunavummiut internet, focuses to some extent on internet as an idea, an emotion, and as an imaginary. In particular, the project argues that Nunavummiut internet is implicated in discourses of frustration, but also of potential: that internet in the territory is seen as inadequate and problematic by its users, but these inadequacies are intertwined with beliefs about what internet *could* be and do.

Early internet history was full of proclamations about how it would alter life, politics, economics, memory – because of its participatory form, because it facilitated the speedy transmission of information across space. Business leaders made the pronouncement in the early days of the technology that internet would change the nature of business, making it easier to be an entrepreneur (Gates 1995).

Others (Gilder 1994; Grossman 1995) have seen in internet a tool that will change the nature of

democratic citizenship and protest, and a means to revolutionizing power relations.

Deconstructions of cyber-utopianism often stress that new technologies and media in particular, are positioned as almost magical, seen as having potential to fix multiple problems (Mattelart 2000; Mosco 2004). James Curran (2012) has written specifically about how internet has largely failed to meet the expectations that some cyber-utopians had, because rather than internet changing society, society has had an impact on the development of internet. Curran writes:

It was assumed that the distinctive technological attributes of the internet – its interactivity, global reach, cheapness, speed, networking facility, storage capacity, and alleged uncontrollability – would change the world beyond all recognition. Underlying these predictions was the assumption that the internet’s technology would reconfigure all environments...readily available information tells a different story: the impact of the internet does not follow a single direction dictated by its technology. Instead the influence of the internet is filtered through the structures and processes of society (2012: 3, 8-9).

Media archaeologists have been particularly interested in what they term “media fantasies,” which can include both fantastical media as envisaged in science-fiction and fantasy novels, as well as the cyber-utopian possibilities accorded to new technologies discussed above, the idea that technologies and media might act as panaceas (Huhtamo and Parikka 2011). Kluitenberg has noted that media are not simply technical objects, but are also imaginaries, and with new media often comes the hope of transcendence – that cultural and linguistic obstacles to communication will be resolved, and time and space will be transcended (2011: 61-62). Vincent Mosco, in examining some of the myths that emerge with “new” media, has argued that when media is new, it is often seen as possessed of mythical properties, and that it is only when media becomes banal, when it ceases to be “new” and becomes “old,” that its users (and scholars) can more fully grasp some of its meanings and uses within its cultural and political-economic context (2004: 118).

While there are perhaps elements of cyber-utopianism in the digital divide and ICT4D discourses,

which were at times, employed by some Nunavummiut internet users, this project situates the hopefulness, the potential that various Nunavummiut users interviewed for this project place in the possibility of improved internet access not within cyber-utopianism but closer to what Sandvig discusses when talking about *appropriation toward parity* in the sphere of indigenous media.

Appropriation Towards Parity and Potential

Christian Sandvig researched the Tribal Digital Village (TDV), an internet distribution network in California that provides indigenous peoples in these areas, some of whom have inconsistent access to electricity and paved roads, with internet access through the use of solar-powered towers built by members of the community from discarded cell phone towers (2012). Sandvig thus highlights the ways that the communities he studies have taken initiative in building their own networks through the use of materials intended for other purposes, and the ways their practices complicate discourses of appropriation.

Sandvig finds appropriation a useful concept for those studying technology, because “it can free us from the assumption that technologies always unfold in the ways they are intended to...” (2012: 191). Drawing on Latour’s actor-network theory, discussed above (2005), Sandvig notes that technology is always changing, as it is comprised of a network of actors and actants, who work with and through technology, and in so doing, alter it. However, if Sandvig notes the helpfulness of appropriation as a concept that helps researchers focus on the ways that technologies shift and change through usage and interactions, he underlines that in technology studies, appropriation has often been equated with difference. He cites the work of von Hippel (1998) and in particular, the essays of Eglash, Croissant, Di Chiro, and Fouché (2004), whose study of technological appropriation focuses on how those outside of the centres of scientific power reinterpret (change the meaning of), adapt (change the meaning and use of) and reinvent (alter technical structures) of technologies. However, in the case of the TDV, Sandvig

suggests that appropriation is not about a desire for difference. Instead, it is about finding ways to achieve technological parity. He writes:

Appropriation appears in technology stories as the engine of difference ...it's a concept that connotes virtuous inventors, hackers, tinkerers, phreaks, and colorful technical virtuosos who strive to change the sterile status quo ... Like any appropriation story, the story of the Tribal Digital Village has underdogs and daring, but in the end I find it speaks for a very different perspective on appropriation than what has often been written: a perspective that I will call "appropriation toward parity." Rather than an engine of difference, in the case of the TDV it is clearer that some kinds of appropriation can be engines of similarity in the development of technological infrastructures ... (2012: 191).

As Sandvig notes, appropriation is often associated with the countercultural, but the kinds of appropriation of infrastructures that he observed among indigenous communities in southern California, suggested to Sandvig less rebellion and more an attempt to have infrastructures and media access more on par with the norm in California (2012: 191).

If Mosco (2004) and Kluitenberg (2011) discuss the imaginaries that media and the mythologies that new media can embody for users who dream of a more perfect future, interviews with various Nunavummiut informants suggest an imagining of internet that instead of being transcendent, is more akin to what is available in Toronto. Nunavummiut internet discourses of potential, instead of suggesting the fantastical or the cyber-utopian, speak more to a desire for parity, for similarity and equality of access with other areas of Canada. As such, the word *potential* instead of *fantasy* has been employed within this thesis to describe some of the hopeful ways that informants spoke of internet's future possibilities.

Media Failure and Frustration

As stated in *Chapter 1: Introduction*, failure and frustration are parts of media experiences, as explored by Larkin when examining black outs in Nigeria (2008), and in Akrich and Latour's concept of pre/description (1992). Larkin, in particular, makes the point that media are always affective, fantastical (2008: 2) and political, and that frustration around media and failures of media infrastructure, can

indicate and help constitute particular relationships between a state and its citizens (2008: 243-343).

Drawing on Larkin, Akrich and Latour, the gap between how media are seen to ideally operate and how they operate in practice, and how this impacts user experiences and discourses pertaining to these media, are explored in this research project. The project examines experiences of Nunavummiut internet, as well as its politics, particularly through exploring Nunavummiut internet discourses that focus on how internet in Nunavut can frustrate.

This focus on the frustrating aspects of media is one that is also influenced by Siegfried Zielinski, a media archaeologist who focuses his research on largely forgotten inventors and innovations (2008). In *Deep Time of the Media* (2008), he writes of the prevalent tendency of media and technology histories to present “comforting fables” (2008: 2-3), stating:

In the extensive literature ...one thing above all others is refined and expanded: the idea of inexorable, quasi-natural, technical progress ...In essence, such genealogies are comforting fables about a bright future, where everything that ever existed is subjugated to the notion of technology as a power to “banish fear” and a “universal driving force” (Zielinski 2008: 2-3).

By zeroing in on technological and communications inventions that we no longer use and are largely unaware of, Zielinski upends the idea that technologies move in a linear manner (an idea that Mattelart also argues against (1996: 303)) and instead shows that technologies are often dead-ends, not “leading” anywhere. The argument here is not that Nunavummiut internet is itself a dead-end, but instead that what Zielinski offers is a template and precedent for examining media that, like Nunavummiut internet, are not considered full “successes.” He provides a rationale for studying such media, arguing that they contribute evidence to media studies that creates a more fulsome picture of a technology at a given moment in time, a picture that includes both its successes and failures.

The feelings that cluster around Nunavummiut internet, some having to do with perceived inadequacies, as well as hope for what internet could be and do if improved, speak to an understanding

of internet in temporal terms: as in the present but also within the potential future. This is the particular register in which Franklin addresses the question of internet governance, asking: What could internet be? What should it be? (2013: 15). Franklin asks these questions with the sense that having debates about the possible future of internet allows activists, academics, coders and regulators to help shape that future, to work towards it.

Conclusion

This chapter has explored the key debates in which this project situates itself, debates on internet governance (who controls the internet, and what is the role of the nation-state?), on the cultural nature of internet (are media culturally-influenced? How have Inuit communities used media for their cultural purposes?) and debates about the definition of internet (can it be defined by its form, its content or its usage? Is it a technical object or a cultural practice?). In exploring these debates, key concepts have been elucidated, such as *cultural persistence*, *spatial (in)justice*, and *appropriation toward parity*. In reviewing the relevant literature, discussions of ideas from Inuit studies, actor-network theory, and internet's relation to space have been probed.

In the next chapter: the thesis' methodological approach.

Chapter 3: On Methodology

Introduction

In developing a methodology for this thesis, two considerations took precedence. The first was to assess which methods were best suited to gather evidence that would respond to the project's objective of understanding the ways Nunavummiut internet has been discursively constructed. The second concern involved considerations about power and ethics, specifically, the power of the researcher within the research process, particularly when the researcher is relying on the testimonies and narratives of groups that have been historically politically and economically marginalized, such as Inuit communities in Canada.

This chapter explores ideas and practices developed in response to these considerations and in light of the main methods employed for this research: interviews, archival research and to a limited extent, participant-observation. In the pages that follow, the processes employed in data collection and interpretation for this thesis are detailed; the practical and theoretical rationales behind the selection of methodologies are examined; and the ethical concerns and practices connected to this thesis' methods are probed.

How the Research was Conducted

Data collection for this project began in the fall of 2013. I spent the month of October in the Canadian province of Ontario. The bulk of that time was spent in Toronto, attending events concerned with Inuit art and film (I was present during the IMAGINative festival), meeting members of the Inuit community based in Toronto, as well as speaking with Nunavummiut visiting Toronto during that time.

During this month, I also spent three days in Ottawa, where I met with a source from Inuit Tapiriit Kanatami, an Inuit advocacy group in Canada. While in Ottawa, interviews were conducted at an Inuit

community centre that acts as a place where newly arrived, visiting or Inuit firmly settled in Ottawa, (many of whom are from Nunavut) can connect with others in the Ottawa Inuit community. At this community centre, visitors have access to a food bank, take part in job preparation, participate in social programs, and gain access to resources such as internet.

The goal in visiting these locations and speaking with these interviewees was to make or deepen relationships with contacts who had experience with Nunavummiut internet, and therefore could both speak to their personal narratives of internet, and in some cases, could provide other contacts or leads, with other people they felt would be valuable to speak with (most of whom were based in Nunavut) – in this way, helping the researcher build a network of Nunavummiut informants.

Over this one month period in 2013, I conducted 39 interviews in total, with 17 conducted face to face, the remainder occurring over the telephone. Upon returning to the UK, I continued to conduct phone interviews, in many cases, following up with people that I met in person as well as speaking with others that my initial interviewees had recommended I connect with. Of the 39 interviews conducted during this period, one was with a curator of Inuit art based in Toronto, ten were with Nunavummiut who had moved to the Canadian South, 11 were with Canadian government officials and representatives of telecommunications companies providing internet services to Nunavummiut, and the remaining 17 interviews were with Nunavummiut living in Nunavut, some of whom were visiting Ottawa during that time.

The next intensive period of data collection was in the fall of 2014 (although during the period from fall 2013 through fall 2014, I continued to conduct telephone interviews with informants). In the autumn of 2014, I spent just over two weeks in Iqaluit, Nunavut's capital city, located in the southeast region of Baffin Island. Iqaluit is the most populous community in Nunavut, but less than 8,000 of the

territory's population lives there. It is the Arctic centre for business and government; all three branches of government (municipal, territorial, federal) have a presence in Iqaluit. The visit was timed to coincide with the annual Nunavut Trade Show, at which political, business and cultural entities from across Canada gather for a few days to showcase their products and services. It meant that several contacts based in Western provinces and the other territories were in town while I was there and I was able to meet with some of them face-to-face. I also visited the Iqaluit Community Access Program (CAP) site every day it was open, while in Iqaluit. The Iqaluit CAP site is a space where a wi-fi connection, internet-enabled computers, digital technologies, and programs related to digital technologies, are offered to residents and visitors to the city as a public service, free of charge. I would term the research method employed at the CAP site participant-observation – I observed patrons using the technologies, patterns of usage (how long people stayed at computers), as well as internet issues that arose, and I also used internet there (I participated), to acquire my own sense of how internet was provided and experienced at the site.

Prior to travelling to Nunavut, it was necessary to acquire a research license from the Nunavut Research Institute, a body that regulates and supports all research activities within Nunavut. To obtain this license, I had to provide a summary of my project, the informed consent form that would be used with informants, the question guides for the project, as well as references from within the Inuit community who were supportive of my research, with all documents provided in both English and Inuktitut. The project description was brought before a town hall in Iqaluit, where no objections or concerns were raised in regards to the research project and its methodology. I was therefore granted a license to conduct research and interviews in the territory (one is not permitted to conduct research in Nunavut without a license).

In total, 61 interviews were conducted for this project: 35 were face to face (18 in Ottawa, one in Toronto and 16 in Iqaluit), while the remaining 26 occurred over the telephone/Skype. In terms of the demographics of interviewees, 28 identified as Inuit, while 33 were non-Inuit (not all non-Inuit interviewees were white, and some non-Inuit interviewees had lived in Nunavut for several decades). In terms of age, all interviewees were over 18: 30 were in the in the 18-40 age range, while 28 fell into the 41-60 age range, with three in the over 61 age range. As for gender, 29 interviewees were male and 32 were female. In terms of socio-economic class, there were instances where I judged that asking interviewees to identify themselves in this regard would be insensitive. As a consequence, breaking down the project's interviewees by class here would be speculative. However, it is worth bearing in mind statistics related to economic class in regards to Inuit and other Canadians: almost half of the adult Inuit population in Nunavut make less than \$20,000 (CAD) a year (CBC News 2014) while non-Inuit living in Nunavut have a median average income of over 85,000 a year (Peritz 2014); Canadians on average earn just under \$50,000 a year (Statistics Canada 2016). Finally, though informants were explicitly offered in all cases an Inuktitut translator, all interviews were conducted in English, reflecting the widespread use of English in Iqaluit, a difference that some contacts noted from other communities within the territory, where unilingual Inuktitut speakers are more common.

Interviewee Selection, and how Interviews were Conducted

Interviewees for this project were located in several ways. The first batch of informants were located through archival research: by going through the news, looking at web sites, reading government reports, and seeing mention of individuals who had worked with or were involved with Nunavummiut internet, particularly those who had worked to bring internet to the territory, and those who were currently campaigning for improved access. 14 interviewees were located in this manner. When speaking with these informants, I asked if they knew anyone else that they thought would be able to provide some insight on Nunavummiut internet and would be comfortable speaking with me. Based on

recommendations, I interviewed 10 people.

I would usually find an informant's email address through online searches, and contact them that way, providing a brief summary of the project, the time requested for the interview, the different ways in which the interview could be conducted (in some cases, face to face, but often the choice was between the telephone or Skype). When I was in Nunavut and in Ottawa, I found some informants just by being in specific places at specific times, going up to people and asking them if they had time in the near future for an interview, and then setting up an appointment or exchanging email addresses to finalize appointment details. Face to face interviews in Ottawa occurred mostly at the community centre (three interviews were at the informants' workplace), whereas the interviews conducted in Iqaluit varied by location: four took place at the informants' homes; one took place at the CAP site; one took place at the local Tim Horton's; eight took place at the informants' place of work; and two took place at the coffee shop within the Royal Bank building in the city centre.

Interviews for this research project varied in length from forty minutes to three hours. Each interview began with my reading the informed consent form¹¹ (which had been reviewed by the Nunavut Research Institute), explaining the purposes of the interview and the research project, what the information collected would be used for, how that information would be stored, offering the informant the opportunity to conduct the interview in English or Inuktitut (with the help of a translator, in the latter case), and asking the informant, if they wanted to remain anonymous when quoted or referred to within the thesis, or if they wished to be named (only one informant, Madeleine Redfern, chose to be named). As well, interviewees were asked for permission to record the conversations, and all interviewees save for two, granted their consent. Therefore, 59 interviews were recorded.

The interview type employed for this research was semi-structured interviews – that is, interviews

¹¹ The informed consent form utilized for this project can be found in this thesis, in the *Appendices* section.

where a question guide was formulated in advance, thereby providing some structure to the discussion, but allowing for sufficient freedom in the process so that if the informant led the interview in unanticipated directions, the question guide could be modified to include new questions, or to omit questions whose irrelevance to the specific informant became apparent over the course of the interview (Brinkmann 2013: 21).

Before each interview, I prepared by learning as much about the interviewee, their work and perspectives as possible, and trying to identify what areas the interviewee would feel most comfortable and most able to speak to. I then constructed a question guide that aimed in the first two questions, to gather information about the interviewee (demographic information as well as other background information), which could hopefully also be easy enough to help the interviewee feel more comfortable about the interview process. I then moved on to asking questions pertaining to their relationship with Nunavummiut internet. If they were users, the questions focused on their experiences and ideas relating to internet usage: what they used it for, what they wanted to use it for, if they found it effective and accessible. If the interviewee was an internet advocate or lobbyist, I asked questions regarding the politics of internet, the funding and how they perceived the workings of internet in the territory. Question guides can be found in the appendix to this thesis, but as stated above, they were not followed religiously. If the interviewee led the interview down an unforeseen path that seemed fruitful, lines of questioning were altered to follow these leads.

The interviewees for this project came from a variety of backgrounds: seven were government officials; 14 were involved in the provision of telecommunications in the North or were involved in the advocacy for more funding for internet at the federal level; 41 were users of Nunavummiut internet, based in Nunavut, or had re-located to the Canadian South. Interviewees were selected because they had used Nunavummiut internet, or had wanted to access it; had produced content for Nunavummiut internet or

had wanted to use Nunavummiut internet as a space for content and/or because of their involvement in the politics of internet in the territory. I wanted to speak with people who had different experiences and uses for internet and digital technologies. Informants were selected with the objective that they would have opinions, experiences, beliefs, hopes and emotions regarding internet in Nunavut, some subjective experience of internet that they could speak about, and from which I could attempt to discern some discourses that construct internet in the Nunavut (and which, in turn, are constructed and impacted by internet experiences).

The amount of informants (61) was judged to be sufficient based on my reading of the work of interview theorists such as Seidman (2006: 55), who suggested that once an interviewer began hearing very similar answers, the time to stop interviewing had come. Understanding knowledge as always partial, and that I would not, and indeed, could not, elucidate and sum up *all* discourses pertaining to Nunavummiut internet, I made the decision to do as many interviews as I could manage, knowing I would aim for the goal of having partially discerned only *some* discourses and narratives, which would be reflective of only *some* Nunavummiut experiences.

After the Interviews

After interviews were conducted, initial notes were made about the main themes and points of interests raised by the interviewee. As quickly as possible (within two days), interviews were transcribed. After the transcription, interviews were read, and categories were assigned to different statements from the interviews that struck the researcher as interesting or insightful or contradictory (when compared with other interviews) or as emblematic of and consistent with ideas expressed by numerous other informants. I would highlight different portions of each interview in different colours, with each colour assigned a category such as “access problems”, “potential of internet to facilitate Inuit cultural practice”, “disappointment or frustration with internet”. With each new interview, statements were read

for how they fit within the categories already in play; however, over time, as more data was collected, transcribed and analyzed, categories shifted, were refined, and sub-categories also developed, so that, for example, “disappointment with internet” became a larger category with sub-categories pertaining to the specific disappointments associated with internet, such as “inability to bridge distances to desired extent,” “inability to employ internet in the manner used in the South,” “not good enough connection for individual goals.”

A similar process was used for the analysis of archival materials – materials were analyzed to discern how statements made in the materials could be categorized, as a means of both developing and discerning the main themes and discourses within the texts. Over time, links and connections between categories found in interviews and archival materials (such as whether they were sub-categories falling within a larger category) were elucidated and drawn, leading to the development of the thesis’s central arguments. The main method of analysis, therefore, for both interviews and archival material, was interpretive and hermeneutical.

To speak more in-depth about the archival materials: I examined archival materials throughout the research process, beginning in the summer of 2013. The focus was on documents published between 2012-2016 (although documents extending back into the 1990s were examined), having to do with Nunavummiut internet politics, funding, infrastructure and advocacy. These documents were selected because of this thesis’s interest in discourses having to do with the contemporary politics of Nunavummiut internet. These archival materials included government reports on internet and infrastructure, transcripts of government hearings pertaining to telecommunications, telecommunications and service provider business proposals, and relevant media articles – some of which are publicly available, while others were shared with me by those working within these sectors.¹²

¹² See this thesis’ *Appendices* for a listing of archival materials examined for this research project.

As well, online content produced by Nunavummiut was also read through and watched (videos, Facebook pages, Twitter accounts as well as websites), mostly as a means of gaining further background and orientation on some of the Nunavummiut content online. Some of this content came about through my own searches, but much of it also emerged from conversations with informants, about the pages and videos they visited on a regular basis.

Rationales for the Methodologies Selected

The research objective outlined in *Chapter 1: Introduction*¹³ has acted as the main guide for determining which methods to employ for this research project. As stated above, interviews and archival research were the main forms of data collection, with a very short period of participant-observation during the time spent in Iqaluit, particularly at the CAP site. Below, the rationales for selecting these methods are discussed.

To begin with the method used the most sparingly for this doctoral thesis: participant-observation. Media studies researchers (Ang 1996; Morley 1998), drawing from cultural anthropology (but also altering the length of time necessary in the field for the research to be considered “participant-observation” within their discipline) have employed participant-observation as a means of incorporating cultural practice and social relations into their research on media. Morley has argued, regarding why this kind of approach to television viewing audiences adds to understanding the background to their activities: “...the social relations within which viewing is performed as an activity... have to be brought more directly into focus if we are properly to understand television audiences’ choices of, and responses to, their viewing” (1986: 15).

While my own time in Iqaluit was quite short, the benefit of traveling there, of engaging in even an abbreviated period of participant-observation seemed worthwhile for the context and background it

¹³ See pages 10-11 of this thesis for this research’s objective.

could give. It provided a sense of what it was like to use internet in Nunavut, allowed me to observe the interactions and actions of users at CAP sites, and to further build up a network of informants for the project. There was value in just being there – in listening to the radio in the mornings, in being able to use internet there, in meeting people I might not have otherwise encountered. And I went on a daily basis to the CAP site in Iqaluit (where computers and internet access (through computers as well as wi-fi for mobile phones) are available free of charge to the public), to observe and use the computers. In short, the research trip to Iqaluit, which involved two weeks of observing and at times, participating, was a way of gaining a deeper feel for the context, for providing a first-hand experience of internet in the territory, for giving the researcher some necessary background in which to situate the project's interview and archival data (which formed the bulk of the evidence for this thesis), and to observe, to a limited extent, aspects of social relations at CAP sites. The only drawback of the experience did not have to do with the methodology itself, but with the sense that had there been more time and resources, a longer period of participant-observation would have further benefited this project.

Interviews and archival research were chosen primarily for the kind of evidence they elicit. This doctoral project is primarily interested in some of the discourses of Nunavummiut internet, in some of the ways that Nunavummiut internet has been narratively constructed by its users, lobbyists, advocates, government officials and service providers. This research tried to get to some of the meanings of internet in Nunavut, and how meanings and associations with internet dovetailed in particular with internet politics and historical narratives.

As such, hearing or reading what informants and relevant parties had to say about internet were considered vital tasks for elucidating some of the narratives that characterize and construct Nunavummiut internet. Interviews and archival research (such as the transcripts of testimonies given concerning internet to the CRTC) were therefore seen as useful methodologies for answering the

research objectives, and they were methodologies that fit both with the theoretical goals and the practical limitations that influenced and structured this project (such as travel constraints and funding). As well, archival research, beyond acting as a source for discourses, also provided some background and secondary research, while interviews have the benefit, as shall be discussed in greater depth below, of being suited for the collection of data on expressions and articulations of subjectivities and meaning-making.

Some of the drawbacks or potential problems associated with interviews and how these were mitigated will be discussed in greater depth later in the chapter. However, these include: ensuring that interviewer bias does not dictate how the findings are interpreted, being mindful that interviewees might not always be “reliable” witnesses, and in the case of telephone and Skype interviews, having to rely on the interviewee to provide most of the context around themselves, because one cannot observe the interviewee within their context in these instances. All these are factors to consider when analysing interview data. As for the archival method, its main drawback is that it mostly provides, particularly in the case of transcripts of hearings, the words spoken: the tones used by speakers, their facial expressions and body language are lost in the transcription. What was said can be found, but aspects of how things were said (which can act as a form of data) can be difficult to discern when reading the transcript of a hearing. One can attempt in this case, to ascertain things such as tone, from the responses given by others (or, if there was laughter recorded after a person spoke). But for the most part, when reading through archival materials, one has to be aware that there is the potential for misunderstanding the way that a speaker might have intended for their remarks to be interpreted, because of certain gaps in the information provided in a transcript.

The approach in this research has been inductive (Brinkmann 2013: 53; Glaser and Strauss 1967) – I started with the gathering of evidence, conducting interviews, categorizing and coding interviews,

discerning prevalent discourses, and from there returned to theoretical concepts (internet, spatial (in)justice, parity, cultural persistence) developed by scholars prior to this research, to refine and/or argue for their expansion or alteration or for how they fit with the data collected. The move then throughout this research, has been to start from the ground up and move toward theoretical discussions.

Face to Face? Telephone? Skype?

Much literature on methodologies within the social sciences tends to prioritize face to face interviews over any other kind (McCoyd and Kerson 2006). If communication between people involves (but is not limited to) verbalized language, then it follows that meeting with someone face to face could mean being privy to a more fulsome communicative event (O'Connor, Madge, Shaw and Wellens, 2008).

Interviews via telephone or online platforms, on the other hand, have sometimes been theorized as being second-best interview options. With fewer visual cues available to the researcher, with the greater need to stick to the topic at hand (it is more difficult to explore unintended areas, to go “off topic,” when not face to face with the interviewee), interviews not conducted in person have been seen as being less fruitful than face to face meetings (Deakin and Wakefield 2014). As Deakin and Wakefield state:

...discussions surrounding the face to face interview can often feel uncontested, and online interviews are presented as a second choice or alternative when this ‘gold standard’ of interviewing is not possible (2014: 604).

As mentioned earlier, 26 out of the 61 interviews that I have conducted have occurred via telephone or Skype. It was, in many cases, the only way to speak with informants living in communities that I would not be visiting, and it was also a way to speak with informants whose schedule would not allow the time for a face to face meeting. While I would agree with many of the benefits outlined above concerning face to face interviews, particularly for their ability to convey non-verbal communication, I would also say that there were benefits to using the audio application on Skype for example. At times,

when using this application, I was given further insight into the technology under study. Most of the time, Skype worked for both myself and the interviewee; but there were multiple occasions when there were noticeable delays, or when the connection cut out inexplicably (much more so than in other (non-Nunavut based) Skype interactions that I have had), and that helped to reinforce what my informants were (usually) trying to say about their experiences of Nunavummiut internet as problematic and unreliable. In this way, Skype-based interviews acted as a limited but still useful means of observation of how a particular application worked on the Nunavummiut internet. And what Skype and the telephone did provide was a means of speaking with informants that might have conveyed less data than a face to face interview would have, but still provided more evidence than if I had not spoken to those informants at all.

I was always keen to ensure that participants knew that I was open to speaking with them via telephone and was not only available via Skype for, as Deakin and Wakefield write: “Online interviews may... mean that some participants are excluded due to the need to have technological competence required to participate, obtain software and to maintain Internet connection for the duration of the discussion” (2014: 605).

In short, while face to face interviews might provide a number of benefits, particularly in the form of non-verbal cues, telephone interviews and Skype had their value as well. Both allowed me to interview those living in communities I would not be able to visit. Communicating via Skype allowed me to sometimes gain some insight into the problematics of internet in Nunavut, while the telephone was a more inclusive medium, allowing me to speak with those who might want to be more cautious about their bandwidth cap for that month or who might not have access to internet at their home.

Interviews: Theory, Ethics and Issues

The paragraphs above described how research methods were employed during this project; the

following pages delve into some of the theoretical and ethical considerations relevant to this thesis' methodological approach. To begin: theoretical considerations of interviews.

Maccoby and Maccoby famously defined interviews as “a face-to-face verbal exchange, in which one person, the interviewer, attempts to elicit information or expressions of opinion or belief from another person or persons” (1954: 449). In subsequent years, this definition has been re-iterated, criticized and altered. The “face-to-face” aspect of their definition has been contested by interviewers who speak to their informants via telephone, Skype and other communication platforms (see the discussion of telephone and Skype interviews in the section above). Some scholars have contested the characterization of an interview as a “verbal exchange”, suggesting that this brands the interview as a primarily behavioural and not linguistic activity (it is focused on the action of talking, as opposed to both the action-oriented as well as passive means of conveying information and communicating) (Mishler 1986: 10), and disregards all non-verbal information that can be communicated during an interview (facial expressions, body language) (Labov and Fanshel 1977; Schumann and Presser 1996). The relationship that Maccoby and Maccoby describe between the interviewer and interviewee (“the interviewer, attempts to elicit information or expressions of opinion or belief from another person” (1954: 449)) has been debated among qualitative interviewers, some of whom suggest that the interview is jointly constructed by both interviewer and interviewee (denying that the interviewer necessarily leads the interview) (Denzin, Lincoln and Giardina 2006; Fine 1994). Others argue that the main point of the interview should be that the interviewer attempts to alter, change or empower the interviewee (Mies 1983). Some would qualify the “information” that Maccoby and Maccoby refer to as only constituting the life-world narratives and subjective experiences of informants (Mishler 1986; Wengraf 2001), while other scholars argue that interviews can provide data on more than narratives, that they can act as a resource for learning about circumstances and events described by the interviewee

– that interviews can act as a source for “facts” (Josselson 2013; Thomsen and Brinkmann 2009).

So there is no consensus on what an interview is, the respective roles of the interviewer and interviewees, and the kind of evidence that can be drawn from interviews. In the pages below, the varying perspectives about the nature of interviews, their reliability, objectivity and generalizability, the evidence that can be collected, and the role and power of the interview-researcher, will be discussed.

However, to begin this theoretical discussion of interviews, some of the ideas of Steiner Kvale will be examined. Kvale has responded to some common objections to interviews throughout his career, but particularly in the article “Ten Objections to Interviews” (1994). His responses to common objections to interviews, particularly the objections that interviews and evidence from interviews are not objective, reliable or generalizable, are examined below.

Kvale on Objectivity and Reliability

In regards to the criticism that the data generated by interviews is not objective, Kvale responds by first exploring the meanings attached to the term “objective.” These meanings can include: some reality that stands as universally true; an investigation of a particular object; or a perspective that is unbiased and neutral (1994: 6). In exploring the various definitions of objective, Kvale is able to point out that there is no one definition of about what constitutes objectivity. He writes: “...the lack of intersubjective consensus on the meaning of objectivity testifies to objectivity being a rather subjective notion” (1994: 6). In short, any definition of objectivity is itself subjective. In that case, the subjectivity of interview data is not an issue; all data, all evidence, even that which claims to be objective, is, to an extent, subjective, because any claim to objectivity is based on a subjective construction of the term.

Moreover, Kvale, in pointing to the understanding of the objective as having to do with the object, suggests a way in which interviews can, in fact, be considered objective. He writes: “Objectivity may

also mean reflecting the nature of the object investigated, letting the object speak, being adequate to the object investigated, expressing the real nature of the object studied”(1994: 7). In this case, the objectivity of the interview data would depend on the interviewer’s skill at creating an environment and facilitating a rapport with the interviewee that would facilitate the discussion of the interview’s main object of interest and study (1994: 7).

Beyond being branded as non-objective, interviews have also been criticized for producing unreliable findings, particularly because processes of coding and categorizing are seen as reflecting the interests of the researcher, and have the potential for the researcher to “read” what they want into the data, making their conclusions non-replicable. Some scholars attempt to mitigate what might be seen as this potentially unreliable analysis by recruiting others to read over the transcripts and code them, thereby ensuring that the analytical power and the biases of the primary researcher are checked and balanced by other perspectives, which can either confirm the researcher’s sense of the main categories and statements of interest within an interview, or force the researcher to see the bias of their original analysis (Wengraf 2001: 229).

This tactic of recruiting others was not available to me during this project. My use of analytic induction (which Pascale refers to as “the systematic examination of similarities within and across cases to develop concepts, ideas, or theories” (2011: 53)) and data-driven coding (codes were derived from the data, and were not constructed prior to data analysis (Brinkmann 2013: 62; Charmaz 2011)) might therefore be seen as having the potential to be biased, to simply reflect what I wanted to see in the data. In response to the idea that any individual interpretation is necessarily biased, Kvale notes what would constitute a biased subjectivity when it comes to interview data. Kvale states: “A biased subjectivity... means unprofessional work, readers only noticing evidence supporting their own opinions, selectively interpreting and reporting statements justifying their own conclusions, overlooking any

counterevidence...” (1994: 13). That someone other than the researcher might interpret the research differently does not, however, necessarily make an individual interpretation biased. As Kvale goes on to note, there is not only one definitive interpretation of interview data – there are a range of possible interpretations for any interview – and this points to the rich possibilities of the interview method (1994: 13). That two researchers might code data differently does not therefore, necessarily point to the errors or bias of their coding, but to the myriad of interpretive gateways offered to a researcher by an interview. The reliability of the analysis, according to Kvale, is derived from “an impressionistic common sense method of interpretation” (1994: 14) and depends on the rigour of the researcher, in ensuring reflexivity throughout the process of data collection and analysis, in being thoughtful about sample size and informant selection, and in ensuring multiple, sustained engagements with the interview material over a period of time.

If the reliability of the researcher has been called into question, so has the reliability of interviewees. What if the interviewee lies? Seidman argues that a researcher can check individual interviews against each other (to see if a statement from one interview has been supported in interviews with other informants), as well as checking interview statements against data drawn from other sources (from newspaper reports, government accounts, and other resources in which the issue under discussion has been detailed) (Seidman 2006: 24-26). But what of information provided by informants that cannot be matched with other interview statements, where there is no other documentation to verify or challenge the informants’ claims?

This possibility of deception or less nefariously, of the informant tailoring messages for the perceived benefit of the interviewer, means, again, according to Kvale, that care needs to be taken within the research process, in how informants are selected, in the kinds of clarifying questions asked to informants during the interview, and in the establishment of a rapport that leads the informant to be

adequately comfortable in speaking what they perceive to be the truth of a situation or issue, and gives them the freedom to speak freely, not simply to speak to please the interviewer (1994: 11).

Kvale On Generalizability

Kvale also responds to the criticism that interview results are not generalizable – that the information and evidence drawn from interviews only pertains to the particular informants, and has little to say about anyone outside the cultural or geographic context of the interviewee, or as some scholars argue, about anyone or anything outside the interviews themselves. Kvale responds by critiquing the idea of generalizability itself, questioning whether it is a benefit, and a goal for social scientific research to strive for. He suggests instead that the idea of universal truths that underlies the idea of generalizability is what is problematic: underlying generalizability is the notion of some kind of objective reality, a truth that is binding for everyone, an idea that has been countered particularly by postmodern theorists, who have argued for a multiplicity of perspectives, and for all knowledge as partial (1994: 17-18).

Instead of generalizability, Kvale argues, research should strive to produce knowledge that is localized and data that is specific, because knowledge is partial and needs to be situated and contextualized.

Interviews and even single case studies, he argues, are particularly suited for eliciting and constructing local, specific knowledge, because of their ability to examine the small-scale, to be focused on the narratives of particular individuals. This leads to a construction of knowledge that urges the research towards contextualization and situation amidst relevant factors, such as geography, cultural practice, politics, and socioeconomics. He writes: "...the focus on single cases made it possible to investigate in detail the relation of a specific behaviour to its context, to work out the logic of the relation between the individual and the situation" (1994: 20).

In sum, Kvale responds to these common criticisms of interviews, by pointing out issues with the criticisms themselves, while also arguing for the ways that interviews can be objective and reliable and

suggesting that generalizability is not necessarily a virtue. Below, I address how issues of generalizability, objectivity and the reliability of informants have been handled or dealt with within this thesis.

Generalizability, Objectivity and Reliability in this Thesis

To begin with generalizability: this work is aimed at the building of context-specific knowledge, and on focusing on ways that internet, though a global network, involves localized interactions and interpretations – so the main goal of the research is not generalizability, but to build knowledge that is specific to Nunavut. Some of the project’s findings might be connected to or similar to internet discourses and narratives in other areas of the world, particularly those where internet access is experienced as problematic, in which case, theoretical bridges might be built between researchers working on conceptualizing internet in these areas and cultures. However, what might be most generalizable from this thesis are the ideas and orientation towards internet, the insistence on the localized nature of internet discourses and narratives, the argument that media technologies are always experienced specifically, within particular places, cultures, and times. The goal of this research, in short, was not primarily that its “findings” would be necessarily widely generalizable, but to add to knowledge about internet in Nunavut, reinforcing the idea of internet as localized on a conceptual level.

In terms of objectivity, the main goals of this research had to do with subjectivities (with the experiences, opinions, beliefs and emotions) of the interviewees – and so objectivity, if meant to be some agreed-upon, universal reality, was not the focus of the study: differences in perspectives, and multivocality were strived for. If, as Kvale noted, the goal was to gain some knowledge about the object under discussion (internet in Nunavut, discourses of internet in Nunavut), I would argue that the number of interviewees has provided sufficient data for there to be an argument for this research having discerned some localized discourses, for having centred itself around and investigated a particular

object (in its case, Nunavummiut internet).

In terms of assessing the reliability of the data, trying to interview as many Nunavummiut as possible and juxtaposing interviews with government documentation has helped to ensure that much of what has been said to me during interviews has not been fabricated. As for my own biases, I have employed certain practices of reflexivity, such as keeping a research diary, writing notes about my own feelings and ideas, and asking for the advice of others about my conduct and interests, as means of creating awareness of my analytical biases, and, hopefully, being able to mitigate them when necessary.

What Information Can an Interview Provide?

On the question of what kind of evidence can be elicited from interviews, the work of Tim Rapeley is often cited. Rapeley notes (2004) that the interview is increasingly used by qualitative researchers as a methodological tool and that it has also been increasingly theorized. Rapeley divides the perspectives of interviews theorists into two main categories: the *interview data-as-resource*, and the *interview data-as-topic* (2004: 16). According to Rapeley, the first category, the data-as-resource view, sees the evidence gathered during the interview as reflective of the interviewees' realities outside of the interview. The data-as-topic perspective, on the other hand, looks at the interview itself as an event, constructed by its participants, with the data collected reflecting the reality that was constructed by the interviewer and interviewee during their session. The notion of the interview data-as-resource, the idea that interview answers provide data that directly reflects the interviewee's experiences outside the interview, has undergone much critique, in recent years.

Most of that critique relates to the data-as-resource's inadequate problematization of the interviewer's role and the interview context: an insufficient recognition of the power of the interviewer, of the relationship and rapport established between the interviewer and interviewee, of the going-ons in the

life of both interviewer and interviewee the day of the interview, of the interview environment, among other factors. All that can affect the way that informant and interviewer experience the interview, and how they choose to conduct themselves, and what comes to mind when asked specific questions, have to be considered. Writing about the necessity of considering the circumstances and the factors influencing how an interview is constructed, Rapley states: "...these ways of understanding, experiencing and talking about that specific interview topic are contingent on the specific local interactional context and should be analysed, at least initially, from the circumstances of their production" (2004: 16). What this means, he notes, is that the researcher, when analyzing interview data, must view interview content as an account that needs to be contextualized. Interview analysis should begin by reflecting on the backgrounds of the interviewer and the interviewee, and on the context of the interview itself: where and when it has taken place, how it was conducted by the interviewer (2004: 26). All of these factors will play a part in the kind of data elicited.

The dividing line that Rapley draws between interview data-as-resource and interview data-as-topic, is referred to by other theorists as the divide between understanding interviews as *accounts* and interviews as *reports* (Brinkmann 2013: 34-36), or alternatively, seeing interviews as *realist* versus *relativistic* (Josselson 2013: 1-2). These dividing lines are essentially drawn between how the interview should be theorized, and what kind of evidence (or inference) can be drawn from an interview.

There seems to be some agreement across the two camps that interviews are uniquely suited to providing insight into questions of subjectivity, into how informants understand themselves and how they fathom, construct and engage with the world around them. The questions that divide these camps are: can an interview teach the interviewer anything outside the interview situation – can interviews provide evidence about the world outside the interview? Or can an interview only provide information about the interview itself? Does the interviewee use language as a medium, as a tool for the

communication of information, with the information being conveyed being the main evidence collected and analysed by the interviewer? Or is language usage the only thing one can examine and use as evidence from the interview? In short, is the content of what the interviewee said the evidence provided by the interview, or is it how the interviewee speaks, that forms the crux of the data?

Proponents of the second idea, such as Rapeley and Elliot Mishler (1986), who argue that the main analyzable evidence provided by interviews are how informants have phrased their answers, tend to draw heavily on linguistic and semiotic theory, seeing interviews as discursive in the sense meant by Foucault (1972) and Laclau and Mouffe (1985): revealing patterns of language, and therefore, providing the ability to elicit rules deeply internalized by interviewees for the production and articulation of knowledge. As such, Mishler recommends analyzing interviews using a semiotic approach, that breaks down the transcript into narrative units, and is mindful of not only the words spoken during the interview, but also the silences, facial expressions, and any other modes of expressions employed by the informant. Mishler writes: “Taking speech seriously requires investigators to pay close attention to linguistic and paralinguistic features that appear routinely in naturally occurring talk but are routinely omitted from standard written texts...include certain details of speech, such as pauses, non-lexical expressions, and speaker interruptions and overlaps...” (1986: 47).

While many interview theorists assert the importance of including an interview data-as-topic approach to analysis (that is, considering the interview itself analytically, and not simply taking the interviewee’s statements as “evidence” without consideration of circumstances in which these statements have been made), some take a more middle-ground approach and state that this does mean that that the interview can provide no information or evidence about circumstances outside the interview. Wengraf argues, like Rapeley and Mishler, that interviews can provide evidence about language and discourse, but also suggests that interviews can provide evidence or leads about *objective referents* (the issue the

interviewer is exploring with the interviewee, such as Nunavummiut internet in the case of this thesis), and *subjectivity* (2001: 8-9). Subjectivity is generally considered to be a topic that interviews can provide insight into, but where interview data-as-topic and interview data-as-resource differ is in their temporal parameters on the insights into subjectivity that an interview can provide. Some interview data-as-topic adherents argue that the interview provides insight into the interviewee's subjectivity only within the context of the interview (Rapeley 2004) while theorists who believe that there is a possibility of using interviews to gain insight into issues outside the interview, argue that interviews can provide data on the subjectivity of the interviewee more generally – i.e. that one can gain an understanding of how the interviewee understands themselves or sees aspects of their world and life outside the interview (Brinkmann 2013; Wengraf 2001).

Josselson advocates taking a middle-ground approach between the interview data-as-topic and interview data-as-resource approach, which he refers to as the relativist and realist positions. He states that it is necessary to understand and be mindful of the specificities of the interview context but also that interviews can and should try to get at something beyond the experiences of simply the interviewer and interviewee. He argues that the interviewee will tend, overall to respond to questions in ways that are consistent with the general patterns of their lives, and so interviewers, who construct and manage the interviews with reflexivity and rigour, can reach some understanding of interviewees' lives outside the interview (2013: 1-2).

It is this last perspective that I have employed in approaching interviews for this thesis. I was mindful of the ways that the interview is itself a kind of performance, in which the interviewee and interviewer are affected by the environment in which the interview takes place, the kind of rapport between them, the particular moods that might be affecting either and that all these factors might impact the answers given and questions asked when they converse. However, drawing on the ideas of Josselson (2013)

and Wengraf (2001), this thesis project has approached interviews as providing data on both the interview itself, but also on some discourses pertaining to Nunavummiut internet, and the opinions, beliefs and feelings of interviewees in regards to Nunavummiut internet (both within the interview and seeing what has been said as reflecting the interviewees' experiences outside the interview). In short, interviews have been analyzed for what they can say about the subjectivities of informants in relation to Nunavummiut internet, as well as for recurring discourses of Nunavummiut internet articulated by interviewees, with mindfulness of the circumstances of the interviews themselves, and how all these factors might have affected and impacted the articulation of these discourses and subjectivities.

The Power of the Researcher

Crucial to the idea of interview data-as-topic approach is the relationship between the interviewer and interviewee: the interview, in this case, is understood as an event jointly constructed by the interviewer and interviewee. The power dynamic between the two or more parties involved in an interview has therefore been discussed extensively among qualitative researchers.

Implicit in the idea of the research process is the question of the power of the researcher, and scholars have examined the ways in which the interviewer-interviewee relationship is hierarchical, largely because in the cases of most semi-structured interviews, the interviewer comes with the agenda, the question guide, and the power to later represent the interviewee in published work, choosing how to use the interviewee's words for the interviewer's objectives and goals. With the rise of postmodernism and the influence of postcolonialist and feminist theory (Briggs 1983, 1984; Spivak 1988) there has been increased attention to these power differentials, and some researchers have argued for the employment of strategies that could lead to more equality by mitigating the ability of the researcher to take advantage of interviewees, and that could create greater alignment between the goals of the researcher and the interviewees' communities (Michaels 1993; Oakley 1981).

These strategies include following the lead of Latour, who argued that research should strive for the object to talk back, to be “interested, active, disobedient, fully involved” (Latour 1999: 116), creating an environment where the interviewee feels confident to confront and to argue. Some have advocated sending interviewees the interview transcript, to ensure that they feel that they have been properly represented and can contest any statements that are not in keeping with what they believe (if the interviewer can go through a process of thinking and re-thinking their ideas, why should the interviewee only have one chance to articulate their position?) (Laslett and Rapoport 1975; Osherson 1980). Scholars such as Brinkmann (2013) and Kvale (1996) advocate that the researcher should work, during the interview, to ensure that the rapport between interviewer and interviewee is as non-hierarchical as possible. Anthropologists such as Kral and Idlout (2006) have argued for bringing the community into the research from the beginning, for researchers to partner with community members, so that the goals of the research are constructed to be beneficial from the community’s perspective, and so that informants and interviewers come from similar or related backgrounds (so that linguistic and cultural divides are minimized). This perspective, on the importance of attempting to conduct research that is regarded as useful by the community being studied was also argued for by Eric Michaels. In reviewing an ethnography of the Pintupi (an Australian indigenous group) by Fred Myers, Michaels asks whether, from the point of view of the group under study, Myers’ research can be viewed as beneficial. Michaels writes: “I want to insert political evaluations here that ask not just whether the ethnography is ‘helpful’ in some absolute sense, but whether its subjects will regard it as so...” (1993: 127). Michaels was arguing in this case for research that was accountable not just to the academic community but also to the cultures studied, for a study that aimed not only to understand the cultures examined but also to act as a resource on the group’s behalf.

These questions regarding the researcher and power must be addressed here as this research involves an

indigenous people who have historically been subjected to the power of researchers whose research has sometimes resulted in negative consequences for Inuit communities. At times, this has resulted in the advancement of the researcher's career with no benefit for Inuit communities, despite individuals giving their ideas, stories, and time (and in some cases, food and shelter over a period of months) to the researcher.

Researcher Power and Inuit Communities

Kral and Idlout, mentioned above, have worked extensively with the Inuit (Idlout is an Inuk), a group that often feels overstudied. As they write: "Anthropologists who work in North American Aboriginal communities have frequently heard the complaint: "We are being researched to death!" (Kral and Idlout 2006: 56). Some Inuit will refuse to participate in interviews or research projects unless it can be demonstrated, from the start, that the research will be of some direct value, have some benefit, to their communities and their lives (Kral and Idlout 2006: 57). As Jolles notes, Inuit act as sources for academic projects that might help the career of the researcher but these projects frequently have limited positive impact on their lives; they may never see the results of research they have participated in, or they are given reports written in alienating jargon (Jolles 2006: 36).

Issues of power in the research process extend then, to the writing and publishing stage, and research results sometimes produce and reinforce conceptual frameworks that prioritize and normalize Western modes of understanding over the community's orientations towards ontological and epistemological issues. The power of the researcher therefore goes beyond the stage of the researcher's power while collecting data; as Jolles states, researchers are often seen by their readers (academic and non-academic alike) as being "omnipotent, omnipresent, professional observers" (2006: 38) who produce authoritative texts that can define and reify indigenous peoples for their audiences. Lisa Stevenson also discusses the power of researchers in the Arctic. She provides this anecdote:

While I was doing research in Iqaluit a document entitled “Being Inuk Is . . .” circulated via email. One entry stated that “Being Inuk Is . . . reading about your ancestors and relations in an anthropologist’s paper”... (Stevenson 2006: 173).

Stevenson’s anecdote illustrates that research does not exist in a vacuum (and as digitizing academic work becomes the norm, this is increasingly true). So it is worth bearing in mind that even if many social scientists, especially in light of postmodernism’s influence, now recognize their work as producing necessarily partial interpretations, nonetheless, this work still constructs powerful representations for the communities who are the objects of their research.

As the ideas above suggest, issues of reflexivity, interpretation and representation, are important to consider while conducting and writing up research, and they take on added importance when one is studying a community (such as Inuit in Nunavut) who have historically have had relatively little power to represent themselves in academic work. This has meant that at every stage of the research process, I have needed to be critical and questioning of myself and the methods used. I have been attentive to the feedback of Inuit contacts, who in the early stages of this project, provided some insight on what kinds of questions they felt I should be asking; I have asked informants and indigenous friends and family for advice on my comportment. I have also welcomed the process of being granted a research license by the Nunavut Research Institute, which meant that my project, question guide, and informed consent form were reviewed and found to be unobjectionable by community members. I have taken seriously processes of protecting informants, from ensuring that their informed consent was acquired, protecting their identities throughout this thesis (if that was what they requested), and trying to create interview situations where the informants felt comfortable to say that they did not want to answer certain questions (which occurred in two interviews), and in which they could feel free to contradict or argue with any question or assertion I made. Being reflexive has meant being aware of my own emotions and thoughts throughout the research process, and it has entailed being open with my informants about the

goals of my project, what my work could possibly do (present certain discourses about internet in Nunavut, provide some historical background on political processes, examine how internet is seen to work and not work in the territory). It has also meant being blunt about what my research probably cannot do (act as the definitive, authoritative source for all “facts” relating to internet in the territory, and ensure the federal government feels compelled to provide better internet access in the territory).

Conclusion

This chapter provided an overview of how research had been collected for this project, as well as an exploration of the research method most extensively employed for this project: semi-structured interviews. Epistemological as well as ethical issues pertaining to interviews were examined. Further, this chapter gave an explanation of this thesis’ approach to interviews as both data-as-topic and data-as-resource, and explored how ethical and power issues relevant to the researcher-researched relationship were handled throughout this research project. In sum, this project employed semi-structured interviews as well as archival research and to a limited extent, participant-observation, to gather evidence related to discourses and narratives of Nunavummiut internet. Evidence from interviews and archival research was analysed using analytic induction and data-driven coding approaches, where categories were constructed from the data, with the researcher returning to and amending theoretical models and concepts in light of the data gathered.

Part II: Empirical Research

Chapter 4:

“So frustrating”: Nunavummiut Internet User Discourses of Frustration, Planning and Potential

Introduction

This chapter examines several discourses concerning Nunavummiut internet elicited through interviews with Nunavummiut internet users. These narratives illustrate some of the ways that Nunavummiut internet is viewed by some of its users, how they understand and position their experiences of internet, and how they articulate their usages of this internet. This chapter provides evidence for both of this thesis’ main arguments. Firstly, the discourses examined in this chapter provide data for the argument that Nunavummiut internet is often implicated in narratives of frustration. However, in conjunction with being discursively construed as a frustrating obstacle, Nunavummiut internet is sometimes also positioned by its users within narratives of potential. Internet in Nunavut is therefore not only discussed in terms of what its users say it is, but also imagined by those users for what it might be. In analysing these discourses, evidence also emerges to support this thesis’ argument that Nunavummiut internet has multiple facets and defies easy definition. From the perspectives and narratives of interviewees, internet in the territory emerges, by turn, as a communication platform, as an obstacle, as an educational device, and as an imaginary.

The evidence for this chapter is drawn from the research methods employed for this project, from the 61 interviews conducted for this thesis, and to a lesser extent (in this chapter), from archival research. The focus in this chapter is on presenting the voices and viewpoints of informants. These viewpoints and voices have been organized into three discourses which recurred during the research process. These narratives are 1) *Nunavummiut internet as frustration*, which focuses on the ways that users perceive internet in the territory as stymieing; 2) *Nunavummiut internet as necessitating planning*, which examines narratives of how users find ways to use a frustrating Nunavummiut internet to meet their objectives; and 3) *Nunavummiut internet as potential*, which looks at user discourses of how

Nunavummiut internet has already been helpful to communities and individuals in Nunavut, and how with improvements, internet in Nunavut has, from the perspectives of some informants, the potential to positively impact and change the lives of Nunavummiut.

It is worth noting that this chapter, in focusing on user experiences, is quite centred on the “cyberspace” aspects of Nunavummiut internet – on how users experience being online. However, as noted in *Chapter 2: A Review of the Literature*, cyberspace is only one aspect of internet; in the next chapter, *Chapter 5: Fractious Collaborations*, the infrastructural elements of internet are given greater prominence.

Relevant Ideas from the Literature

As discussed during this thesis’ literature review (see *Chapter 2: A Review of the Literature*), this project takes a middle-ground approach between Orlikowski’s (2000) argument that technologies are constituted by the practices of their users and Feenberg’s assertion that users often “carry out the plans of others” (2001: x). Feenberg points to the need to situate usage practices within the plans and actions of the more powerful, who contribute to creating environments and producing devices that to some extent, will act upon users, constructing the boundaries and limits in which users believe they can act. Understanding technologies as constructed by both interactions between the powerful (experts, policy-makers, investors, corporations) and usage practices, this thesis, in attempting to understand how Nunavummiut internet has been constructed, has tried to examine both sides of this equation. In the next chapter, *Chapter 5: Fractious Collaborations*, the focus turns to politics, where the decision-making of the powerful in regards to Nunavummiut internet is examined, providing further context for usage practices and discourses. This chapter, however focuses on users in keeping with Orlikowski’s understanding of usage practices as being fundamental to the construction of technologies. Practices, in this conceptualization (Couldry 2010; Postill 2010) include not only what users “do” with a technology

or medium, but also how users speak about and describe technologies – their discourses of technology. Drawing upon this understanding of technology as constructed, at least in part, by user practices and discourses, the narratives of internet and internet usage in this chapter are therefore provided to shed light on some of what internet *is* in Nunavut, how it is defined through the articulations of its users.

It is worth noting that though the discourses presented here have been structured into three main narratives, there were a range of other responses from informants. The discourses presented here represent recurring narratives that emerged across multiple interviews; however, disagreement with the “consensus”, or opinions not fitting into these discourses are also important evidence, and therefore some statements contradicting prevalent discourses have also been included in the sections below.

The discourses examined in this chapter beyond revealing particular understandings of Nunavummiut internet, also act as an introduction to Nunavummiut internet for readers of this thesis, an introduction largely made in the words of Nunavummiut internet users who describe their experiences. In showcasing how Nunavummiut internet works, how it does not work, and how it is made to work from the perspectives of its users, the chapter also sets the scene for the thesis’ subsequent chapter, which examines the politics of Nunavummiut internet. In exploring the problems, potential and usages of Nunavummiut internet as articulated by its users, some of the motivation behind the campaign to have federal government invest more substantially in Nunavummiut internet is provided; this chapter helps to ground the campaign examined in the subsequent chapter, *Chapter 5: Fractious Collaborations*, within the circumstances and articulations of user experience within the territory.

Background on Internet in the Territory

However, before examining these discourses, a brief background on internet in Nunavut is necessary, so that there is context for the particular frustrations and potential discussed by users. In the next chapter, *Chapter 5: Fractious Collaborations*, a more in-depth exploration of how internet came to be

implemented in Nunavut is presented.

The most commonly purchased internet package in Nunavut costs approximately \$80 (CAD) a month, for which users receive 20 gigabytes of data (Qiniq, “New Internet Packages”, n.d.); for a similar price, a user in Toronto would receive unlimited data (Bell Canada, “Internet Packages”, n.d.). With this \$80 package come advertised speeds of three megabytes per second (Mbps) for downloading, and 512 kilobytes per second (Kbps) for uploading. However, according to speed tests conducted by the Nunavut Broadband Development Corporation (NBDC), a digital technology watchdog in the territory, actual speeds experienced by users, as of 2015, were 1.672 Mbps for downloading, and 397 Kbps for uploading (NBDC, “Projects: Nunavut Broadband Speed Test,” 2015). The NBDC stated on its website that this is “A far cry from the [Southern] Canadian experience: 30.77 Mbps average download speed, 7.46 Mbps average upload speed” (NBDC 2015).

There is also a scarcity of bandwidth in Nunavut, which means that most users have to contend with a monthly bandwidth cap that forces them to be selective in their consumption of online material. Should they exceed their monthly caps, Nunavummiut internet users can either purchase more gigabytes or have their internet slowed down to dial-up speeds for the remainder of the month; speeds are then reset at the beginning of the next month. A research report published in March 2012 summarized issues affecting Nunavummiut internet:

limited speed (e.g. having to take a whole evening to download a five minute YouTube video), latency (the delay between requesting data and the receipt of a response), limited capacity (there is only so much bandwidth available through the satellite at any moment in time and Internet connectivity is priced accordingly), and the higher cost relative to the south ... These ... factors impact how the Internet is ... used by Nunavut residents and to what extent they can incorporate Internet-enabled applications in their day-to-day lives ... (Strategic Networks Group 2012: 5).

In short, and as shall be seen below through the words of Nunavummiut internet users, internet in Nunavut is often experienced as slow, expensive, unreliable and bandwidth-scarce.

Discourses of Nunavummiut Internet as Frustration

Interviewees, when asked about their experiences of Nunavummiut internet, almost universally mentioned experiences of internet failing them (save for in two interviews, where the respondents said they felt that Nunavummiut internet was satisfactory for their needs (Earl, internet user, 2013: Interview; Remi, internet user, 2013: Interview)¹⁴, or acting as an obstacle that generated frustration. Internet in Nunavut was described in 17 interviews as being “slow, unreliable, expensive” (Alicia, internet user, 2013: Interview; Denise, internet user, 2013: Interview; Elaine, internet user, 2013: Interview; Ezra, CAP site coordinator and internet user, 2014: Interview; Freida, internet user, 2013: Interview; Ken, internet user, 2014: Interview; Laura, internet user, 2013: Interview; Liane, former NBDC employee, 2013: Interview; Madeleine, Arctic Fibre representative and internet user, 2014: Interview; Marie, internet user, 2013: Interview; Melanie, Telesat employee, 2013: Interview; Mike, internet user, 2013: Interview; Naima, NBDC employee and internet user, 2013, 2014: Interview; Nancy, internet user, 2014: Interview; Pauline, film-maker and internet user, 2014: Interview; Simon, SSi Micro, 2013: Interview) with two informants adding on “bandwidth-scarce” to their characterizations of Nunavummiut internet (Madeleine 2014: Interview; Naima 2014: Interview). In the paragraphs that follow, an introduction to the issues of Nunavummiut internet are provided, through the narratives of internet users in the territory.

Seven interviewees described Nunavummiut internet as being unreliable, using descriptions such as “always dropping off”, “inconsistent” and “not working from time to time” (Jenny, internet user, 2013: Interview; Ken, 2014: Interview; Marie 2013: Interview; Naima 2013: Interview; Sabrina, internet user, 2013: Interview; Selma, internet user, 2013: Interview). Marie, who works as a nurse in a smaller community in the territory said that one of the main problems she faces in using Nunavummiut internet

¹⁴ In this thesis, when interviewees are *first* cited, their particular “role/position” in relation to Nunavummiut internet is provided; however, in subsequent citations of interviewees, only the name/pseudonym of the interviewee and year of the interview are provided.

is that the internet connection is often lost. As she describes it: “Most times, it’s about 50 percent, you want to open something, and you can’t. It’s very slow. It’ll keep hooking off, losing the connection... I do find that when I do lose access to the internet... it’s not that much fun, because I mean, if there was a blizzard, and I can’t go outside and I can’t talk to anybody, I don’t...like that” (Marie 2013: Interview).

Alicia, another informant, talked about her experiences of Nunavummiut internet in terms of its unreliability but also in terms of its slowness:

It’s very slow. It’s very slow. It’s very expensive...And it’s a pain to get on the internet, and you can still access many websites, but downloading, I don’t go that far, like downloading movies, it’s very difficult. YouTube, you can still manage it, but it takes a long time. I don’t do it, but I know someone has shown me a video, and it took us 10 to 15 minutes just to get a little clip of five minutes. It’s not reliable over all, in general (Alicia 2013: Interview).

Denise, a Nunavut internet user spoken to while she was on a trip to Ottawa, compared the experience of using Southern internet with Nunavummiut internet, saying, in regards to speed: “When I pull up the internet browser, here, it’s instant, there [in Nunavut] it takes a while to go to the main page, to go on Facebook, or to go on Google anything” (Denise 2013: Interview). Selma also discussed speed, saying: “... it’s [internet] very slow, the internet is very slow...but not really reliable...” (Selma 2013: Interview).

Beyond personal use, some Nunavummiut utilize internet for their work. Emilie, who works within advertising and communication, spoke about how the kind of internet available in Nunavut affects her workplace’s ability to hold meetings with those located outside Nunavut. She said: “We can do Skype meetings, but that cuts off all the time...it’s not that great. And just, being remote from everything... you have to plan ahead” (Emilie 2014: Interview).

Coral, who works at an electronics store in Iqaluit, discussed what she saw as activities and services

that could not be successfully attempted through Nunavummiut internet:

So if you're were trying to do voice with video calling, you're going to find it as laggy as heck, because we're bouncing off a satellite, you can't get rid of that lag, so some of the VoIP [Voice over Internet Protocol] products or video conferencing products don't work at all here (Coral 2014: Interview).

On the day that Raina, who works in media production, was interviewed, she had resorted to physical means for her work because the digital routes were not working as hoped:

Like, for example today, I have a report that's quite a large file, and it's urgent, urgent, urgent, it needs to be printed right away. I'm trying to get that file to the client, and usually we use FTPs [File Transfer Protocols] when they're big files so we use up less broadband and she's having huge problems downloading it off the FTP, because internet is slow. So now my assistant has taken off and he's got it on a zip drive and he's going to her office with a zip drive, sometimes we got to do that. It's a fortunate thing, it's a small town so you can get around pretty fast (Raina, internet user, 2014: Interview).

In conversations with Pauline, a film-maker, the particular ways she felt that the kind of internet available in Nunavut had affected her work, was a recurring subject. She spoke at length about how internet in Nunavut has acted as an obstacle for her work making documentaries:

It's [internet issues] in every phase of film-making, right from the very beginning of submitting a funding application. I had situations, I had a deadline to submit a funding application, and I was trying to submit it, even a day early, but we had a blizzard and the internet was out and trying to call up these Southern agencies that may not really know where we are, and say, "The internet is out." And they're like, "Can't you just go to the local library, or go somewhere to send this, do you have any friends near by?" And I'm like: "It's a blizzard in the Arctic, it's life-threatening to leave your house". So sometimes, it's a struggle, from the beginning, from submitting the proposal...

...Then when you're shooting and needing to share footage with your editor, just forget it, you're not going to upload, don't even bother, you have to ship a drive, and with our mail system, something will actually make it South in a few days, but it could also take a month and half, you really don't know... so not being able to share footage over the internet, is so limiting, so frustrating, and people don't understand, when you're working with funders, with broadcasters.

Even post-production facilities...I was in Toronto editing this short drama...The whole week...we were all in the same city and we never ever just brought the footage over on a hard drive, we uploaded it all to each other and it was so nice to be able to do. And I got home [to Nunavut], opened up my email, and it was like: "oh my god, oh my god, so frustrating" (Pauline 2014: Interview).

The cost of internet in the territory was also cited as an issue for usage by several interviewees. Penny, an Inuk who moved south to Ottawa, spoke about her experiences visiting a friend in Nunavut, saying

in regards to internet costs and bandwidth availability: “I just know that my friend that I was staying with...she was saying: ‘don’t watch any videos, don’t download anything, because internet is expensive and we don’t have much available’” (Penny, internet user, 2013: Interview).

Ezra also focused on the expense of internet as an issue, stating:

It’s grossly overpriced. I have NorthwTel at home. I have a 30 gig cap and that’s crazy, I go over, or I approach going over every month and then I have to reel it back in. We’re paying almost \$200 [dollars a month], four times what Southerners pay (Ezra 2014: Interview).

These discourses of frustration and obstruction provide insight into what Nunavummiut internet users find to be problematic about internet in the territory: its unreliability (“cutting out”, not working in inclement weather), its slowness (acting “laggy”, taking 15 minutes to load a five minute video clip), its expense (costing four times what one would pay in the South). It also becomes clear from engaging with these discourses that the problems of Nunavummiut internet are experienced in a range of settings and activities: at work, for artistic purposes, at home, for entertainment, and that users sometimes perceive internet’s issues to impact their ability to do their jobs (Pauline’s issues with internet in every stage of the film-making process, Emilie’s “cut-off” Skype meetings, Raina’s sometime inability to send files via internet to her clients), and their personal lives, emotions and affect (Marie “not liking” when lack of internet access interferes with her ability to communicate).

However, as mentioned in the introduction, there is no universal consensus among users about Nunavummiut internet and how it is experienced. If multiple informants said that they found internet to be frustrating, George offered this statement on internet and frustration which both acknowledged some of the issues of Nunavummiut internet, while also stating that he does not find internet frustrating:

I’m patient, the North teaches you patient. I go out on the land, I hunt, I fish and I camp...in the North, in the Arctic, you have to take it as it comes...So you just roll with it, it's like trying to fly out to different communities or trying to ship stuff, it can get frustrating because of weather, backlog, but there’s nothing you can do about it, it’s out of your hands. So out here, you either accept it and go with

it, or you can get frustrated and upset about it for nothing, because worrying about it is not going to change anything (George, former employee of SSi Micro and internet user, 2014: Interview).

George's perspective, though in the minority within the interviews conducted for this project, is an important one, because it acts as a reminder that there are multiple and sometimes contradictory viewpoints, feelings, and encounters with Nunavummiut internet. While some discourses might be more representative of the larger population's experiences than others, and/or discourses that are more representative of the stated views of interviewees for this project, there is no one single response or experience of internet that can be applied to all Nunavummiut. The range of differences among Nunavummiut, coupled with the complexities of Nunavummiut internet, mean that there will be a range of internet practices, feelings, discourses and narratives.

Nunavummiut Internet as Necessitating Planning

If the above section introduced some of the issues of Nunavummiut internet as experienced by its users (its unreliability, its expense, its slowness, its bandwidth scarcity) and specific examples of how users encounter these difficulties, this section looks at how Nunavummiut describe their ways of making internet in the territory usable, and how they navigate through their experiences of Nunavummiut internet's limitations. The section explores discourses of how some Nunavummiut make internet work as best as it can for themselves, on an everyday basis.

Some Nunavummiut internet users stated during interviews that on a daily basis, they had developed practices to make Nunavummiut internet work for them, and to mitigate its frustrations. These discourses of "filling in" and "compensating" often included discussions about *conservation* and *planning ahead*. Practices of conservation focused on how bandwidth caps in the territory were navigated by users; discourses of planning ahead focused on how users were thoughtful in advance of using internet, figuring out strategies for lessening the import of Nunavummiut internet's issues on

their time.

Bandwidth caps were seen as particularly affecting the ways that users could engage with video, as video tends to use up more bandwidth than other forms of internet usage, such as surfing text-based websites. In our conversation, Madeleine Redfern stated that she and her family make decisions about which videos to watch: there might be several that she would be interested in seeing, but according to Madeleine, in attempts to stay under the usage caps, she will usually make a choice:

Today, I saw on Facebook two different videos that I thought about watching, both of them were news. At first I thought, I'm not going to watch either, because our bill is sometimes so high, but then I decided to just watch one (Madeleine 2014: Interview).

Oana Spinu, of the Nunavut Broadband Corporation, in her presentation to the CRTC in 2016 discussed similar practices to those described by Madeleine, as being prominent among internet users in Nunavut.

She said:

I think you monitor your usage on a regular basis. You see how much of your monthly cap you have used up at a particular point and you know ahead of time before you are going to do something, what is the impact of this going to be on my cap. And households in Nunavut are larger than households in the rest of Canada. So you have more people using even less capacity and especially if you have young children who want to download something on iTunes or they are trying to do their homework. They are not the ones that are going to be thinking about what's the monthly cap. That's for the parents to think about and get the huge bill at the end of the month because of their overages. So I think that there is – it's almost internalized. I don't know how much of it is really conscious and deliberate now because people have dealt with it for so long that I would say you don't even think about doing some things because you just know you can't (Spinu in Review of basic telecommunications services, CRTC 2016 Transcript Vol. 2: 2033-2035).

Carmine, who works for a service provider in Iqaluit, also suggested the ways that a conservationist approach plays into usage of internet, explicitly referring to the practice as “conservation”:

It's almost like, forced conservation. When I bought my house in [19]93, I was on water tank and sewer tank in the house, 250 gallons each, so we had to watch the weather and make sure that if a blizzard hit, we had to conserve our water for a day or two or three...so that same concept applies to the way that internet packages are offered here, you kind of have to watch yourself, you can't just watch a movie on Netflix because your bandwidth will be gone in like a week (Carmine, employee of an internet service provider, 2014: Interview).

Elaine, a Southerner who moved to Nunavut for work three years ago, situated her decision to regularly blog as a bandwidth conservation practice. She said, describing her adjustment to living in Nunavut:

I in particular was really homesick, so we were Skyping often with our loved ones at home [in the South] and that was sucking up a lot of bandwidth. Having the blog and the way to post videos and stuff like that helps because it all kind of does that at once instead of multiply times and that has really curtailed our bandwidth use as well. ...It is a huge bandwidth conservation tactic on our part (Elaine 2013: Interview).

Along with discourses around conservation, in speaking with Nunavummiut internet users, it was also discovered that some see their usage practices involving *planning ahead*, thinking of some of internet's issues and finding ways to lessen these issues' impact on their experiences of internet.

Living with internet that was unreliable, that could not be counted on to work, and which was slow, has led to interviewees coming up with different ways of preparing or planning for online activities. James, who often travels for work, writes his blog articles for the week, and then queues them up if he knows that he is going to be away, because he says that internet availability and reliability can vary from one day to another (James, internet user, 2013: Interview). Laura, who practices photography as a hobby, often waits till she is in the South on vacation before doing any major changes to her photographs, saying: "I can't fix them up here, because...to actually open up the post and upload the photos it takes so much time, it takes hours instead of minutes down South" (Laura 2013: Interview).

For Alicia, her frustration with speed has led her to download or upload files right before she goes to sleep, knowing that in the eight or so hours before she wakes up, the action will usually be completed. She said: "It takes so much time, you can do it overnight and then you wake up and it's done" (Alicia 2013: Interview). Ezra spoke about how when he watches a video on YouTube, to avoid frustration, he lets the video fully load, before pressing play:

I rarely watch YouTube videos because it sucks a lot of bandwidth...and I don't want to go over, because you can buy more gigs, but it's expensive, but if I do watch Youtube videos, I have to be picky,

and it takes a little bit of time to load, I always pause it, I can never play and stream it live (Ezra 2014: Interview).

Kevin said that he negotiates Nunavummiut internet by using his work's internet connection for personal matters:

And then, I like to watch stuff on whatever, and there's so much bandwidth that we can use per month and when we hit it, and I'm also trying to take an online course, so if we reach our limit for the month, then I try to sneak it in at work (Kevin, internet user, 2014: Interview).

It should be noted that these discourses of planning ahead and conservation have their counterpart in the discourses surrounding other internets, particularly those in the Global South (Davison and Cotten 2003; Di Maggio and Hargittai 2001) but also including internet available in Southern Canadian cities. Those streaming a movie or television program, no matter how fast their internet connection or their location, might let their entertainment fully load before beginning to watch, in a manner similar to Ezra before watching a YouTube video. The plethora of information online means that internet users everywhere cannot watch and engage with everything, and must make choices about their viewing and usage – they must to some extent, conserve. However, this thesis argues that what differentiates Nunavummiut internet as well as internets in the Global South from, for example, internet in Southern Canadian urban centres such as Toronto, are the kinds of choices that require preparation and some of the rationale for adopting a “conservationist” approach. Nunavummiut internet users, in their discourses around how they must be selective in the number of online videos they watch, situate their “culling” within a need for conserving bandwidth, and these choices lead their users to argue that they are watching significantly less video than internet users in other areas of the world (Madeleine 2014: Interview; Naima 2013, 2014: Interviews). When discussing planning ahead, the difference is one of scale: internet users in Southern Canada also have to plan when downloading large files, to mitigate time “wasted” waiting; it is the size of files that is the difference. Some users in Nunavut state that they have to “plan” to watch a three minute or 15 minute YouTube video (Alicia 2013: Interview; Elaine

2013: Interview; Ezra 2014: Interview ; Laura 2013: Interview), as opposed to Southern Canadians, who might make plans for a significantly larger file, such as a movie or a television program, but can often stream smaller video files immediately.

The discourses discussed above, of everyday usage tactics such as planning ahead and conservation, speak to the ways that Nunavummiut internet is understood by its users as being imperfect, as being problematic, as having specific issues. Some users understand themselves as responding to these issues by figuring out practices that help to lessen these issues, as not simply accepting Nunavummiut internet's imperfections, but trying to negotiate, and make do with the internet access available as best they can.

Discourses of Potential

As stated in *Chapter 1: Introduction*, for some interviewees, Nunavummiut internet, despite its problematics (and in fact, because of these problems), still has possibilities to improve, to work "better." These include possibilities of what Nunavummiut internet could help Inuit communities and individuals accomplish if it was improved; as well as an understanding of the potential that Nunavummiut internet has in the present, despite its imperfections. Below are some excerpts from interviews with Nunavummiut internet users, which provide some of the representative narratives of potential in which Nunavummiut internet is sometimes implicated in by its users.

A specific example of Nunavummiut internet's potential in the present emerged through conversation with performing artists who work within the territory. The performing arts in Nunavut have faced particular challenges: less funding than film from the Government of Nunavut, and a lack of spaces in which to perform (Jacqueline, internet user and media producer, 2014: Interview). In response to these challenges, a group of performing artists have formed the organization *Qaggiavuut!* which advocates

on behalf of the performing arts in Nunavut. One of the major initiatives undertaken by this group is the website for *Qaggiavuut!*¹⁵, which features a database of performing artists across the territory, who can be searched for by art form and by community. Nancy said, regarding the reasons for creating the website:

We did it initially [created the *Qaggiavuut!* website] to show the rationale for a performing arts centre, show all the performing artists we have who have nowhere to perform and to professionalize them... it's been good for artists to see each other, and that's one of the reasons we wanted to do it, so artists could see who was doing something similar to them (Nancy 2014: Interview).

Nancy stated in our discussion that for artists who might not be able to create a webpage on their own, either because they are not sure how or because they cannot afford internet, the directory offers the chance to have a web presence. She said that the website allows film-makers and producers to find local performers for a production, and that the database on the website acts as ready evidence of just how many performing artists are located in Nunavut (Nancy 2014: Interview) – and therefore substantiates the need for a performing arts venue in the territory. The *Qaggiavuut!* website therefore, suggests that internet in Nunavut has utility and potential in the present, in this case, for facilitating artistic advocacy and collaboration.

Adam also discussed some of the potential that Nunavummiut internet has in the present, by discussing what it has already accomplished, at its current access and service levels. He said:

It already has transformed the North, broadband, I can bank here, because of broadband,...I am able to do it, there is lower level commerce of people selling stuff – country food, parkas, craft – has been enabled by that, you can do e-transfers... (Adam, internet user, 2013: Interview).

Madeleine Redfern discussed both the future potential of internet in Nunavut, if fibre optics were implemented, and commented on how, even though current internet is problematic, it has still greatly benefited Nunavummiut communities:

¹⁵ The *Qaggiavuut!* website is located at: <http://www.qaggiavuut.ca/>.

You're talking big money [to improve internet in the territory by bringing in fibre optics] but in the long run, it'll bring Nunavut into the 21st century in a big way, it'll change a lot of things, and it'll drop the price and increase the capacity, because satellite can't compete with fibre in terms of capacity and cost.

So we're constantly being hampered, not just our ability to have an economy but also production of cultural materials... internet and broadband access and connection means that...if you're Inuk, you can suddenly connect to thousands of other Inuit, and talk about whatever you want, about this week's boat trip. Like my brother's down the bay walrus hunting, when he comes back, he's going to be uploading a bunch of photos and talking to people, because that's what we do. And that's really, cool, like the Nunavut Hunting Stories [a Facebook group], last time I looked, there were over 40,000 members, and there were Inuit, or indigenous people, Northerners, people from South interested in arctic hunting, connecting, it's really cool (Madeleine 2014: Interview).

Beyond noting the uses internet has had in the present, some interviewees discussed internet's potential, if improved, for specific sectors of Nunavummiut life. Wren suggested what she saw as the potential that an improved internet might have for children's education, saying: "It would be helpful for the kids because of the education, if they can go online easily you can learn a lot of educational things, things you don't learn at school to help you with the homework" (Wren, internet user, 2013: Interview).

Mathias, who works at Nunavut Arctic College, discussed both the ways that internet as it is, has been beneficial, as well as the potential a faster connection would have for offering distance education to students in the territory:

Other challenge is internet speed, we can still run an online course, as long as we keep a low bandwidth in mind, we can run them...we had to design course that were low bandwidth ...when you're doing learning management system administration anything online that requires an upload or a download, what should took 30 seconds can sometimes take 5 minutes...that might not seem like a lot, two or three minutes here and there, but at the end of the week, it adds up and it limits productivity. That's the biggest challenge, but it doesn't stop us, we can still work with it, we still get it done and things work in the end...of course, if we had a high speed connection, we would incorporate streaming and synchronous content... (Mathias 2014: Interview).

Elaine also discussed Nunavummiut internet's potential and possibility but focused on the economic sector and her belief that improved communications might have cascading positive effects on the Nunavummiut economy, a belief that echoes ideas found within the ICT4D paradigm and digital divide

literature, discussed within *Chapter 2: A Review of the Literature*:

Coming from our office, where it takes so long for us to do anything using the internet or any sort of technology, it's hard to grow the territory in the way that it wants to grow economically and socially, without reaching par or at least bettering its availability of resources and options up here... [if internet was improved] they can actually survive and profit and grow economically ...moving forward and catching up with the rest of the world would greatly help us (Elaine 2013: Interview).

Vanessa commented on some of the potential that an improved Nunavummiut internet (which for her would be one that was less expensive) could positively impact her familial relationships, and her access to information. She said:

I think about my family a lot, and I would be communicating with them a lot more if I had internet at home. I would be more informed, I would be more able to look for stuff on the internet, and it'd be easier for me to look for a job, and so many things that I'm missing out on because I don't have internet (Vanessa, internet user, 2013: Interview).

The discourses of potential point to three aspects of internet in Nunavut. First of all, the discourses that suggest the ways that internet has already been helpful to the territory, indicate the functionality of Nunavummiut internet for its users. Internet in Nunavut has not only been a frustrating obstacle, but has also been beneficial to some of its users, and is seen by some as having had significant positive consequences. This discourse can be read in several ways: as either refuting some of the discourses of disappointment and frustration, or at least adding in a more "balanced" view of internet in the territory – it suggests that Nunavummiut internet is not only a failure or a disappointment, but has also been a valuable tool for communication, for commerce, and for advocacy in the case of *Qaggiavuut!*.

The second discourse which involves the potential that Nunavummiut internet would have to positively impact the lives of Nunavummiut if it was improved, can be seen as related to the discourses centred around frustration. Seeing its potential is based on users having a sense that there is more that internet could do, that there is a better connection that could be available, and the hopes associated with that better connection which would be less expensive, faster, have more bandwidth and be reliable. This

could, according to these users, have transformative effects on a wide range of activity within Nunavut, including education, personal communication, and the economy.

Finally, a third aspect of these discourses of potential worth noting is that they point to some of the ways that Nunavummiut internet's possibilities are tied to its abilities to facilitate and act as a tool for cultural practices and issues. In Madeleine's discussion of internet's limitations, she remarks on how Inuit in Nunavut are hampered in their ability to produce cultural materials by the frustrations of Nunavummiut internet, while also pointing out that even with its limitations, Nunavummiut internet has been able to act as a space for Nunavut Hunting Stories, a Facebook page that allows Inuit to share their experiences of being out on the land and engaging in a traditional cultural practice (hunting). Moreover, the example of *Qaggiavuut!* also suggests some of the potential that Nunavummiut internet has been seen to have for Inuit cultural practice, by acting as a tool of advocacy for Inuit theatre, music and dance. The examples of Nunavut Hunting Stories and *Qaggiavuut!*, therefore, point to the cultural nature of internet. Nunavummiut internet is used for a number of purposes, but the comments of Madeleine and the example of *Qaggiavuut!* suggest that some particular value is found in the possibilities Nunavummiut internet could provide for Inuit communities, to foster the production of cultural materials, the dissemination of stories about traditional practices and experiences, and to help foster Inuit arts.

Tying this Chapter's Evidence to the Thesis' Overall Concerns

These discourses provide evidence for this thesis' argument that the nature of internet is complex, that what internet is, what it means, can vary, and that internet can hold multiple meanings and be multiple "things" for its users. For users in Nunavut, internet can be associated with experiences of failure and frustration but it is also a source of imagination and a site for hopes. In the case of *Qaggiavuut!*, internet in Nunavut acts as a tool for advocacy and lobbying. According to interviewees, it has been

and could be a catalyst for the Nunavummiut economy; it can play host for workplace meetings; it is a space for banking and personal finance; a means for communicating with family and friends; a forum for sharing stories relating to cultural practices, such as hunting; a facilitator and space for learning and education; a means and place for entertainment and pleasure. In sum, the discourses of Nunavummiut interviewees suggest the breadth of Nunavummiut internet's implication into the lives of its users, its multiple facets and uses. These discourses also show the range of emotions internet can participate in generating, and the spectrum of temporality on which Nunavummiut internet rests which spans from the past to the present and into a future in which there are hopes of a faster, more reliable, less expensive internet.

Nunavummiut Internet and Spatial Issues

Although less prevalent than in discourses employed at the level of politics (to be discussed in the next chapter, *Chapter 5: Fractious Collaborations*), some of the informant statements presented here suggest the ways that spatial questions and issues figure in discussions about internet. Emilie's discussion about how the remoteness of Nunavut necessitates planning and Adam's example of how Nunavummiut internet has meant increased possibilities for banking, are all discourses that connect Nunavummiut internet to spatial issues. In Emilie's example, the remoteness of Nunavut requires labour, and internet, as it is, does not always mitigate remoteness to an extent that would lessen the labour costs of planning. However, in the example provided by Adam, concerning the increased possibilities for banking, internet's potential to mitigate spatial distances, does reveal itself. In this case, electronic banking has made it easier for Nunavummiut, no matter where they live in the territory, to have the capacity to open and operate a bank account, whereas pre-internet, travel to a bricks and mortar bank was required, which meant for many Nunavummiut, that plane travel was required (Financial Services: Banking with Broadband, NBDC, 2006: 7-8). In these examples, Nunavummiut internet, in both its frustrating aspects and its potential, is connected to the roles it might play in regards

to space and distance.

Nunavut, as an Arctic territory, with few transport links to Southern Canada, and only airplane links between its communities, is sometimes identified with the idea of “remoteness.” It is considered, for example, a remote area by the federal government, when it comes to government programs. Internet, like television before it, has been hailed as a “teletechnology” (Wilken 2011), a technology that can bridge distances. And as the example of internet banking demonstrates, Nunavummiut internet has been able to mitigate some of the consequences of having limited physical infrastructure and communities spread out over two million square kilometres. However, the frustrations of Nunavummiut internet – its slowness, its expense, its bandwidth scarcity, its unreliability – means that internet in the territory has, thus far, been limited in its ability to mitigate these issues of remoteness.

These considerations of internet and remoteness lead this discussion towards the ideas of Soja, Innis and Berland discussed within *Chapter 2: A Review of the Literature*. As noted there, Soja is interested in spatial (in)justice: how inequalities and power manifest spatially (2010). Berland, in her discussion of Innis, explores the ways that communications technologies in particular are involved in spatial inequalities, in what Soja would term spatial (in)justices, and what she characterizes as “spatial configurations of power” (2009: 66) – in short, how communications platforms are tied to processes of power and space, imbuing some spaces with more power, and others with comparatively less. Key to this work is the idea of the relation between spaces: spaces have more or less power and privilege in relation to each other, and communications technologies are a factor that can impact the nature of the relations between spaces, making information and knowledge travel more from one space to another and thereby acting as part of the matrix that makes one space more dependent, another more powerful, one less culturally dominant and another more culturally and linguistically dominant, in connection to each other.

An argument can be made that, drawing on the perspectives of its users, Nunavummiut internet's frustrations and limitations (its slowness, its unreliability, its bandwidth scarcity, its expense) contributes to Nunavut's continued construction within the wider Canadian imagination as "remote." For, while there are certain areas such as banking and online education, where Nunavummiut internet has helped mitigate issues caused by vast geographic distances, its ability to do so is hampered by its limitations, which internets available in Southern Canada do not have (or not to the same extent). As a result, the differences between internets' capacities and connections in Southern Canada versus Nunavut, suggest that even as Nunavummiut internet helps to bridge some physical distances within the territory, and between the territory and Southern Canada, by allowing information and files to travel more quickly than if they had to be sent through physical means, the greater efficiency of the internets in Southern Canada means that this mitigation does not help Nunavut "catch up" with Southern Canada, on centre-periphery terms: Nunavut's characterization as remote remains intact. Nunavummiut internet can bridge some distances, but so can the internets in Southern Canada, and they do so more efficiently, meaning that in Southern Canada, internet contributes to bridging distances between spaces that were not "remote" to begin with. One could therefore argue that internet possibly exacerbates the spatial configurations of power between Southern Canada and Nunavut, helping make the transfer of information and communication across distances in Southern Canada even more efficient, while the frustrations of Nunavummiut internet mean that Nunavut remains "remote" in comparison with other areas of Canada that have faster, less expensive, more reliable internets. The relative inequality between the regions may thus be exacerbated, rather than reduced.

It is also important to note that the possibilities and potential envisioned are not the same for everyone: for Madeleine, an improved internet involves fibre (infrastructure); for others, the nature of the infrastructure is not as important as thinking about how it might affect their family life and personal

welfare; for others, an improved internet is one that changes the nature of economic opportunities in Nunavut. Understanding Nunavummiut internet as an imaginary and as potential means grasping that there are multiple imaginaries of internet present in the territory, in the same way that this internet's experiences of frustrations and failures are not necessarily universal, but are felt by users in specific ways, in their specific circumstances. However, despite these differences in vision, the ways in which internet is discussed suggests that it is by no means considered a peripheral issue; instead, internet is linked with the personal (family relationships), the political (the ability to access information), the territory's economic vitality, personal finance, education and cultural practices. The frustrations and potential of internet felt by respondents, therefore, are not negligible; they speak to the idea that internet and its improvement are far from minor issues for Nunavummiut.

Nunavummiut Internet, Potential and the Desire for Parity

Sandvig (2012) is interested in the ways that the indigenous communities have taken the initiative in building their own networks and how their practices can be understood as an "appropriation towards parity"(2012: 191), as discussed within this thesis' literature review (see *Chapter 2: A Review of the Literature*). If Kluitenberg (2011) discusses the imaginaries that media can hold and the mythologies that new media can embody for some users who dream of a more perfect future, interviews with Nunavummiut informants discussed in this chapter suggest, in the same vein as Sandvig, a perspective of internet's potential that instead of being transcendent or fantastical, is more focused on getting what is widely available in urban centres in the Canadian South. The goal and hope for many Nunavummiut in regards to broadband, is still that of an improved internet. In all but one of the interviews I conducted (Earl 2013: Interview), informants stated that they wanted their internet access to be improved, to be faster, less expensive, to have more bandwidth, and for the connection to be more reliable. But many of the ideas around internet potential in Nunavut (having to do with improved connections and access), principally suggest a desire for equality, for parity with internets in Southern Canada. As a result, one

could claim that discourses of potential might also be called *discourses of desired parity*, to draw upon Sandvig's term.

Franklin, in *Digital Dilemmas* (2013), also examines the idea of a potential internet, of possibility in approaching internet through the lens of governance, Franklin's exploration of media as subjunctive has an explicitly political and activist cast. She operates with the understanding that media do change, develop, fail, become tools of oppression and meaning, as a result of numerous factors, including government and supra-government legislation and intervention. For Franklin, therefore, the questions of what media is, specifically of what internet might or could be, are not simply cues for imaginings, but calls to action, calls to those interested in creating an ethical, accessible internet, to figure out ways and means to strive for and create that future. She writes:

The web that people access today...looks and feels very different from the one accessed in the 1990s and early 2000s. Stronger still, more than one internet is being made available to users today....If more than one internet exists, then more than one past, present and future is at stake – a point not lost on authoritarian regimes, one-party states, pluralist liberal democracies; peer-to-peer networks; hacker communities; or those involved in either cyberespionage or criminal activities (Clinton 2010a, b; Deibert 2008; Deibert and Rohozinski 2010; Lovink 2003; Franklin 2010, 2011; Morozov 2011). For this reason alone, the way people access and use the internet, the web particularly, is intensely personal and thereby, political (2013: 15).

As Franklin suggests, internet is “personal and thereby, political” (2013: 15). In this chapter, the focus has been on outlining, in the voices of Nunavummiut internet users, the ways in which internet is experienced as personal; in the next chapter, the focus turns to politics. Further, Franklin's understanding that internet has changed and will change in the future, takes on particular relevance in the next chapter, *Chapter 5: Fractious Collaborations*, which examines how Nunavummiut broadband stakeholders are fighting for the future of their internet. In understanding their internet's possibilities, in approaching their internet as an imaginary, Nunavummiut broadband activists are engaged not only with their internet's current issues, but are motivated by (sometimes differing) visions of what a future Nunavummiut internet could be, and how it might work.

A final point for this chapter: beyond pointing to the association of Nunavummiut internet with feelings of frustration and ideas of potential on the part of some users, examining the discourses of Nunavummiut internet helps one to construct, to use Zielinski's term, "a variantology of media" (2008: 7). By highlighting some user descriptions of Nunavummiut internet, the ways it can be differentiated from other internets emerge, pointing to variety within the category of "internet," and to the possibility of a multiplicity of internets.

When Nunavummiut internet users are asked about Nunavummiut internet and how they use it, and some respond by relaying narratives of how internet frustrates and how they employ tactics to make it useful, they construct and articulate a relationship with Nunavummiut internet that underlines one aspect of this internet's specificity. They define Nunavummiut internet as imperfect, as frustrating and sometimes disappointing, and as having areas for improvement. As stated earlier in this chapter, it is not that other internets are perfect, or that they do not require planning and managing by their users. But the argument here is that what differentiates Nunavummiut internet is the extent to which its users defined it and understood it as necessitating improvement, in their interviews for this project.

These discourses therefore help to situate Nunavummiut internet amidst other internets, at once pointing to Nunavummiut internet's specificity (that these tactics are necessary even for relatively small-scale internet usage) while on the other hand, suggesting the need to consider whether everyday managing tactics are employed by users of technologies and internets that are thought to work fairly optimally (as Akrich and Latour have suggested (1992); see *Chapter 2: A Review of the Literature* for a more fulsome explanation of their ideas of pre/de-description), and if they are, what those practices might involve. Thus, investigating discourses of Nunavummiut internet usage helps to broaden understanding of internet more generally, by adding evidence of how a particular internet has been discursively

constructed by its users, while also pointing to aspects of internet usage (practices of planning and conservation) that might be under-theorized or under-explored in the investigations of more widely used internets, such as the internets in Southern Canada and Western Europe.

Conclusion

This chapter has provided some background on user experiences of Nunavummiut internet, by looking at how users interviewed for this thesis articulate those experiences within several recurring discourses: discourses that position Nunavummiut internet as frustrating, as necessitating “planning” and “conservation” tactics, and as potential and possibility. In understanding how Nunavummiut internet is approached by its users, some of the ways in which that internet is discursively constructed become apparent: as problematic, as slow, expensive and unreliable, as frustrating, as failing, as requiring planning, as necessitating conservation, as an obstacle, as an imaginary and as having possibility and potential.

The next chapter, *Chapter 5: Fractious Collaborations*, shifts from user experiences to the politics of internet; taking the thesis’ perspective from the micro to the macro. The shift in perspective and arena does not however fundamentally change the discourses within which Nunavummiut internet is situated: at both the level of user, as well as at the level of internet politics, Nunavummiut internet is implicated in (and this thesis would argue, partially defined by) discourses of failures and of potential. At both levels, Nunavummiut internet is found to wear multiple faces, to be experienced within multiple arenas, and used for multiple purposes by its users, lobbyists and advocates.

Chapter 5:
Fractional Collaborations: Nunavummiut Internet Advocacy

Introduction

The previous chapter focused on how internet in Nunavut is implicated in discourses of frustration and potential. This chapter, in probing government policy and advocacy tactics of Northern broadband stakeholders, examines narratives concerning the history of Nunavummiut internet which attempt to explain why Nunavummiut internet has the issues it has, as well as different visions and ideas of how it could be improved. In short, the chapter presents, from the perspectives of informants working within Nunavummiut internet politics, discourses for why Nunavummiut internet is frustrating, while also examining discourses that focus in particular, on the potential for Nunavummiut internet itself to be improved. The focus on potential therefore, in this chapter, centers on the potential of Nunavummiut internet to be less expensive, more reliable, faster, and less bandwidth-scarce. In particular, this chapter examines how some activists and lobbyists have collaborated to argue for further federal investment in Nunavummiut internet and for internet to be declared a basic service by the CRTC, as the main ways that Nunavummiut internet's potential could be tapped into and furthered.

In examining historical and political narratives of Nunavummiut internet, this chapter adds evidence to the thesis' argument, that the nature of Nunavummiut internet is complex and multiple. Adding to the facets of Nunavummiut internet that emerged in the previous chapter on user discourses, this chapter argues that in the context of historical and political narratives, Nunavummiut internet can be seen as a physical infrastructure, as an object of politics and governance and as a reason for political action.

In terms of structure, the chapter begins with a brief introduction to the history of Nunavut, then explores narratives of how Nunavummiut internet became available in the territory. It ends with examining how some lobbyists and advocates of Northern broadband have collaborated in employing

specific discourses to sway the federal government's position on investment in internet, despite these advocates and lobbyists often having significantly different agendas and beliefs about how Nunavummiut internet's potential could be optimized.

Historical Narratives Concerning Nunavut

The area now known as Nunavut is vast, and the histories of peoples in these regions are lengthy and varied. What is found below when discussing the history of Nunavut will do little justice to the full multiplicities of these narratives and histories, or the many differing experiences of Inuit groups and communities across Nunavut. Instead, its more limited undertaking is to briefly examine threads from these narratives, drawn mostly from the twentieth century, that are helpful for contextualizing the story of Nunavummiut internet.

In terms of its existence as a political entity, Nunavut is fairly young, being officially separated from the Northwest Territories and established on April 1, 1999. But the land and the peoples who reside in the area have a much longer history with each other. Archaeologists and historians believe that Inuit communities¹⁶ have been living in what is now called Canada for millennia (Wolfson 2001: 6). Below, the focus will be on experiences after contact with Europeans, as these are most relevant for this particular study.

The period of interaction between Inuit and Europeans before the Cold War, ranging from the eighteenth century to the mid-1940s, has been called by Damas and Helm the "contact-traditional" period (1963). This, according to their definition, was a period in which many Inuit cultural practices endured but some communities were increasingly influenced by European beliefs and practices, particularly through interactions with whalers, missionaries, police officers and the Hudson's Bay

¹⁶ The ancestors of contemporary Inuit (Thule peoples) are thought to have begun moving into the Eastern Arctic around the year 1000. Prior to their arrival, pre-Dorset and Dorset peoples are thought to have inhabited what is now Nunavut (Duffy 1988: xv-xvi).

Company (Damas and Helms 1963). The police, specifically the North-West Mounted Police (later known as the Royal Canadian Mounted Police) played an important role during the contact-traditional period, acting as the face of government (Matthiasson 1992: 42). Because they were covering a fairly dispersed population, these officers did not maintain a sustained presence in the lives of many Inuit during this period, but they provided Inuit communities with some of their first interactions with Western governance.

Canada was granted its independence from Britain in 1867, but policies regarding the North remained largely unchanged until the end of the Second World War and the beginning of the Cold War in the late 1940s. With the Soviet Union as an enemy, the Arctic, which had primarily been seen as a source of potential riches and as a vast territory that was difficult to reach, became a cog in the machine of continental security and national sovereignty. The Arctic, it was suggested, was where the Soviet Union would likely begin its attack on North America (Tester 2006: 234). Concerns were also raised about the health care and education available to Inuit communities, about the need to assert Canadian sovereignty through administration of the region, and the necessity of gaining more substantive knowledge of the North's resources (Duffy 1988: 17). The 1939 Supreme Court ruling that Inuit were, in effect "Indians", also created a legal mandate for the greater involvement of federal government in ensuring the safety, health and well-being of Inuit in Canada (Tester and Kulchyski 1994: 35).

As a consequence, commencing in the 1940s, the Canadian government paid more attention to the Northwest Territories (the area from which Nunavut was to later separate): building military bases and having Inuit operate them; building schools and mandating that Inuit children must attend them. A policy of settlement was urged, as the Canadian government set about building housing infrastructure, and most Inuit settled into permanent communities during this time (Duffy 1988: 22-29). Damas has argued, in *Arctic Migrants/Arctic Villagers* (2002) that the process of Inuit moving from dispersed

camps to centralized settlements was nowhere near instantaneous, that the federal government initially supported the idea of dispersed settlements, but that over time, issues pertaining to education, housing and health brought about policy changes which led to permanent settlements, and that Inuit for the most part, voluntarily chose to live in permanent settlements. Within the first thirty years of settlement, many Inuit became more reliant on government assistance, as there were few industries or employment opportunities in the North¹⁷ (Inuit and Europeans, Inuit Tapiriit Kanatami, n.d), and as Tester and Kulchyski argue in *Kiumajut (Talking Back)* 2008), as policy changes spearheaded by the federal government regulated and curtailed the ability of Inuit to hunt.

The post-war period, in short, was one of great transition, and some of the issues facing Northern communities today, such as low graduation rates and substance abuse issues, are often attributed to the cultural policies enforced by the federal government during these years. Summing up their thoughts on the federal government's welfare policies directed at Inuit in the Eastern Arctic (1994), Tester and Kulchyski have said that government policies during this period, which did not consider the specific cultural needs of Inuit, created new issues for Inuit communities to resist and struggle against:

The postwar history of the eastern Arctic not only suggests that absolute and universal approaches to the assessment of human needs are suspect, it highlights the dangers of failing to seek, and to recognize as legitimate, self-definition in the articulation of those needs. The attempted totalization of Inuit society by the Canadian state produced not only serious problems for Inuit communities, but new and ongoing forms of struggle (1994: 361).

Inuit Activism and the Creation of Nunavut

In the 1970s and 1980s, a new generation of Inuit activists emerged¹⁸, concerned about negotiating their rights in terms of land, cultural practice and natural resources. In 1971, the Inuit Tapirisat of Canada

¹⁷ Hunting continues to be economically and socially significant for Inuit communities. Settlement has meant that there were more people hunting within a particular region, so hunters might have to travel longer distances for a successful hunt. As well, tools associated with hunting (snowmobiles, guns, fuel) now require money; in this way, subsistence practices have become implicated within a hybrid formal/informal economy (Nuttall 1992: 26).

¹⁸ Many of the Inuit activists and leaders associated with land claims activism, attended residential schools (Truth and Reconciliation Commission of Canada 2015: 4).

(ITC), which would later become the Inuit Tapiriit Kanatami (ITK), was established to act an Inuit advocacy group, lobbying federal government on issues having to do with self-determination and land rights (McPherson 2003: 60-61).

In 1976, in recognition of the fact that Inuit communities never signed any documents handing over land to the British, the ITC proposed the creation of Nunavut as a territory. By 1992, sixteen years after the ITC's original land claims proposal, the Canadian government and Inuit negotiators were able to reach a land claims agreement that included the establishment of Nunavut. In November 1993, *The Nunavut Act* and *The Nunavut Land Claims Agreement Act* were passed by the Canadian Parliament. And on April 1, 1999, the territory of Nunavut was established (Hicks and G. White 2000: 30-115).

However, the federal government continues to retain much power over the territory, as Graham White has noted:

In no other jurisdiction [in Canada]...does the influence of the federal government loom so large...not only does the Nunavut government depend almost entirely on the federal government for its finances, but Ottawa retains various powers that "South of 60"¹⁹ fall under provincial jurisdiction, most notably over Crown land and non-renewable resources. Simply put, the federal government remains a powerful player in Nunavut (G. White 2009: 59).

Bringing Internet to Nunavut

Taking into account some of these historical narratives, particularly concerning relations between some Inuit communities and the federal government, the thesis now considers the processes by which internet was made available in the territory.

The story of internet in Nunavut begins with television. Television was first introduced in the Canadian North in 1967, primarily on the Western side of the Arctic, almost twenty years after the first Southern Canadians had started to receive television signals emanating from the United States. Particular factors occurring well outside the Canadian Arctic resulted in the creation of Telesat, a domestic Canadian

¹⁹ The 60th parallel North, as a circle of latitude, in Canada marks the boundary between Northern Canada and Southern Canada.

satellite company, and the launch of the Anik A satellite in 1973. These would provide access to satellite television, and later internet, for Northerners who could afford the necessary devices (a television, and later with internet, a computer and now, a mobile phone) and could pay the subscription fees.

Howard Fremeth (2003) has explored how *The Telesat Act* of 1969 came to be passed by Canadian Parliament. Fremeth suggests that much of the 1960s Liberal government rhetoric on the need for a domestic satellite service focused on the duty to provide Northerners with mass communications, education and tele-health. But there were other political motivations in play (2003: 90). These motivations included not wanting to be completely left out of the space race that the United States and the Union of Soviet Socialist Republics (USSR) were competing in; bridging the “technology gap” that was widening between Canada and the United States; wanting to articulate more forcefully Canada’s sovereignty and independence from the United States; and wanting to boost the prospects of Southern-based Canadian companies working in aeronautics and communications (2003: 83-84). It was these pressures, primarily of an economic and political nature, Fremeth argues, that led to the passing of Bill C-184 in 1969. This bill, known as *The Telesat Act*, mandated the creation of a Canadian satellite telecommunications corporation (2003: 74). Roth has argued that Inuit communities’ understanding that the satellites could act as a means for their cultural assimilation led to their “active participation as media producers” (2005: 16) – to their determining ways to argue for their access to media tools, and actively working to alter media policy.

A report entitled “Man in the North”, published in 1971, a year before the launch of the first Anik satellite, focused on public consultations with some Inuit leaders about the satellite. The report stated:

In spite of promises of great social benefits for the North, the use of Anik [the satellite]...would fail to provide communications for the people’s needs...Indeed, the original reasons given by the Government of Canada...were shown to be in need of re-evaluation (Kenney 1972: 1).

Ignoring these concerns, the satellite launched. In 1973, Telesat launched the Anik A satellite, which transmitted telephone, radio and television services to Northern Canadian communities. Two experimental satellites programs were dispatched by Telesat in 1976, and in 1978, the Anik B was launched to connect six communities, and form a television network. Various Inuit leaders had expressed concerns about the launch of the satellites with officials working on the “Man in the North” report. But once the satellites were in place and a barrage of Southern Canadian content became available to Inuit communities, the concern shifted from fighting the presence of satellite television to advocating to ensure that Inuit television content, content created by Inuit for an Inuit audience, was aired (McMahon 2013: 98; J. White 2005).

In 1974, the CRTC²⁰, a public agency that is mandated with regulating broadcasting in Canada, held a hearing to investigate complaints from Northerners about television services. Various Northern activists articulated their frustrations over the ways they felt the Canadian government and Telesat had used the North to justify the satellite’s existence, as opposed to being attentive to the concerns of Northerners themselves (Akesoo & MacNeil 1974: Section 2). They urged the CRTC to consider how Anik could be used to support Inuit culture. Their suggestions included funding and facilitating the production of more Inuktitut programs; they also suggested that Anik could be used to transmit Northern content to Southern Canada (Fremeth 2003: 108).

In 1978, the Department of Communications (a now defunct federal department which the CRTC supervised and which oversaw telephone, radio, and television in Canada) provided over a million dollars for Project Inukshuk. This project was overseen by the ITC, and its “purpose was to train Inuit film and video producers, to establish Inuit production centres in the North and to conduct interactive

²⁰ The agency was called the Canadian Radio and Television Commission but it would later be re-named the Canadian Radio-Television and Telecommunications Commission.

audio/visual experiments...” (Roth 2005: 118). As a result of years of campaigning by various Inuit and Northern groups, and the results of experimental initiatives such as Project Inukshuk, the ITC was able to make a case for the need for Inuit communities to have the resources to produce programming for themselves. In 1981, the CRTC issued a license for an Inuit television network, the Inuit Broadcasting Corporation (IBC), which produces Inuit news and entertainment television programs (Roth 2014).

Lorna Roth, in *Something New in the Air* (2005), provides a comprehensive history of Inuit and Aboriginal media activism, particularly regarding television and the creation of both the IBC and the Aboriginal Peoples Television Network (APTN). Roth has posited that advocacy for media networks has an influence wider than the media itself. Writing about some of the outcomes of Inuit (and other First Peoples) media activism, Roth said:

...First Peoples broadcasting lobbies have ...had an impact on the formation of new mediating structures in Canada, such as policy frameworks, a new broadcasting channel (Aboriginal Peoples Television Network (APTN)), more open access arrangements with existing channels, funding programs, and technological infrastructures... Their use of television in this way sets up grounding and motivating assumptions and beliefs about its relationship to other institutional and political realities – to change, to learning, to the struggle for national identity, and to a particular notion of empowerment and rationality vis-a-vis social action (2005: 9).

Employing Roth’s perspective, Aboriginal media, in this case, Inuit media, is not a negligible or a second-tier issue for various sectors of Inuit communities (a point made by informants, that was discussed in the previous chapter, *Chapter 4: “So frustrating”*). With this view, advocating for access to media platforms, such as those associated with internet, can be understood as fighting for access to tools that facilitate First Peoples’ engagement with political, social and cultural issues that are significant to their communities. These political engagements for autonomy and access to media tools speak to the cultural power of media, or at least to the ways that media have been understood by various Inuit communities as having significant cultural affordances, for offering possibilities and potential for supporting and sustaining cultural and linguistic practices. As shall be seen below,

Nunavummiut internet is tied to television through infrastructure: much of the infrastructure (the satellites) that provide television is used to provide internet in the North. But internet is also tied to television in terms of its advocacy, because for both television and internet, Inuit media activists have had to advocate for access. Regarding television, the issue of access had to do with content and platforms – having access to media tools so that there was Inuit television content, in Inuktitut, available to Inuit audiences. When it comes to internet, the current battle is for access to be improved so that the territory’s residents can take greater advantage, both through their production and consumption, of the range of possibilities offered by internet in various sectors.

The Early Days of the Campaign for Internet

In the early 1990s, a decade after IBC’s launch, when details about Nunavut’s establishment were still being negotiated, internet was becoming more popular and widespread in Southern cities. There was the realization, according to informants who had been involved in campaigning and working with the IBC, of the necessity of bringing internet to the North. Those who participated in the IBC believed that media (radio, television and now internet) could be a major benefit for Inuit communities, particularly in connecting the communities to each other. According to Liane, an informant who worked with the IBC and has long been involved in campaigns to bring internet and improved internet access to Nunavut, conversations about internet, and bringing it to Nunavut, began as early as 1992. As she describes some of the early efforts:

I was sick thinking of the huge potential benefit for people living in remote communities to share cultural knowledge, between communities in the Arctic... This was already a strong network of broadcasters that worked together on getting a television network. So I said to them, “Let’s have a conference on connecting the North.” So they launched this Connecting the North conference in 1994...

I also have the original document from negotiations over land claims, about getting communications on the table, to get Inuit to have control over communications infrastructure, because they knew that communications would be critical to self-determination. But the federal government said “we only deal with land and critters, we don’t deal with communications” (Liane 2013: Interview).

As Liane describes, Northern and Inuit leaders wanted to have some plan or funding in place for

communications infrastructure before Nunavut was established in 1999, and tried to bring these demands into the land claim negotiations regarding Nunavut, only to be told by the federal government that it was not for discussion at those talks. Later in this chapter, when the focus shifts to broadband advocacy efforts, the report that emerged from the Connecting the North Conference mentioned by Liane, will be discussed.

By 1999, the situation had altered. It was not just that Nunavut now officially existed as a territory, a separate entity from the Northwest Territories. It was also that internet and its importance in business, education, and communication had altered. Internet had become an intrinsic part of the daily life and work of many individuals, businesses and governments, particularly within North America and Western Europe (Castells 2010).

By 1999, broadband internet was accessible to most Southern Canadians. Providing broadband in Southern Canada was fairly cost-effective for telecommunications companies. They could use infrastructure such as cables that were often already in place for television and telephone service. It was only in areas such as Nunavut, where there is limited infrastructure in place and a limited business case to be made, and where even if there was demand for broadband, small, widely-spread out populations meant that there could never be enough demand for companies to want to invest in developing the infrastructure for internet, that access to broadband remained problematic. In a few communities in Nunavut, dial-up was a possibility by 2002, but it tended to be quite costly and slow. Dial-up was provided in the late 1990s and early 2000s by independent service providers, such as Nunanet in Iqaluit (founded in 1995), Polarnet in Cambridge Bay and Sanny Internet in Sanikiluaq (Itorcheak 2012). As described by Jim Bell of *Nunatsiaq News*:

Of Nunavut's 26 communities, only residents of Iqaluit, Rankin Inlet, Baker Lake and the five

communities of the Kitikmeot enjoy access to dial-up Internet access. In the 10 communities outside Iqaluit with decentralized Nunavut government functions, government employees put up with a primitive form of satellite access that's so slow it's sometimes unusable. For private users in most of those communities, there's nothing, except for expensive long-distance modem calls to Southern Internet service providers. In the year 2002, this is unacceptable (Bell 2002).

In 2001, a year before Bell's article was published, the Nunavut Broadband Development Task Force had been created, with the project of assessing and advising the territorial Government of Nunavut on how to best bring broadband internet to Nunavut. There had already been a federal broadband task force that issued a report in June 2001, recommending that a \$4 billion (CAD) investment was necessary to bring broadband to all areas of the country (Bell 2002). However, even with this recommendation, the federal government's annual fiscal budget for that year allocated no funds for broadband programs. Some background on the development of Canadian media policy might provide some insight into the delays in funding for internet in Nunavut (and other rural and remote areas in Canada), and why advocating for greater investment in internet continues to be an issue that Northern broadband advocates must argue for.

Background on Canadian Media Policy

Those studying Canadian communications history tend to divide the modern period into two eras: the monopoly era and the deregulation era. The monopoly era extended from 1906 until 1993, when the government's main focus was ensuring the provision of services, particularly telephone service, to all Canadians. The safety of a monopoly was encouraged so that companies, using subsidies from the federal government, could provide services to Canadians living in remote and rural areas without having to worry about losing money or competing for market share (Sinclair, Intven and Tremblay 2006). However, as Rideout describes (2003), the 1970s and 1980s brought with them a turn towards neo-liberalism and deregulation. In the midst of an economic downturn, telecommunications corporations (both Canadian and American) lobbied the federal government on the advantages of an

increasingly deregulated telecommunications landscape. They argued that both customers and the Canadian economy would benefit from lessened government involvement and competition (Rideout 2003: 59-83). While the process of deregulation in Canada began in the 1970s, 1993 saw its culmination in the area of communications with *The Telecommunications Act*. *The Telecommunications Act* specifically mandates a deregulated and more competitive telecommunications environment for Canada; federal telecommunications policy introduced subsequent to the Act must demonstrate that it is pursuing its aims (2003: 165). Rideout refers to this process as *neo-regulation*, writing:

...a more appropriate term is neo-regulation. This is where the state replaces regulation that was previously based on the public interest and on service, affordability, and universality with market regulation (2003: 64-65).

This turn towards neo-regulation in Canada coincided with similar movements in telecommunications and broader economic policy in the United Kingdom and the United States (Schiller 2011). It also set the stage for some of Nunavut's persistent telecommunications challenges, in this case, around internet. Policies prioritizing lessened regulation and competition, while perhaps workable for more urban environments, are problematic for Nunavut. With its large geographic area, Arctic climate and fairly dispersed population, there is little business case to be made for investing in Nunavummiut internet. It is difficult for most companies to turn a profit in the territory and none of the major telecommunications businesses can operate entirely on their own in the territory. Most depend on government subsidies (ACIA 2011: 36-37; Strategic Networks Group 2012: 4).

How *The Telecommunications Act* is interpreted, to some degree, depends on the politics of the party in power at the federal level; the Liberals, in power from 1993 to 2005, while pursuing the aims of the Act, were open to a certain degree of investment in internet in the North, a degree that was more significant than their successors in office, the federal Conservatives. It was the Liberals who allocated much of the funding necessary for broadband internet to be implemented in Nunavut in the early 2000s.

Broadband Receives Federal Funding

In 2002, Industry Canada²¹, the federal department concerned with investment and industry innovation, announced funding of \$105 million (CAD) for the Broadband for Rural and Northern Development (BRAND) program²², a program whose funding Nunavummiut communities would be eligible for. The federal Department of Aboriginal Affairs²³ then provided the Government of Nunavut with the money to create an in-depth business plan (Building of Qiniq Network, NBDC, n.d.) that explored how broadband could feasibly be brought to the territory, using funds provided by BRAND and other programs. Drawing on their findings from 2001, the Nunavut Broadband Development Task Force developed a plan.

Then came the task of seeking out funding to put the plan into action. The federal government, particularly through the BRAND program, was going to be the main source of funding, but what was less clear to those working on the Nunavut Broadband Task Force at the time (a mix of civil servants and community leaders) was who in Nunavut could apply for the federal money.

The federal Liberal government of the early 2000s had a policy of not giving money to telecommunications corporations or to territorial or municipal governments for broadband. That meant that the territorial Government of Nunavut and its departments could not apply directly for broadband funding and neither could NorthwesTel, the main telecommunications company operating in the North during that period. The Liberals preferred to give money to community-based organizations (community “champions”), who could request funding. These community organizations in turn, would select vendors and private companies to do the work of installing infrastructure and providing services (Jeremy 2013: Interview). The logic underlying this model was that community members not directly

²¹ This department is now known as Innovation, Science and Economic Development Canada.

²² As mentioned above, a federal task force had said in 2001 that \$4 billion was necessary to bring broadband to all areas.

²³ The department is now known as Indigenous and Northern Affairs.

tied to any specific corporate interests or politics were best equipped to know and prioritize the specific needs of a region. But in many of the communities that were seeking broadband funding from BRAND, there was no community champion already in place and operating. For the most part, these community organizations had to be created because of this federal policy.

While this model had its potential benefits, in Nunavut the task of figuring out how to create an organization that fit the federal government’s description of a community champion was a major task unto itself. For the purposes of applying for BRAND funding, Nunavut presented itself to Industry Canada as one community, with one community champion representing the territory: the Nunavut Broadband Development Corporation (NBDC). Jeremy, who worked closely with the NBDC during its early years, said that federal government policy regarding community champions resulted in the creation of a corporation with a rather awkward, somewhat onerous structure. In an interview, Jeremy described the complicated structure of the NBDC:

So essentially, we had to create [something] to fit the rules of the federal government. And because we were in Nunavut, we had to create it in a way that qualified it as an Inuit organization as well. The community organization that the federal government gave money to had to be a federal, Canada-wide, not for profit corporation – that’s the only way that they would accept the community organization. To qualify as an Inuit organization, you had to be a for-profit shared company that was 51 per cent owned by Inuit land claims beneficiaries. We had to create this cumbersome organization...²⁴

So that was as complicated as anything, because we didn’t understand all the rules to start with, so as we applied for money, program by program, they would say, “oh you don’t qualify” because of whatever. And then we’d have to go back and talk to the lawyers, and figure out some strange way of getting around it (Jeremy 2013: Interview).

Once the NBDC was developed, in 2003, it was able to submit its business plan to the federal government and issue a Request for Proposals from companies who could implement broadband connectivity for all of the territory’s communities. Two corporate bids were submitted: one from

²⁴ Jeremy provided further details about how the NBDC is structured: “So the not-for-profit corporation is controlled by Inuit beneficiaries. It in turn owns a company called NBDC Inc., and because it’s owned by a parent company that has more than 51 per cent Inuit beneficiaries, it can be classified as an Inuit corporation. But that company didn’t qualify for some other reason for grants from Indian affairs and CanNor [federal departments]. So we had to create a third company, it’s called Qiniq Inc. So we have this weird structure all because of these programs” (Jeremy 2013: Interview).

Northwestel, who have long been the largest telecommunications company operating in the North, and another from SSi Micro, a company based out of Whitehorse in the Yukon territory. The NBDC selected SSi Micro's bid, stating that they were choosing the bid that would be least costly (Building of Qiniq Network, NBDC, n.d.).

SSi Micro proposed to build a network that would provide broadband to Nunavummiut communities via Telesat's Anik F2 satellite dish, which at the time provided long-distance telephone services to Nunavummiut and, as discussed above, most television channels. Using satellite was the most viable and cost-effective way to provide broadband internet to Nunavummiut because of a relative lack of other infrastructure, particularly transport and communications infrastructure, in the territory. SSi's technology did not require any antennae or the laying down of cables. The Qiniq²⁵ network that SSi built works wirelessly, through portable modems. The network was launched in 2005. It cost approximately \$10 million to build Qiniq, with funding coming from various federal government departments (Building of Qiniq Network, NBDC, n.d.).

Building the Qiniq network in Nunavut provided its own challenges, some of them coming directly from having to deal with the red tape surrounding government funding, as well as the climactic conditions in the Arctic. As Jeremy describes it:

The whole thing was a scheduling problem because to build things in the Arctic, you have to have your materials on the ship in either Vancouver or Montreal, by June 15th ... satellite dishes, steel, communication shelters that you're going to put the equipment in, the equipment itself, some of it is very expensive to fly in, television caddies you can't fly in, satellite dishes are too big to fly in. So you had to do all that [by ship]. But the various funding programs, they pay no attention to that.

So we had to convince the vendor, SSi Micro, to put stuff on the boat and have it on its way to the Arctic before we even had contracts for funding. And then the funders, the federal government and Industry Canada said we had to complete the entire project in a single construction season, which was phenomenally difficult in 25 Arctic communities. No one's ever done anything like that before. We managed to achieve that, but it was a very, very expensive requirement and it really had nothing to do

²⁵ Qiniq means "to search" in Inuktitut.

with anything except that they wanted to spend the money in a specific fiscal year. (Jeremy 2013: Interview).

After Broadband Becomes Available

The Qiniq broadband network was built with projections that it would garner 2000 household subscriptions within Nunavut, with the government funding provided projected to last for nine years. However, instead of 2000 subscribers over nine years, there were 2000 subscribers within nine months (Infrastructure II, NBDC, n.d.). By 2008, three years after Qiniq had been established, the number of subscribers had doubled: 4000 subscribers using an internet backbone created for half their number. This particular issue prompted the NBDC to launch a project entitled Infrastructure II in 2008, which is estimated to cost approximately \$45 (CAD) million and aimed to expand broadband services in the territory. The federal government pledged \$21,601,175 (CAD) through its National Satellite Initiative (NSI), with the rest of the funds covered by the NBDC, SSi Micro and other partners.

As stated above, broadband internet is provided via satellite, largely because in a territory with relatively little physical infrastructure and where extending that infrastructure would be prohibitively expensive, the satellites were already in place. Satellite is the main means for providing internet in areas on the less privileged side of the digital divide, because satellite is the “best” infrastructure for the provision of media technologies in places where physical infrastructures such as roads and telephone cables have not been built. In this way, the federal government’s historical lack of investment in infrastructure in the North, coupled with its investment in satellites in the 1970s, can be connected to the current provision of internet in Nunavut, and subsequently, the kind of internet available in the territory. Satellite was also selected as the means to provide internet because of how dispersed the territory’s population is: satellite’s ability to beam signals over large areas made it “a fit” for Nunavut’s particular needs. Satellite, though, is not a popular technology in the territory. As one government

informant noted: “it’s the worst option” (Michael, Canadian Northern Economic Development Agency employee, 2013: Interview), largely because it is associated with a number of problems that do not seem to affect cable or microwave internet users to the same extent, and these issues are exacerbated by circumstances specific to Nunavut.

Satellite’s Issues

Satellite, as a space-based technology, is expensive. The Qiniq network purchases satellite capacity from the company Telesat, from which it provides internet access to its subscribers. The problem, as mentioned above, is that this capacity, though expensive, is not adequate for the amount of internet subscribers in Nunavut. Even with the expansion of the number of subscribers, the fees subscribers pay for their internet services has not made it possible for SSi Micro (the company that operates Qiniq) to purchase substantially more bandwidth.

As discussed in the previous chapter (*Chapter 4: “So frustrating”*), Nunavut internet subscribers pay more for their monthly home internet packages than Southern Canadians do,²⁶ but the actual cost of providing internet still exceeds what is collected via the monthly consumer fees, and must be subsidized by the federal government (Bell 2012). Qiniq has little hope of turning a profit without these government subsidies, and there are many residents of Nunavut who, because of the high cost of internet and computers, have limited access to internet on their home computers as a result (however, the increased popularity of mobile phones has meant that residents who have smartphones can gain access to internet when in an area that has wi-fi).

Having a growing number of Nunavummiut users crammed onto an insufficient amount of bandwidth creates a situation where there is a great deal of “traffic” on the available bandwidth, and this slows

²⁶ The most commonly purchased internet package in Nunavut costs \$80 a month. With that, the user gets a 20 gigabyte usage cap. As a point of comparison, in Ontario, for that same price, a user would get 250 gigabytes (New Internet Plans, *Qiniq*, n.d.; Bell Internet Packages, *Bell Canada*, n.d.).

down download and upload speeds (Alicia 2013: Interview; Elaine 2013: Interview; Laura 2013: Interview). The lack of sufficient bandwidth also means that most users have a monthly bandwidth usage cap – they can only use a particular amount of bandwidth per month. As noted earlier, once they have reached their caps for the month, Qiniq²⁷ slows users’ internet access down to dial-up speeds; their internet is then re-set at broadband speeds at the beginning of the next month. These issues make it difficult to use internet for numerous things, but particularly make using video challenging, because video takes up a larger amount of bandwidth versus text-based sites. So users in Nunavut, as discussed in *Chapter 4: “So frustrating”*, often have to be thoughtful about what they click on and watch (to not exceed bandwidth caps). And when they do choose to watch a video or look at a site, it can take a long time to load (because of the bandwidth “traffic” jam).

Finally, if satellite is slower and more costly internet, another problem with it is that it is seen as unreliable. To be sure, this is a description that some have disagreed with (Strategic Networks Group 2012). But many of those interviewed for this project say that there are times when their access to Nunavummiut internet will just not be there. Beyond planned black outs, they are never completely sure if their internet will be working, or if it will go down, or just work for a few minutes, here and there (Alicia 2013: Interview; Laura 2013: Interview; Marie 2013: Interview).

In *Chapter 2: A Review of the Literature*, the ideas of Latour on actants were briefly discussed: that when conceptualizing social relations, non-human actors need to be factored in, because they, to some degree “act” on people, influencing and sometimes setting certain boundaries for how people can act or choose to act (Latour 1999). This project’s conceptualization of Nunavummiut internet largely prioritizes human actors, particularly users, advocates as well as decision-makers within government.

²⁷ NorthwesTel provides broadband access in a few communities in Nunavut; they do not slow down users’ speeds once users hit their monthly usage cap, but instead, add any additional gigabytes used onto the users’ bills (additional gigabytes cost \$17.50) (Internet Packages, *NorthwesTel*, n.d.).

However, it is important to note that the satellites used to provide Nunavummiut internet can be understood as actants, as non-human agents that impact the kind of internet available to Nunavummiut, how internet is employed by Nunavummiut users, and some of the frustrations that users experience when going online. The particular characteristics of satellite as a communications infrastructure inform some of the ways that internet in Nunavut is used, the ways it is not used, and how it is described in narratives at both the micro level of users, as presented in *Chapter 4: “So frustrating”*, and the macro level of governance.

Broadband Internet in Nunavut Now

Broadband internet has now been available in Nunavut for thirteen years. As previously noted in *Chapter 1: Introduction*, the percentage of household access to internet in Nunavut is estimated at 59 per cent as of 2016 (Review of basic telecommunications services, CRTC 2016 Transcript Vol. 2: 2017), although access varies wildly between communities. By contrast, the estimated percentage of household access in Southern Canada is somewhere between 89 percent (Review of basic telecommunications services, CRTC 2016 Transcript Vol. 1: 522) and 98 percent (Review of basic telecommunications services, CRTC 2016 Transcript Vol. 1: 588).

There may be some who see the federal government’s role in the provision of internet in Nunavut as “generous.” Certainly, \$105 million dollars²⁸ which was the amount allocated for the BRAND program, is a large sum of money. But research has shown that Canada spends less on broadband than countries that could be seen as comparable in population and size. As the Canadian Media Concentration Research Project stated in their 2016 presentation to the CRTC:

We completed a review of the EU and OECD situation outlining the broadband policies for 41 specific countries...At the low end of the scale, we look at Bulgaria, Romania, and Austria that spend around a buck or two per year per person... Looking at the middle range of the scale, we find countries like Sweden, Estonia, the UK, Germany spending between \$5 and \$12 a year. Standing in a league of their

²⁸ This was the total amount for the entire BRAND program, for all remote and rural communities in Canada, not only for Nunavut.

own and outside Europe, of course, we have Australia and New Zealand. New Zealand and Australia invest \$25 and \$163 per person per year respectively.

In Canada, in stark contrast, total federal subsidies over the last five years have been around \$2 per person per year. (Review of basic telecommunications services, CRTC 2016 Transcript Vol. 1: 1506-1510).

When compared with the policies of other countries, the Canadian government approach to and funding of broadband thus comes across as relatively minimal. This minimal investment in broadband has limited effect on those living in Southern Canadian cities; telecommunications companies have largely provided broadband to urban Canadians without any government involvement. It is the remote and rural areas in Canada that rely more heavily on government funding for communications infrastructure and services, that are most impacted by the federal government's minimal investment in internet.

In *Chapter 4: "So frustrating"*, the thesis presented narratives and discourses about Nunavummiut internet from users interviewed for this project, and argued that one of the main narratives about Nunavummiut internet was that it is an internet of frustration – slow, unreliable, and expensive.

Nunavummiut internet was discussed by some of its users as an internet that could and should be improved upon. In the first part of this chapter, in examining some of the history of how internet has been provided to Nunavummiut, and in examining how the ways that internet could be provided were constrained by limited infrastructure and government spending, some of the background to these discourses, has been provided – some of the reasons why lobbyists and those working with broadband believe internet in Nunavut functions (or does not function) and frustrates in the ways it does, from the perspectives of its users.

However, this thesis posits that internet in Nunavut is also implicated in discourses of potential, of possibility. Internet in Nunavut could and should be better than it is – or so some of my informants stated. Substantiating this argument about discourses of potential are the advocacy and lobbying efforts

around Nunavummiut internet that have been ongoing since before internet became available – that date back to the early 1990s. The second part of this chapter examines how various broadband activists and lobbyists have collaborated in their usage of discourses when advocating for improvements to internet access. It is also attentive to the different ideas these actors have, the different options they advocate for, which to some extent, can be understood as different visions for how Nunavummiut internet’s potential can be tapped into.

Contemporary Northern Broadband Lobbying

Naima, an employee of the NBDC, has stated that according to research conducted on behalf of the NBDC, it would cost approximately \$1 billion (CAD) to provide Nunavummiut with internet comparable in speed and applications to what is available to Southern Canadians (Naima 2013: Interview). Not all Nunavut broadband stakeholders are necessarily agreed on this particular sum.²⁹ But there is general agreement among those lobbying federal government that more sustainable funding, a longer-term federal government investment, is necessary for there to be substantial improvement in Nunavummiut broadband internet provision and access. To this point, funding for broadband in Nunavut has largely happened in “one-off” grants and subsidies, given for short-term programs (usually lasting four years), which service providers claim leaves them with little ability to make major upgrades, or to plan for the future (Review of basic telecommunications services, CRTC 2016 Transcript Vol. 2: 2378).

As stated earlier in the chapter, different political parties have had different approaches to internet policy and funding. The federal Conservative government, in power from 2006 to late 2015, unlike the Liberals, did not deal with community champions. They provided funding directly to corporations. This

²⁹ To provide some examples of the funding other stakeholders have requested: Telesat has asked for \$120 million to lower the cost of satellite (Melanie 2013: Interview); Arctic Fibre has asked for a \$230 million investment (Reggie, Arctic Fibre, 2013: Interview); SSi Micro at the 2016 CRTC hearing on basic telecommunications services stated that an exact figure could only be established after service obligations had been mandated (Review of basic telecommunications services, CRTC 2016 Transcript Vol. 2: 2409).

move altered the complexion of policy debates, with corporations competing against each other for funding in government negotiations and also within the Canadian and Nunavummiut media. As well, the Conservatives adopted what might be considered a more orthodox neo-liberal approach to their interpretation of *The Telecommunications Act*, and repeatedly during their time in office, minimized internet funding as a priority, claiming instead that it was relying on the market to fill the gaps. For example, in 2011, the federal Conservative government's stance that internet deployment should rely on the market and "targeted" government funding (one-off grants and programs), was reiterated through a statement made by the CRTC concerning broadband funding in rural and remote areas, such as Nunavut:

...the deployment of broadband Internet access services, including deployment in rural and remote areas, should continue to rely on market forces and targeted government funding... (Telecom Regulatory Policy CRTC 2011-291).

In April 2014, a federal digital strategy was released (by the department formerly known as Industry Canada, now called Innovation, Science and Economic Development Canada). The strategy, called *Digital Canada 150*, set out a three year plan for "making Canada a truly digital country" (Industry Canada 2014). It linked digitizing with the history of the rail road in Canada, positioning both as essential to nation-building, connecting digital infrastructure with transport infrastructure. Of most relevance to Nunavut, the digital strategy states that the federal government would put \$305 million towards connecting Canadians in rural and remotes areas to internet with download speeds of 5 megabytes per second (Mbps) by 2019 (Industry Canada 2014). \$305 million, when spread out over the rural and remote regions of Canada, is not a great deal of money. As mentioned earlier, the NBDC has suggested that \$1 billion is necessary "to bridge digital gaps" (Naima 2013: Interview) just between Nunavut and the rest of Canada.

In short, from 2005 to 2015, the efforts of Nunavummiut internet stakeholders to gain more sustained

funding were largely conducted against the backdrop of two forces. The first was a federal Conservative government (the only entity with adequate resources to provide the investment that advocates, telecommunications companies and the Government of Nunavut (GN) are seeking) that has been hostile to longer-term and larger government investments. The second was the growing expectations of Nunavummiut, who were aware of the faster, less expensive, more varied internet experiences available to Southerners (Review of price cap regulatory framework CRTC 2011 Transcript Vol. 1: 1753).

The Players

Before looking at how those campaigning for greater investment in Nunavummiut internet have approached the federal government, the players involved and their varying ideas about how internet in Nunavut could be improved, will be introduced. What is emphasized in looking at these actors are their differences: their different approaches to internet and their different ideas on how government money should be directed. Having a grasp of these differences not only confirms the idea that internet in Nunavut is contested and that there are varied visions about what internet could be, but also makes clear that Northern stakeholders' collaborations on the usage of discourses during advocacy efforts are strategic. These actors have had to compromise, not only with federal government, but with each other.

It should be noted that in the pages below, the term "Northern" is used more frequently than "Nunavummiut." That is because many of the actors involved identify as "Northern." It is also because in campaigning for improved broadband, organizations across Canada's three Northern territories (the Yukon, the Northwest Territories, and Nunavut) have banded together.

The Wholesalers

Telesat owns the Anik F2 and Anik F3, the satellites that provide cable television, broadband internet and long-distance telephone service in Nunavut. It currently sells satellite bandwidth to the two main

telecommunications service providers in Nunavut: SSi Micro and NorthwesTel.

Telesat's vision for improving Nunavummiut internet service involves persuading the federal government to invest further in satellite: a plan the company suggested in 2012 involved putting up \$40 million of its own money towards improving internet infrastructure in Nunavut, while asking the federal government to contribute \$120 million for purchasing further satellite bandwidth.³⁰ Telesat claims that the government and service providers have already invested in satellite – other technologies, such as fibre optics, would essentially entail starting over. Melanie, a Telesat representative, described the issues facing Nunavummiut internet as her company sees them:

Really what they're [the federal government] trying to do is fund...at the lowest common denominator ...What we would propose, is a solution that would solve it immediately...and we could do it more cost effectively than putting in fibre... (Melanie 2013: Interview).

Melanie's pointed comments about fibre were directed at a potential challenger to Telesat: Arctic Fibre. Arctic Fibre is one of the newer companies on the internet scene in Nunavut. The company, under the leadership of Doug and Michael Cunningham, says it will lay down a fibre optic cable that will extend from Tokyo to London. This cable will pass through significant portions of the North American Arctic, including seven communities in Nunavut, thereby having potential to connect 52 per cent of the territory's population to fibre (Reggie 2013: Interview). The company put forward a proposal to Industry Canada for a \$230 million investment from federal government to connect communities not linked by the initial cable, through the use of spur lines and microwave hops (Bell 2013).

The fact that only seven communities would initially be connected by Arctic Fibre is problematic for some, as community parity is quite important to actors such as the GN. Jeremy, who has worked with NBDC as well as the GN, pointed out issues with fibre during our conversation:

³⁰ At the time of our interview, Telesat had put forward a proposal to the federal government but had yet to hear back. The 2014 digital strategy seemed to be the government's response: its \$305 million investment for all of rural and remote Canada suggested that it would not be providing Telesat with \$120 million for Nunavut.

The...thing is, if you lose your fibre in January, it broke for whatever reason, you can't get it fixed until May [because of winter weather conditions], so you're out, for weeks at a time... (Jeremy 2013: Interview)

Doug Cunningham, the CEO of Arctic Fibre, has said that he thinks satellite should remain as a source of infrastructural redundancy³¹ (Reggie 2013: Interview). But interviewees from federal government agencies are quick to point out, that though having both might be the ideal, satellite and fibre both require funding (at least for the present), and there is only so much money to go around (Michael 2013: Interview; Will, Industry Canada employee, 2013: Interview).

Certain broadband stakeholders remain sceptical of the viability of the Arctic Fibre's plans and its future (Michael 2013: Interview; Naima 2014: Interview). Their scepticism has perhaps proven justified: Arctic Fibre announced in 2013 that it would have its cable in place by November 2015, with or without government investment (Review of NorthwTel CRTC 2013 Transcript Vol. 3: 2117), but this did not happen. In May 2016, it was announced that Arctic Fibre had been acquired by an Alaskan firm, Quintillion Subsea Holdings (Sponagle 2016). Quintillion said, in a statement after the acquisition, that they could not say which communities in Nunavut would be connected via fibre, but that they would be connecting some Nunavummiut communities by 2017; however, this has still not occurred, as of the time of this writing (September 2017).

The Service Providers

There are two main internet service providers in Nunavut, NorthwTel and SSi Micro (which operates under the brand name of Qiniq in the territory).

NorthwTel is the largest telecommunications company operating in Northern Canada and it is still the main provider of telephone, television and broadband internet to consumers across the Canadian North.

³¹ Redundancy often has a negative connotation, but not when it comes to internet in Nunavut. Redundancy in reference to Nunavummiut internet essentially means having "back-up" options, so if a technology were to fail (such as fibre, in this case), there would be a back-up technology in place that could ensure Nunavut was not entirely disconnected.

However, when it comes to Nunavut, NorthwesTel has not been the only internet player. This is primarily because its competitor in the territory, SSi Micro, was the company selected to implement broadband in the territory in the early 2000s and has received federal grants and subsidies to purchase satellite bandwidth and to provide services (Building of Qiniq Network, NBDC, n.d). NorthwesTel therefore offers DSL internet service in only four Nunavummiut communities: Iqaluit, Cambridge Bay, Rankin Inlet and Arviat.

Where NorthwesTel becomes important is in the bigger picture of telecommunications in the Canadian North. Recognizing that there are certain areas of the country, such as the far North, where telephone companies would have difficulties making a profit (and therefore might be hesitant to provide services to those areas), the Canadian government created the National Contribution Fund (NCF) (Procedures for the Operation of the National Contribution Fund, CRTC 2008). Telecommunications companies operating in Canada contribute a certain portion of their profits to the NCF: it acts as a kind of tax on the industry.

For its telephone services, NorthwesTel receives between \$11 to \$20 million from the NCF in annual subsidies (Review of basic telecommunications services, CRTC 2016 Transcript Vol. 2: 1981). So though Nunavummiut may turn primarily to Qiniq and therefore, SSi Micro, for internet, many still deal with NorthwesTel for other telecommunications services, including phone service. It is worth noting the difference in subsidization between these competitors. Compared with the estimated \$11-20 million that NorthwesTel receives per year from the NCF for telephone (Review of NorthwesTel CRTC 2013 Transcripts Vol. 1; 2: 1424, 3291), SSi Micro received \$6 million for the purchase of satellite bandwidth over a five year period, which means a little over a million per year (Review of NorthwesTel CRTC 2013 Transcript Vol. 2: 3291). Again, that is between \$11-20 million every year for phone service (over the Canadian North, not just Nunavut), and over a million dollars for broadband internet

(in Nunavut) for five years.

SSi Micro has argued that broadband internet should be considered a basic service by government, in the same category as the telephone, and therefore eligible for the major subsidies currently given to NorthwesTel. Simon, who works within SSi Micro's Development Department offered a justification for using the NCF for Northern telecommunications infrastructure. Simon believes that since Northerners pay taxes that contribute to Southern infrastructure, that Southerners should be asked to pay taxes (in the form of higher telecommunications bills) to fund Northern telecommunications. He said:

They pay taxes up North the way that we pay taxes down South. We have access to interprovincial national highways, railway systems [in the South], all these things are receiving huge amounts of funding from federal and provincial governments. They don't have any of that in the North. So there's a bunch of infrastructure that we get for free down South that they don't get in the North (Simon 2013: Interview).

In response to these ideas, Jonah at NorthwesTel, stated in our 2013 interview:

If you look at broadband, you need to go beyond the National Contribution Fund, the NCF is paid by rate payers... it's probably better when you're making social policy decisions, that you don't tax the telecoms industry. From a broader sovereignty, national security, social development standpoint, all you're really doing is driving up the bills of consumers in Montreal, Toronto, Winnipeg, to basically pay for broadband in Northern Canada (Jonah, NorthwesTel employee, 2013: Interview).

Advocates

The history of the NBDC and its involvement in bringing broadband internet to Nunavut was discussed above. The NBDC currently sees its purpose as acting as a watchdog and advocate for internet and digital technologies in Nunavut. An informant who works closely with the NBDC said that getting the government to invest the kind of money needed to substantially improve internet for Northerners is difficult. She feels that she must couch her argument in talk of primarily economic benefits and development, though from her perspective, ensuring that Nunavut has the same level of access to internet as Southerners is about rectifying a disparity. She said during our interview:

Look, what it's actually about is equality. But the government won't hand over hundreds of millions of dollars for equality. They won't give out a billion for equality (Naima 2014: Interview).

The GN, like the NBDC, has acted as an advocate for the improvement of Nunavut's access to broadband. In comparison to provincial governments, the GN has more circumscribed powers. As well, whatever funds the GN does have, cannot always be accepted by telecommunications companies, because of "stacking laws" at the federal level, which state that if a company receives a federal grant, it cannot take money from a provincial or territorial government for the same project (Review of basic telecommunications services, CRTC 2016 Transcript Vol. 2: 2657).

Considering that federal government grants are more substantial than what the GN could provide, this has meant that financially, the GN has not been able to contribute much to broadband in the territory.³² However, the GN has continued to advocate for improved internet access in Nunavut and for greater federal funding. GN representatives, aligning with the NBDC, are adamant on the question of community parity – that communities across Nunavut should have the same level of access, at the same price. Margaret Hollis, representing the GN at a hearing in 2013 said:

The Government of Nunavut is committed to all of its communities moving forward at the same time. We do not want to have, have and have not communities (Review of NorthwesTel CRTC 2013 Transcript Vol. 1: 1658).

An important note on the GN is that before Nunavut's creation, "government" for Inuit communities largely meant Qallunaat (white people) and Qallunaat culture. In many instances, particularly in cases involving the relocation of communities and residential schools, government was seen as a kind of force that was, at times, opposed to Inuit culture and values. The perspective towards government has been complicated by the creation of Nunavut and the GN – it has essentially meant that one of the governing forces in the territory is Inuit-led, but at the same time, the territorial government, as mentioned above, also continues to rely heavily on the federal government for funding and G. White

³² As shall be discussed in the next chapter, *Chapter 6: A Local Connection*, the GN did begin funding the Community Access Program (CAP) in Nunavut after the federal government cut its funding of that program.

(2006, 2008), for example, has argued that its administration and decision-making processes replicate Westminster-style parliaments. On certain issues then, the GN can occupy a complex position, representing Inuit in Nunavut to the federal government, and toeing the line when it comes to federal government interests for some Inuit. However, on the issue of internet, because the GN has limited ability to invest in internet, the GN has stood firmly on the side of the various Northern and Nunavummiut broadband activists in talks with federal government.

Discourses of Advocacy and Lobbying

There are differences separating these broadband actors: differences in how they think internet should be funded, differences in the technologies they think should be invested in, and differences in why they think the North needs better broadband – but they are united in believing that internet in Nunavut can and should be improved.

In the pages below, ways that the actors described above have advanced their policy goals are presented. Two practices are focused on, the issuing of reports, and participation in CRTC hearings, to argue for how these practices show collaboration between the players discussed above, in employing agreed-upon discourses, and to underline the ways that Nunavummiut internet remains caught up in discourses of potential.

Broadband Lobbying and Activism: Reports

Various Northern stakeholders interested in advocating for improved broadband in the territory have issued reports as a means of presenting research and recommendations that can be disseminated to media and to government policy-makers. One of the earliest reports related to internet dates to 1993; the most recent report examined was issued in 2014. Below, common narratives tying these reports together are focused on and in particular, how reports issued in 2011 and 2014 mark a strategic turn in negotiating with government. Starting in 2011, the actors discussed above started to show elements of a

shared approach in their articulation of arguments to the Canadian federal government.

One of the earliest internet reports, *Connecting the North* published in 1993, was written before Nunavut officially became a territory, while negotiations concerning the details of its territory-hood were ongoing between the federal government and Inuit organizations. *Connecting the North* was written by the IBC and its findings were based on focus groups with Northerners, who discussed their frustrations with Northern “distance communications” infrastructure. The report notes two key issues, issues that would continue to be cited by Northern communications activists for the next twenty years:

...a widening gap between current communication services available in the North and the rapidly expanding communications services in the South... [and] the current technical infrastructure...does not support the newer technologies (Thomas and Forster 1993: 8).

Subsequent reports were issued in 1995, including *Uqausiit Ukiuqtaqtumit Sukajukkut Tusarutikkik: Northern Voices on the Information Highway*, which summed up ideas and recommendations related to communications that were articulated at the 1994 symposium *Connecting the North*, discussed earlier in this chapter. That symposium itself came out of recommendations from the 1993 *Connecting the North* report referenced above.

The symposium and the report on its findings were the efforts of the IBC as well as the Northwest Territories’ Department of Education, Culture and Employment. In the list of recommendations, the report explicitly articulates an important tactic for Northern actors advocating and lobbying around internet: the need for wide collaboration and partnerships. The report states:

Establishing and operating an accessible, effective Northern communication system will require the collaboration and formation of partnerships between all levels of government, the private sector, public and non-government organizations, and communities (Thomas, Fry and Stiles 1995: 3).

Also published in 1995 was a report written by the Nunavut Implementation Commission, *Nunavut Telecommunication Needs: Community Teleservice Centres*. This report was aimed at the federal government, attempting to ensure that communications was regarded as an area to be funded by federal

government after Nunavut became a territory. In the report's introduction, it says:

The Nunavut Political Accord (Section 8.4) provides that the federal government determine and fund "...reasonable incremental costs arising from the creation and operation of the Government of Nunavut." This would include the infrastructure and ongoing operation and maintenance costs associated with Nunavut Government communication needs...it would be prudent therefore to ensure that any communications infrastructure established serve the communication needs of the Nunavut public at the same time as meeting the communication needs of the Nunavut Government... (Nunavut Implementation Commission 1995: 1).

These reports were issued before the official creation of Nunavut in 1999 and the implementation of broadband in the territory in 2005. Over twenty years, the same ideas and issues have persisted as discourses concerning communications and Nunavut. These ideas include: the necessity of collaboration; the understanding that communications can only be substantially improved if the federal government takes on a more active and sustained funding role; the goal of narrowing the difference between communication services in the Canadian North and South; and the sense that one of the main problems plaguing Northern communications is the lack of adequate infrastructure in place.

Some of the more recent reports, written between 2011 and 2014, which will be argued, show an adjustment in the ways that broadband advocates have articulated their demands to federal government. In 2011, the report *A Matter of Survival: Arctic Communications Infrastructure in the 21st century* (ACIA) was issued. It had been written with participation and input from the NBDC; Telesat; service providers (NorthwesTel; SSi Micro); and government participants (all the territorial governments – the Northwest Territories, Nunavut, the Yukon as well as federal government departments). The group refers to itself as the Northern Communications and Information Systems Working Group (NCIS-WG).

The report was written as an outcome of consultations held in 2010 between these participants, after a communications breakdown occurred during a military exercise in the Arctic in 2009. The Canadian Northern Economic Development Agency (CanNor), a federal department, sponsored the writing of

this report to discern what had caused that breakdown and how those kinds of issues could be prevented in the future.

Those working on the report examined the military angle, but also used the opportunity to reflect on Northern communications infrastructure from a broader perspective (or to employ a word that is used consistently throughout the report, from a more “holistic” perspective). Importantly, the report created a measure of cohesion that had been previously lacking between stakeholders asking the federal government for a greater investment in Nunavummiut internet. As discussed above, there are substantial differences between these actors, differences that have acted in the past as conflicts of interest in negotiations with the federal government. What emerged from this report and its consultations were the areas in which these actors had a degree of consensus, and discourses that they seemed to jointly agree on, in regards to Northern internet and investment. Three main recommendations came out of ACIA report. These recommendations were:

Recommendation 1: Commit to service parity among Arctic communities, and set minimum connectivity standards for all Arctic communities that assure service parity to Southern urban centres.

Recommendation 2: Develop an Arctic-specific strategy with clearly defined rules, that articulates a sustained, multi-year funding commitment for communications network development to meet connectivity standards set by policy makers.

Recommendation 3: Ensure there is a redundant connection into every Arctic community to avoid gaps in the provision of essential communication services (2011: 11-12).

The second recommendation in particular would become the regularly repeated discourse and demand of Nunavummiut broadband activists and lobbyists to the federal government (as shall be seen below when CRTC public consultations are discussed).

The last report considered here was issued in 2014 by NCIS-WG, the same group that wrote the ACIA; it was entitled *Northern Connectivity: Ensuring Quality Communications*. This report sought to build on the 2011 recommendations. Since the federal government had not taken the group’s 2011

recommendation of creating an Arctic broadband strategy, the group offered potential plans in this 2014 report. They provide specific recommendations related to “setting a target broadband speed and calculating the cost of internet backbone upgrades³³” as well as “developing a sustainable financial model and measuring the economic and socio-economic impact of investments” (2014: 17). In short, this report provided concrete ideas and plans for how Nunavummiut internet could be improved, could be invested and could have its potential further developed.

What these reports suggest is the increasing collaborative nature of lobbying around internet in the Canadian North, and in particular, a collaboration on the kinds of discourses reiterated by these players to the federal government. While collaboration has long been understood as necessary (as evidenced by the quote from the 1995 symposium report), informants suggested that the Conservative government’s policy of primarily dealing with companies over community champions had changed the nature of lobbying; the focus shifted to individual companies and their plans over the broader needs of Arctic communities (Naima 2013: Interview).

There is perhaps another reason, beyond facilitating conversations around common goals among stakeholders, for why creating reports has been an important tactic in the negotiations around broadband policy. Research and reports on internet in “Canada” do not always include data on the North and that has had major policy consequences. Referencing a recent report that claimed to measure broadband performance in Canada but excluded Nunavut, a GN representative said: “We all know that research drives policy. But how can there be good policy in Nunavut if we are excluded from the research?” (Review of basic telecommunications services, CRTC 2016 Transcript Vol. 2: 3155-3156).

These reports therefore, can also be understood as trying to fill gaps within Canadian internet research,

³³ The 2014 report set target broadband speeds at 9 MBPS for download, 1 MBPS for uploading. Four potential plans for improving Arctic infrastructure are presented with their costs ranging from \$623 million to \$2.178 billion (NCIS-WG 2014).

which can exclude Nunavut (and the North) from its lens.

Discourses of Advocacy and Lobbying: CRTC Public Consultations

There are four main government agencies involved in discussions around Nunavummiut internet. The department formerly known as Industry Canada (now Innovation, Science and Economic Development), has given out the bulk of the funding for internet infrastructure and upgrades but also drafted the Digital Canada 150 strategy, discussed above, which was rather unresponsive to Northern needs. CanNor and Aboriginal Affairs (since late 2015, known as Indigenous and Northern Affairs) are meant to advocate on behalf of indigenous peoples in Canada – both have provided assistance to broadband programs in the North (CanNor also provided funding for the drafting of the 2011 ACIA report), but they seem to have less legislative pull when it comes to telecommunications compared with Innovation, Science and Economic Development. Finally, there is the CRTC³⁴, the main regulatory commission for Canadian telecommunications, which is tasked with ensuring telecommunications in Canada serve the public interest.

In keeping with its mandate to regulate in service of the Canadian public, the CRTC regularly holds public consultations where anyone can submit complaints, ideas or recommendations relevant to the consultations, and can request to present their ideas to the CRTC in person at scheduled public hearings (Shepherd, Taylor and Middleton 2014). Northern broadband stakeholders have used CRTC consultations and hearings as spaces for publicly voicing their concerns about broadband in the North.

The CRTC has played a significant role in the Canadian North, because “market forces” do not solve the telecommunications issues experienced by Northerners. The CRTC is tasked with intervening in telecommunications when there is no business case, to ensure that “basic service objectives” are met.

³⁴ The CRTC “regulates and supervises broadcasting and telecommunications in the public interest... focuses on achieving policy objectives established in the *Broadcasting Act*, *Telecommunications Act* and Canada’s anti-spam legislation (*CASL*)” (See: About Us, CRTC, 2017: <http://www.crtc.gc.ca/eng/acrtc/acrtc.htm>).

According to the CRTC:

The basic service objective ensures that Canadians in all regions have access to affordable, high-quality telecommunications services. Currently, the basic service objective consists of the following: individual line local touch-tone service [telephone]; capability to connect to the Internet via low-speed data transmission at local rates [dial-up internet]; access to the long distance network, operator/directory assistance services, enhanced calling features and privacy protection features, emergency services, as well as voice message relay service; and a printed copy of the current local telephone directory upon request (Telecom Notice of Consultation CRTC 2015-134).

As landline telephone is part of the basic service objective and NorthwesTel receives annual subsidies for telephone services, the company is subject to regular reviews by the CRTC. Northern broadband advocates and lobbyists used these CRTC public assessments of NorthwesTel to argue that broadband should be added to the basic service objective. In the following section, an overview of recent hearings is provided.

CRTC Hearings: 2010-2016

In 2010 (five years after Nunavut acquired access to broadband internet), a CRTC consultation was held to review the basic service objective. Though individuals, organizations and governments are welcome to participate in these consultations, the main voices from Nunavut came from businesses operating in the territory, in particular, SSi Micro. SSi did not send an in-person representative, but sent written remarks to be read at the public hearing in Gatineau, Quebec. Interestingly, in assessing whether broadband internet should be added to the basic service objective and have its own funding mechanism, SSi said at that hearing that broadband should *not* be funded as a basic service:

Should the Commission establish a fund to enable Canadians to access high-speed Internet service in areas where it is not provided? No...The harm that SSI would experience as a result of the application of a contribution tax to Internet service revenues...would actually prevent SSI from expanding...broadband services (Obligation to serve and other matters, CRTC 2010 Transcript Vol. 4: 4493-4494, 4537).

It was after this 2010 hearing that the CRTC, in *Telecom Regulatory Policy CRTC 2011-291*, issued its statement that the deployment of broadband should continue to be left to market forces, which was

quoted earlier in this chapter.

Another CRTC consultation was held in 2011, this time to assess NorthwesTel's prices and provision of services in the North. At this hearing, SSi Micro sent three representatives, and the GN also chose to participate in person. SSi Micro focused its efforts on stating why telecommunications conditions in the North should be more competitive, but the GN used the opportunity to suggest that broadband should be subsidized in a more substantial fashion. Margaret Hollis, representing the GN, said regarding broadband investment in Nunavut:

We need to plan holistically and not just in these little band-aids of this subsidy here and this Infrastructure Canada grant and that Industry Canada grant and this CRTC grant. We need a coherent plan for the whole thing (Review of price cap regulatory framework CRTC 2011 Transcript Vol. 1: 1707).

Part of the GN's decision to participate in this hearing, as well as their choice of language, seemed influenced by their involvement in the ACIA Report (Review of price cap regulatory framework CRTC 2011 Transcript Vol. 1: 1694), which as discussed above, gathered together Northern stakeholders to discuss internet and explicitly recommended that the federal government develop a "holistic" broadband strategy and a sustainable funding mechanism for broadband. The ACIA report was published a few months prior to this 2011 public hearing.

Based on the findings of this 2011 hearing, in which many critical comments were levelled at NorthwesTel, the CRTC announced that NorthwesTel had to develop a plan to modernize its infrastructure in the North. The CRTC also announced that it would hold a public consultation to hear comments from Northern stakeholders about NorthwesTel's plan.

At this 2013 consultation, which took place in the Yukon and the Northwest Territories, a wider range

of Nunavut broadband stakeholders took part. In terms of broad recommendations, Northern participants echoed the recommendations made in the ACIA report. The Yukon government, the GN, the NBDC and SSi Micro all reiterated that the federal government needed to adopt a more “holistic” approach (Review of NorthwesTel CRTC 2013 Transcripts Vol. 1; 2; 3: 1592, 2003, 3088, 3219-3220). Arctic Fibre, the NBDC and SSi Micro, in their respective presentations, recommended that NCF subsidies be directed towards broadband (Review of NorthwesTel CRTC 2013 Transcripts Vol. 1; 2; 3: 2078-2079, 2088, 3091-3092, 4391). Particularly from SSi Micro, the recommendations were a far cry from their assertion just three years earlier that using the NCF for broadband would be problematic. Here is an excerpt regarding broadband funding from SSi Micro’s presentation to the CRTC in 2013:

The Commission must break this cycle and chart a new course that addresses the problem holistically. Public funds must be used effectively and to the greatest benefit of all stakeholders through fair and open processes... We suggest a new mechanism be developed and be managed as part of the National Contribution Fund... (Review of NorthwesTel CRTC 2013 Transcript Vol. 3: 3220, 3258).

At this hearing, in which Northern actors seemed to operate with some degree of consensus regarding broad recommendations, GN representatives openly articulated the importance of collaboration to the North:

We are more cohesive culturally and we care about each other more than our Southern counterparts... Partly that's because at least among the Inuit and Innu– well, the Inuit peoples. I'll collect them together. Almost everybody is related to almost everybody else by blood or marriage... We're looking for a Pan-Northern solution (Review of NorthwesTel CRTC 2013 Transcript Vol. 1: 1656-1657).

In the NBDC’s rebuttal, Oana Spinu powerfully positioned the need for improved broadband within historical relations between Inuit communities and the Canadian government:

One cannot talk about fairness without asking what is fair for the North, and specifically for the Inuit

and First Nations peoples who inhabited the land long before the fur traders, whalers, gold miners, missionaries or Canadian government officials ever made contact...As Grise Fiord is so often brought up as an example of a very hard to serve community because of its small population and extreme isolation, I'll ask what is fair for the residents of that community?

Grise Fiord was not an area of regular Inuit settlement. Inuit from what is now Inukjuak were forcefully relocated there by the Canadian Government in the early fifties...Given the current interest in the Arctic, its resources and waterways...I think it is in the national interest to support healthy and strong communities in the North, and affordable and equitable broadband is a necessary requirement (Review of NorthwesTel CRTC 2013 Transcript Vol. 3: 4285-4288).

In the aftermath of this 2013 public proceeding, the CRTC ruled that there needed to be another comprehensive review, to be launched in 2014. This review would specifically investigate circumstances around satellite-based internet services, to assess whether there needed to be changes made to the subsidy regime, the NCF, and review “what is required by all Canadians to fully participate in the digital economy” (Telecom Regulatory Policy CRTC 2013-711). This marked a change in tone from the previous policy of letting the market develop solutions. The CRTC notice about this consultation said:

The Commission also considers that, without its intervention, the digital divide within NorthwesTel’s territory (i.e. terrestrially versus satellite-served communities) will likely not be resolved (Telecom Regulatory Policy CRTC 2013-711).

It is worth noting that the language used by the CRTC to make its case for why there needed to be review of satellite-based internet services was couched in the language of ICT4D and the digital divide (the CRTC needed to review “what is required...by all Canadians to fully participate in the digital economy...without its intervention, the digital divide within NorthwesTel’s territory (i.e. terrestrially versus satellite-served communities) will likely not be resolved” (Telecom Regulatory Policy CRTC 2013-711)). It suggests first of all, in its specific call-out to the digital economy, the importance placed on the economic potential of ICTs, including internet, by this organ of Canadian governance. It also suggests that the disparities in internet access, the digital divide in Canada had been conceptualized by the CRTC as primarily infrastructural (terrestrial versus satellite connections) rather than geographic

(North-South or urban versus remote and rural) – though, for example, Spinu and the GN specifically called out the ways that this difference in internet access is a Northern issue (requiring, according to the GN, a “pan-Northern solution”, while Spinu made the argument that improved internet access is necessary for ensuring “strong and healthy Northern” communities).

In April 2016, the CRTC held hearings in Gatineau, Quebec to look at whether broadband should become part of the basic service objective, and if it were, what that objective (in terms of speed and funding) should look like. Participants at this hearing included the actors discussed in this chapter (although Arctic Fibre did not participate), as well as representatives from Nunavik (the Inuit territory in Quebec), and representatives from First Nations and Métis communities in Northern Quebec and Northern Ontario.

There were differences in what participants asked the CRTC for, particularly in the specific details of recommendations.³⁵ But many of the Northern and First Nations participants, such as the Yukon Government, the Kativik Regional Government (Nunavik’s representatives), First Mile Connectivity (a group interested in First Nations access to ICTs), the NBDC, the GN and SSi Micro advocated for a more sustained funding mechanism for broadband³⁶ (Review of basic telecommunications services, CRTC 2016 Transcripts Vol. 1; 2; 3: 52, 385, 681, 1981, 2378). Further, these actors along with Telesat argued for broadband’s inclusion in the basic service objective (Review of basic telecommunications services, CRTC 2016 Transcripts Vol. 1; 2; 3: 67, 1981, 2363, 3735, 4347).

At the hearing, NorthwesTel suggested that dial-up internet should no longer be part of the basic

³⁵ See the Postscript to this chapter for a chart summarizing recommendations from prominent stakeholders at the 2016 hearing.

³⁶ On the question of subsidies, Telesat stated that as it did not have a stance on subsidies, as the company does not need them to operate; however, they stated that they understood service providers might require them (Review of basic telecommunications services, CRTC 2016 Transcript Vol. 3: 7855-7856).

service objective, and that subsidies for dial-up should be redirected towards broadband (Review of basic telecommunications services, CRTC 2016 Transcript Vol. 7: 9012, 9026). NorthwesTel currently receives subsidies for dial-up, so in making this recommendation, the company seemed to show some solidarity with other Northern broadband lobbyists and activists, particularly SSi Micro, who have long argued that subsidies for dial-up were an inefficient use of resources (Simon 2013: Interview). It also marked a change in orientation in regards to the NCF and broadband. As mentioned earlier in this chapter, during the 2013 interview with Jonah, a NorthwesTel employee, he argued that using the NCF for broadband would be poor decision-making from a social policy perspective (Jonah 2013: Interview). NorthwesTel's 2016 comments on subsidizing broadband by using the NCF, therefore, marked a significant change in position.

However, NorthwesTel also suggested during this hearing that the provision in the basic service objective which says that consumers should have a choice of long-distance telephone providers should be removed (Review of basic telecommunications services, CRTC 2016 Transcript Vol. 7: 9035). This recommendation is very much contrary to SSi Micro's stance on telecommunications in the North; SSi Micro continually argues that consumers need more choice (Simon 2013: Interview). Thus, the presentations at the hearing showed some compromises and changes to previously held positions: there were degrees of discursive collaboration on display, but there was not universal consensus.

Countering the presentations of Northern stakeholders at the hearing, some of the larger and powerful corporations such as Telus and Xplornet, who operate across Canada, were adamant in their presentations that the CRTC should not implement any new subsidies but continue to let market forces determine solutions for broadband (Review of basic telecommunications services, CRTC 2016

Transcripts Vol. 3; 6: 3758, 7841, 7855). However, in December 2016, the CRTC made its ruling: mobile and wired high-speed internet are now part of the basic service objective (Telecom Regulatory Policy CRTC 2016-496). This marked a major victory for Northern broadband stakeholders, but almost immediately, Bell, one of the largest telecommunications companies operating in Canada, announced that it was “reviewing the decision” (Pedwell 2016), leading speculation that there could be corporate challenges to the ruling. In September 2017, the federal government announced through its department of Innovation, Science and Economic Development, that it was granting NorthwesTel \$50 million dollars to upgrade Nunavummiut internet's backbone. This investment is expected to triple internet speeds in the territory, and increase the territory's broadband capacity by 20 fold (Jackson 2017). This grant can be seen as a mark of the success of the Northern internet activists' media campaign; however, the kind of internet available to Nunavummiut, even with this grant, will continue to remain far below the speeds available to Canadians living in urban areas in the South. Thus the work of creating parity between Nunavummiut internet and internets in the Canadian South continues to have relevance.

Tying this Chapter's Evidence to the Thesis' Overall Concerns

The section above, on the discourses employed by various advocates and lobbyists who have argued at the federal level for further investment and long-term planning around internet in the North, has argued that the discourses employed in advocating to the CRTC and in the writing of joint reports, discourses that stress the need for a longer-term funding mechanism for Northern internet, a holistic plan for internet, and that broadband internet be made a basic service so as to have access to funding from the NCF, are discourses of potential. They are discourses that suggest that Nunavummiut internet has the potential to be improved, if certain steps and initiatives are taken at the federal level. The discourses employed by lobbyists and advocates, parallel those articulated by Nunavummiut internet users in the previous chapter, *Chapter 4: “So frustrating.”* In the previous chapter, users articulated Nunavummiut

internet's potential largely in terms of what kinds of effects an "improved" internet might have for the lives of Nunavummiut as well as the ways that it is already seen by some informants as altering and improving certain aspects of life in Nunavut. The discourses in this chapter focus on how the potential of Nunavummiut internet might be developed through changes made to its funding and infrastructure (how much bandwidth is purchased from the satellite, or if fibre optics are implemented).

The historical narratives of internet implementation can also be linked to discourses from *Chapter 4: "So frustrating"*, particularly to discourses of frustration, because they articulate some of the reasoning for why informants believe that Nunavummiut internet functions in the manner that it does (being seen as slow, unreliable, expensive, and bandwidth-scarce). In these ways, the historical narratives and advocacy/lobbyist discourses examined in this chapter contextualize the frustrations of users and connect them to narratives of decision-making at the macropolitical level.

The discourses employed in this chapter suggest that at the present moment, for those involved in the provision of internet in Nunavut, either as advocates, wholesalers or as telecommunications companies, the frustrations of internet as well as its potential are deeply linked with the past, present and future decision-making of the Canadian federal government. Government decision-making and investment in satellites in the 1970s, as well as the relative lack of investment in other types of physical infrastructure, were key to the decision to employ satellite as the main means for providing internet to the territory. Subsequent government investment, to this point, has meant that satellite has continued to be employed, and that levels of bandwidth available to the territory have been insufficient, because the grants given to companies have not been enough to purchase an adequate amount of bandwidth for the territory's number of users. Government planning, and larger and more consistent government investments, some advocates have argued, is essential to improving Nunavummiut internet and maximizing its future potential.

Nunavummiut Internet and the Nation-State

In recent academic literature, there has been debate about the power and relevance of the nation-state, in light of the reach of transnational corporations and growing access to technologies such as internet, which function across state boundaries, and sometimes seem to undermine and suggest the irrelevance of national boundaries (Castells 2010; Galloway 2004: 3). However, while the relative power of the state versus supranational and transnational institutions and movements remains a rich area for academic and political debate, in the case of Nunavut and Nunavummiut internet, the prominence of the nation-state and of governmental power, remains pivotal to peoples' experiences. At the very least, this power has been discursively reiterated by Northern internet players, when arguing for greater investment and planning around internet in the Canadian North and in other rural and remote areas within Canada.

For many in Nunavut, federal government power is felt rather pervasively (G. White 2009: 59). Government acts as one of the main employers; it is a source of grant funding for cultural performances; it is the entity with which many Nunavummiut have had to negotiate with – for land, language and cultural rights, for their children's education, and as Roth has detailed, for access to and autonomy over media (Madeleine 2014: Interview; Naima 2014: Interview; Roth 2005). When it comes to internet, the nation-state continues to be an important player in Nunavut.

As the work of scholars such as Goldsmith and Wu (2008) Franklin (2013) and Lessig (2006), discussed in *Chapter 2: A Review of the Literature*, suggests, the debates on internet governance go far beyond the issue of internet provision, to considering issues of safety, security, criminality, and freedom of expression. Lessig has posed the question: "what kinds of claims can...sovereigns make on cyberspace?" (2006: 302), a question that he maintains has not been answered. How internet will be governed (and controlled) and by whom, remains open to debate, and as Franklin's work argues, the

future of internet remains uncertain (2013: 15). Its potential for beneficence depends on the proactivity of actors at various levels, from local settings to international institutions, fighting to ensure possibilities for a free, open, inclusive and ethical internet. This thesis has largely focused on some of the discourses and discursive connections between local usage and national discussions around Nunavummiut internet. However, it is worth noting that research conducted at the international level, such as the research on internet funding cited by the Canadian Media Concentration Research Project (discussed earlier in this chapter) can be used by local activists to make arguments at the national level, because international research and international standards (such as the *Charter of Human Rights and Principles for the Internet*, which cites internet access as a right (2014: 6)) help to contextualize the circumstances within a particular state such as Canada. Such research illustrates where a state stands vis-à-vis other nations in regards to an area, such as internet. In the case of the Canadian Media Concentration Research Project, the statistics on how much other countries spend on internet provision helped demonstrate to those at the CRTC hearing how relatively little Canada spends on internet.

The discourses employed when discussing the history of Nunavummiut internet, and its potential at the federal level, suggest that the federal government of Canada has been constructed as a key and powerful player in regards to Nunavummiut internet. In the future, with corporations such as Google and Facebook taking a more active interest in the provision of internet in areas where access to internet has been seen as sub-par (Associated Press 2017; Project Loon n.d.), discourses around the power of federal government in regards to Nunavummiut internet might wane, if these major players within the technology industry start to provide the investment that up till now, internet lobbyists hoped the federal government of Canada would provide.

The Faces and Facets of Nunavummiut Internet

While contextualizing discourses of frustration and providing further discourses of potential in regards

to Nunavummiut internet, this chapter also adds evidence to the thesis' central argument that Nunavummiut internet has multiple faces, facets and meanings. In *Chapter 4: "So frustrating"*, Nunavummiut internet emerged as an obstacle, as affective, as potential, as an imaginary, as a tool for communication, a platform for education, a means for banking and personal finance, as a site for pleasure and entertainment and as having content that a user could both produce and/or consume. While also displaying certain characteristics discussed in the previous chapter, in this chapter, other aspects of Nunavummiut internet come to the fore. It emerges as a kind of physical infrastructure (in this case, reliant on satellites, with the hopes from some that it will become reliant on fibre optics in the future), and it also becomes an object of politics, both produced and implemented as the result of governmental power, and discursively constructed as being hampered by the choices of this governmental power. Nunavummiut internet also emerges as a reason for political action: it is why advocates and lobbyists have engaged with federal mechanisms such as CRTC hearings, and have met with government officials and bureaucrats consistently over the course of the last decade. Finally, this chapter makes evident that varying conceptualizations of Nunavummiut internet can be argued for: Nunavummiut internet advocates and lobbyists, in their campaigns for further investment, have made the categorization of internet as a basic service a focal point of their fight. They have argued for internet as a necessity that all Canadians should have a right to, such as telephone access or access to clean water. In having to make this argument, they reveal the federal government's implicit categorization of broadband internet as *not* a basic service, as a non-necessity, for most of the 21st century (a stance which was only altered in late 2016).

As well, Nunavummiut internet can be seen as having its potential discursively linked with the politics of Northern broadband actors, who have utilized the politics of collaboration, to argue and campaign for internet through the employment of joint discourses in the writing of reports and in testimonies at

CRTC hearings. Adding to its previously articulated characteristics then, this chapter makes the argument that Nunavummiut internet should also be understood as a physical infrastructure rooted in space, as an object of politics and governance and as an object of political action.

Nunavummiut Internet and Space

In thinking about Nunavummiut internet as a physical infrastructure based in space, previous discussions about internet's connections to geography, space and ideas of remoteness re-emerge. To begin with, informants such as Liane (2013) (who noted in an interview that she realized the potential internet would have for connecting remote communities in the North with each other), Jeremy (2013) (who discussed the complications of implementing internet infrastructure in Nunavut, partially because of Nunavut's climate and geography), and Oana Spinu's testimony to the CRTC (2013) (about the moral imperative of connecting remote communities such as Grise Fiord), bring the discussion back to how issues of space and distance contributed to making Nunavummiut internet challenging to provide. They also act as reasons for why Nunavummiut internet is thought to have so much potential – for its potential to bridge distances and space. To summarize the views of various informants: Nunavummiut internet has been complicated to provide to Nunavummiut because of issues of space and geography; and Nunavummiut internet is imbued by advocates and users with potential, for its possibilities to potentially mitigate these issues.

This chapter has also tied the relative paucity of physical infrastructure in Nunavut to internet's ongoing issues in the territory. This lack of infrastructure has often been attributed to the objective features of the land. Nunavut's Arctic geography and climate can make the building of large-scale infrastructural projects expensive and complicated, as Jeremy's anecdote about building the Qiniq network illustrated. Though this reason is insufficient in itself to completely explain the relative lack of investment in infrastructure in the territory (government agenda-setting and prioritizing also need to be

considered), it suggests the need to be mindful of how the natural environment is not always a neutral, background actor, but can play a role in experiences of media, an idea increasingly considered by scholars working within the field of media infrastructures (Maxwell and Miller 2012).

As discussed in previous chapters within this thesis, Harold Innis (1951; Berland 2009) was interested in how infrastructure, space and power are connected. As indicated earlier, it was Innis' argument that infrastructure, particularly media and transport infrastructure, contribute to rendering certain areas "margins" and other areas "centres" (Berland 2009). The directions in which information and goods flow, according to Innis, construct certain places as peripheries and others as foci and centres. These ideas can be related to Soja's theory of spatial (in)justice (2010), outlined in *Chapter 2: A Review of the Literature*, that inequalities and injustices are not only historic, but have a geographic dimension – their placement in space is not coincidental, but constructed.

The federal government's historic pattern of not substantially investing in building physical infrastructures suggests that the federal government sees Nunavut as peripheral to its concerns, an argument that several informants made during interviews (Liane 2013: Interview; Naima 2014: Interview; Pauline 2014: Interview). But to use Innis' and Soja's ideas, the history and current circumstances of the North, in this case, in relation to internet, also suggest that the federal government, through its action and inaction on areas such as internet and infrastructure, contributes to *constructing* Nunavut as a "marginal" (or a marginalized) space within Canada. Soja has written about spatial injustice:

Space is not an empty void. It is always filled with politics, ideology, and other forces shaping our lives and challenging us to engage in struggles over geography...All who are oppressed, subjugated, or economically exploited are to some degree suffering from the effects of unjust geographies...(2010: 19).

Drawing on the ideas of Soja, that space is "always filled with politics, ideology" and Innis' notion

around the connection between communication platforms and the construction of margins and peripheries, the findings from this chapter point to the ways that some of the history, experiences and debates about Nunavummiut internet are linked to understandings and narratives around space, geography and distance. Both historical and current federal government behaviour in regards to internet can be seen as contributing to injustices and inequalities that manifest spatially (in this case, particularly affecting the North, as well as other rural and remote areas in Canada), in constructing Nunavut as a “periphery” within Canada.

On Parity and Internet's Importance in Nunavut

Sandvig’s ideas on parity (that indigenous communities, in their engagements with media infrastructures, are often pursuing parity with media standards elsewhere) (2012) have been discussed earlier in this thesis. However, the question of parity emerges again several times in this chapter: when discussing the ACIA report (2011) and its first recommendation: (“Recommendation 1: Commit to service parity among Arctic communities, and set minimum connectivity standards for all Arctic communities that assure service parity to Southern urban centres” (2011: 11)), when discussing the GN’s stance on community parity (that communities in Nunavut should have the same level of internet) and the NBDC’s discussion of how the fight for improved internet access is a fight for equality with the South that would take around one billion dollars. That parity – among Nunavummiut communities and between Nunavummiut internet and internet available in the South – is a priority for some advocates, has been made explicit in these pages. This advocacy for parity suggests that internet is a metric by which some advocates measure the equalities or inequalities between areas; it is arguably a metric by which spatial (in)justice is measured. One can therefore understand the advocacy of Nunavummiut internet advocates for parity as advocacy for equality, and for the rectifying of a particular inequality that has a geographic manifestation, so that Northern Canada has internet access on par with the digital opportunities available in Southern Canada.

This use of internet as a metric for measuring spatial inequalities, reinforces the sense of just how important internet is considered to be for some Nunavummiut. In emerging as an object of politics, the argument can be made that Nunavummiut internet is understood by activists and advocates as something worth campaigning for, as an area worthy of government attention, investment and planning. Spinu's equation of communications capabilities with the "healthiness" of Northern communities underlines this point: internet is not seen as an add-on, but is discursively constructed as necessary to the region's future health and prosperity. This links with the finding from the previous chapter on user discourses (*Chapter 4: "So frustrating"*), which also suggested that Nunavummiut internet was not negligible or an issue of second-rate interest, but one that informants seemed to see as important for the future potential of the territory, its economy, the education system and for the ability of Inuit communities to share cultural practices and communicate with each other.

The political campaigning for internet, as discussed earlier in this chapter, echoes some of the campaigns that were necessary for Inuit communities to have access to the tools and resources to produce and broadcast Inuit television content for and to themselves. One of the key reasons why Inuit communities and political advocates wanted access to the tools of television production was for television's ability to disseminate cultural practices and ideas (Roth 2005). These ideas have also emerged in political campaigns and discussions regarding why Nunavummiut internet's potential should be further invested in: it can be used, like other media have been used, for the production and consumption of cultural material and it can be used for sharing cultural knowledge among remote communities, as Liane noted in this chapter and Madeleine stated in *Chapter 4: "So frustrating"*. These statements help to reinforce the idea that internet, like television and other media, can be used for specific cultural practices (some of which scholars such as Alexander et al. (2009); Christensen (2003); and Soukup (2006) have examined, as explored within *Chapter 2: A Review of the Literature*),

practices such as the dissemination of Inuit video and teaching traditional knowledge. Internet can arguably be understood as a medium, as used by communities and individuals for some specific cultural purposes.

However, if the political campaigning of Northern broadband stakeholders suggests the importance of internet to various Northerners for multiple purposes, including cultural ones, and the belief that internet is an area that requires further investment, the fact of the need for their campaigns and the past levels of low government investment suggests that Northern internet has not been as highly prioritized by the federal government of Canada. This is perhaps in keeping with patterns within the relationship between Northerners (specifically Inuit communities) and federal government, where media, in particular, have been seized upon by Inuit as important tools for their communities, a perspective that the federal government has needed convincing of, thus requiring extensive campaigns on the part of Inuit activists for government investment in media access for the North. The fact that activists have been asking the federal government to invest in internet from before the time that Nunavut was a territory (during talks about the development of the territory) speaks to both the patterns of lengthy periods of media campaigning, and also to the enduring idea of the importance of internet for some Nunavummiut.

The resilience of Northern broadband activists' campaigning calls to mind Roth's notion of *cultural persistence* (Roth 2005: 17). The idea of cultural persistence relates to the ways that indigenous peoples in Canada, and specifically Inuit communities in the case of Nunavummiut internet, have persisted in their cultural concerns and priorities, and continue to fight and negotiate for the tools to further these cultural concerns, and for the increased ability to represent themselves to themselves. As with television before it, some of Nunavummiut internet's potential lies in its ability to provide Inuit communities with further tools for cultural performances and representations, and as such, the fight for

internet can be grouped with Roth's description of the activism around television, as an example of cultural persistence.

Conclusion

The evidence presented in this chapter ties into this thesis's ongoing arguments that internet in Nunavut is complex and fits into a range of definitions and categories, and that it is implicated in discourses of both frustration and potential. In examining the narratives of federal government policies towards Nunavut and Nunavummiut internet, one can gain a deeper understanding of why internet in Nunavut is discursively constructed as frustrating and failing. Looking at how stakeholders have advocated and altered federal policy regarding broadband has shown how some Nunavummiut have been actively working to find ways to tap into and alter the potential of internet, offering differing ideas at the level of policy and infrastructure of what Nunavummiut internet could be, and how it could be provided. Through the lens of politics, internet in Nunavut emerges as a physical infrastructure, as an object of politics, as an object of political action and engagement, and as a concept whose status (as a basic service or not) has been argued over.

In the chapter that follows (*Chapter 6: A Local Connection*), the discourses of frustration and potential discussed in this and the previous chapter come together in an examination of the Community Access program in Nunavut, which provides a means for thinking about some of this thesis' main concerns: the complexities around the very idea of internet; the cultural nature of Nunavummiut internet; discourses and issues that connect the macro levels (government policy) and the micro levels (local usage) of Nunavummiut internet, and narratives in which Nunavummiut internet is implicated.

Postscript: CRTC 2016 Review of Basic Telecommunications Services Chart

During the 2016 CRTC Review of Basic Telecommunications Services, the Commission asked participants to state their recommendations regarding speed and how broadband should be funded. If broadband was to become a basic service, what minimum download and upload speeds did the participants think the CRTC should mandate? And how should the costs of broadband be covered? In the chart below, summaries of the central

participants' recommendations vis-à-vis these issues are provided.

Organizations/Companies/ Governments	Speed Recommendations (in megabytes per second – Mbps)	Funding Recommendations
Yukon Government (See Transcript Vol. 1: 33,71)	25 Mbps for download and 3 Mbps upload; aspirational target: 130 Mbps	Extend the National Contribution Fund (NCF) to support broadband as basic service
Kativik Regional Government (Nunavik) (See Transcript Vol. 1.: 445-446, 511)	Focus should not be on speed, but on increasing capacity	Federal government either provide subsidies to customers directly or subsidizes the provider
NBDC (See Transcript Vol. 2: 2037-2038, 2091)	Does not provide speeds, because specific numbers cause internet services to plateau (users are provided the bare minimum speeds mandated)	Federal government provides upfront capital investment for infrastructure upgrades (bring in fibre, upgrade the satellites); recurring federal government funding for the satellites
Government of Nunavut (See Transcript Vol. 2: 3167, 3170)	9 Mbps download and 1.5 Mbps upload standard by 2019	There should be federal government support for new infrastructure and a broadband contribution fund
SSi Companies (See Transcript Vol. 2: 2395-2398, 2412)	Does not specify speeds, because focus should be on dealing with the wholesale cost of buying bandwidth	The creation of a Backbone Assistance Program (BAP), to lower costs of backbone, funded via the NCF
Xplornet (See Transcript Vol. 3: 3715, 3735, 3758)	5 Mbps for download, 1 Mbps for upload*; aspirational goal of 25 Mbps by 2020	There should be no new CRTC mandated subsidies for broadband, as this will curtail competitiveness
Telesat (See Transcript Vol. 3: 4506-4508, 4527)	Does not specify speeds; company determines speeds based on funding available	Does not use subsidies for its operations, but not against the idea of subsidies for service providers
Telus (See Transcript Vol. 6: 7830, 7855-7856)	5 Mbps for download, 1 Mbps for upload*	Policy should stay committed to letting market forces find solutions
Bell Canada/Northwestel See Transcript Vol. 7: 9032-9036, 9087)	Speed should not be regulated. Keep at 5 Mbps for now; companies plan for 10 Mbps in future	One-time subsidy for infrastructure builds; ongoing subsidy for satellite-served communities; NCF should be changed so that dial-up internet is removed as basic service and the necessity of having a choice of long-distance telephone provider is removed.

*These are the broadband speeds the CRTC has previously mandated, in 2011.

Chapter 6:
A Local Connection: CAP and Nunavummiut Internet

Introduction

This chapter examines the Community Access Program (CAP) in Nunavut, which provides public spaces for internet usage, either through computer access, or by giving patrons with smartphones access to wi-fi. By focusing on a particular publically-sponsored digital program in Nunavut, this chapter captures and synthesizes the foci from the previous two empirical chapters (*Chapter 4: “So frustrating”* and *Chapter 5: Fractious Collaborations*), examining Nunavummiut internet from macro (government policy) and micro scales (local usage), exploring specific policies relevant to Nunavummiut internet, probing user discourses of internet, showcasing in particular the ways that through CAP sites, Nunavummiut internet has facilitated specific community and cultural initiatives. The chapter adds further evidence to the thesis’ central arguments, that Nunavummiut internet is implicated in discourses of potential and frustration and that Nunavummiut internet has multiple faces. It examines how, within the context of CAP, narratives of Nunavummiut internet emerge, which include: understanding Nunavummiut internet as a tool for community; as a site for cultural projects; as frustration; as a means for employment and learning; as a space for information freedom; as political and cultural. In examining the politics of Nunavummiut internet, Soja’s concept of spatial (in)justice is returned to, and Roth’s ideas around cultural persistence are re-engaged with, in discussing the cultural and community programs taking place at CAP sites.

The chapter begins by examining federal and territorial policies in regards to CAP sites in Nunavut, providing some of the context for CAP and further thoughts on the important role played by government in the story of Nunavummiut internet access. The chapter moves to examining discourses of frustration as they relate to CAP, through the examination of narratives of CAP site administrators.

The chapter then explores discourses of potential, by focusing on how local CAP sites and their digital technologies have been used, according to informants, to facilitate cultural practices and experiences of community.

Focusing on CAP sites was a decision based on both methodological and theoretical grounds. In conversations with multiple Nunavummiut informants, CAP sites were mentioned as a necessary part of the provision of internet in the territory (Jeremy 2013: Interview; Liane 2013: Interview; Madeleine 2014: Nancy 2014: Interview; Raina 2014: Interview), pointing to ways that the physical spaces of internet access are part of the broader infrastructure of internet. Nunavummiut internet has ties and links to experiences of internet in other areas, particularly in the Global South and places considered to be on the less privileged side of the digital divide. Scholarship on internet consumption within digital divide literature has been attentive to the pivotal place of internet cafés and public access sites, as key to the provision of internet in regions where home internet access and smartphones are not the norm (Asaduzzaman 2013; Gurol and Sevindik 2007; Gurstein 2003, 2014; Hobbs and Bristow 2007; Hossain and Karan 2015; Taylor 2015). The literature on internet cafés, particularly on sites of public access in the Global South, indicates that while there are similarities, usually in terms of the kind of wired internet available to users (it is usually relatively expensive, unreliable, and slow, in keeping with how Nunavummiut internet users describe internet in their territory), there are also substantial differences between these sites that reflect the particular political, cultural, and socioeconomic contexts in which specific internet cafés and access sites are situated.

Gurol and Sevindik, for example, in their research on Turkey, found that internet cafés there are far more likely to be used by men (2007: 67); Taylor, in her research on Ghana, finds that the quality of an internet café can often be linked to the international mobility and networks of their owners (2015: 3); Hossain and Karan, in their research on internet cafés in Bangladesh discovered that internet cafés

there, often the result of private-public partnerships, tend to be more easily accessible to higher-income users (2015). In keeping therefore, with the feedback from informants (who claimed that CAP sites were pivotal to internet access for Nunavummiut) and in examining the literature on internet access in spaces where the quality of internet access is often described by users in terms similar to those employed by users of Nunavummiut internet, this project decided to focus on CAP sites. CAP sites were examined as key spaces of internet access in a region where access to internet for some users is problematic, and the specificities of these public access sites were probed for what they might say or reveal about Nunavummiut internet in particular.

CAP sites also seemed worthy of research because of the particular intersection of issues at which they stand, as spaces of everyday usage and public access, as community sites, and as linked with politics, due to their funding by governments. CAP sites provided a means for a consideration of internet at two different but related scales: from a macro view, CAP is a means for probing the politics of internet, in keeping with the interests of *Chapter 5: Fractious Collaborations*; but the sites themselves are local, based in communities and consequently provide portraits of lived experiences of access and usage, tying in the interests from *Chapter 4: "So frustrating"*. Though internet researchers sometimes choose to focus on either a macro or micro view, both are examined here, because, as Franklin has argued, the two scales are connected. She has written:

...the microcosms of everyday life and concomitant social relations and cultural practices can inform more macro-level analytical frameworks and abstract explanatory models (see Franklin 2001, 2003, 2004, 2007)...the intersection of the macroanalytical modes of reasoning used to apprehend global (for example, cross-border) political issues with micro-level modes such as those preferred in cultural studies remains largely underexplored... (Franklin 2013: 10).

While the focus in this chapter is at the level of territorial and federal political issues (as compared with Franklin's discussion of global politics), adopting Franklin's perspective has meant attempting to discern some links between how macropolitical decisions have constructed and affected CAP and the

kind of internet available in Nunavut, while also examining how experiences of usage can present grounded evidence of policy outcomes.

The Community Access Program (CAP): Macro-Perspectives

In the following section, some background on CAP is provided, with the objective of exploring specific federal and territorial decision-making regarding CAP sites, and linking these decisions to wider internet policy orientations.

Throughout this research project, informants reiterated that from their perspectives, the continued importance of CAP sites in Nunavut was due to the fact that a substantial portion of the territory's population did not have internet access at home (Brenda, Inuit Tapiriit Kanatami employee, 2013: Interview; Jeremy 2013: Interview; Liane 2013: Interview; Madeleine 2014: Interview; Naima 2014: Interview; Pauline 2014, Interview). CAP in Nunavut, therefore, fills gaps in access. This is an issue that can be at least partially traced, as discussed in *Chapter 5: Fractious Collaborations*, to the high cost of Nunavummiut internet due to its conveyance through satellites, the infrastructure chosen to provide internet in Nunavut because of a lack of other in-place communications infrastructure options (a lack that itself can arguably be attributed to historical patterns of decision-making and lack of infrastructural investment by the Canadian federal government).

CAP came to Nunavut in 2001 (although the program was started at the federal level in 1995) (Blanton 2014), before the introduction of broadband into the territory in 2005, with its funding provided by the federal government to local communities in Nunavut, so they could provide internet and computer access free of charge to their residents. Government funding was not given directly to specific communities. Instead, it went to an intermediary territorial organization called N-CAP, which then re-distributed the funds to local communities who applied for CAP site funding (N-Cap, Nunavut E-Association, n.d). N-CAP acted (and continues to act) as the go-between between government and local

communities. Of Nunavut's 25 communities, 20 currently have CAP sites (Faith, Government of Nunavut, 2014: Interview).³⁷

In the spring of 2012, the federal Conservative government ended federal funding for CAP sites across Canada. In announcing this decision, the government cited a study conducted by Statistics Canada which claimed that 79% of Canadians have access to internet at home (George 2012). However, the study cited contained no data from the Canadian North. Kim Crockatt, Director of the Nunavut Literacy Council and an N-CAP board member, said in response to the CAP cuts:

I believe the Prime Minister made a comment about the fact that most people now have computers and internet access at home. While that may be the case in the South, I know that is not our reality here in the North. Even if people have their own computers, the cost of internet here is such that most families cannot afford it (Crockatt in George 2012).

The federal government's decision-making in regards to CAP is in keeping with this thesis' argument that Nunavummiut internet is necessarily linked with discussions of space, and in particular, can be examined through Soja's lens of spatial (in)justice (2010). Cuts in funding to public access sites would have widened the gulf between those who have access to internet and those who do not, and in this case, the gulf would have been particularly widened between the South (where statistics seem to show there is high and widespread rates of internet access) and the North, including Nunavut. In cutting funding to a program that had benefits to Northern Canada, based on evidence drawn only from the South, on evidence that did not consider the circumstances of Nunavummiut, the federal government's decision would have furthered inequalities, in this case, in terms of internet access between the North and South, reinforcing a disparity that has a geographic corollary. And in its consultation solely of Southern circumstances, the appearance (at least) was given of the federal government prioritizing Southerners and their concerns.

³⁷ Because CAP sites require a certain amount of infrastructure (primarily, a building where the site and its equipment can be located and open to everyone in the community), not all Nunavummiut communities are able to host a site.

In the weeks that followed the federal government's decision, the territorial government of Nunavut announced a plan to keep CAP in place in Nunavut by funding it themselves.³⁸ The territorial government has been funding Nunavut's CAP sites since that time, and continue to use N-CAP as an intermediary (Bell 2012; Faith 2014: Interview), although as of 2016, N-CAP reported concerns about continuing to run CAP sites, citing a lack of sufficient volunteers (N-CAP Board, Nunatsiaq News 2016).

By considering the background of CAP sites, the reasons for their specific importance in providing internet access to Nunavummiut, and federal decision-making in regards to CAP, the Conservative federal government's approach to internet more broadly is clarified. The necessity of CAP for Nunavummiut communities (as articulated by informants for this project) can perhaps be traced to the federal practice of deregulation, which resulted in an internet in Nunavut that is slow, expensive and sometimes unreliable, because it was, as was argued in the previous chapter, insufficiently invested in. Subsequently, this orientation towards internet, this goal of funding internet at a minimum, led to a foreseeable end: the slashing of CAP from the federal budget as a means of further reducing federal government expenditures on internet. Perhaps unsurprisingly, the removal of CAP from the federal budget was cited as an issue by activists and advocates seeking to alter internet policy, in interviews (Liane 2013: Interview; Naima 2013: Interview) as well as at CRTC hearings on internet in the North (Review of basic telecommunications services, CRTC 2016 Transcript Vol. 2: 3292-3293). For

³⁸ Conflicting information was provided on this point. Most informants and press materials stated the Government of Nunavut provided the funding (Ezra 2014: Interview; Faith 2014: Interview; Jerry, CAP site coordinator, 2015: Interview). However, one informant (Naima 2014: Interview) stated that the Department of Aboriginal Affairs (a federal department, known as Indigenous and Northern Affairs since late 2015) offered to cover the costs of CAP with the help of Nunavut's territorial government, after the program was shut down. This informant said that at the press conference announcing that funds had been found to continue CAP, the Government of Nunavut "took all the credit", even though Aboriginal Affairs provides most of the funding (Naima 2014: Interview).

example, the GN mentioned the cuts to the CAP program when talking about the challenges of raising digital literacy within the territory:

... after the community access program stopped some of that function fell onto the territorial government to start providing innovative ways of providing that style of service back to the community... So we have continued to help support some of the community access program locations while we try to figure out the next step. Because after... the funding process for it sort of teetered off and now, we're at a point where we're trying to just – in Nunavut, we still need to bring that digital literacy level up – so trying to find the right – a way to do that (Review of basic telecommunications services, CRTC 2016 Transcript Vol. 2: 3292-3293).

The analysis of CAP therefore acts as a means for probing certain aspects of federal policy on internet; in particular, it provides evidence for how policies of deregulation have furthered the particular spatial (in)justices that are linked with internet access in Canada, as they manifest between Northern territories such as Nunavut and Southern Canadian cities.

Territorial Policy and CAP

Territorial policy regarding CAP provides some insight into the GN's internet priorities. Taking over the CAP program after the federal government discontinued its funding suggests that the GN wants Nunavummiut communities and residents to have access to the technology, but CAP policy in Nunavut also shows the importance accorded to community autonomy by the territorial government.

CAP in Nunavut currently functions in a decentralized manner. Every local CAP site in Nunavut has to provide computers and internet access, but beyond that, each site has freedom in terms of the programming, equipment and other projects its administrators want to offer (Faith 2014: Interview).

The lack of territory-wide standards has led to discussions, particularly among those on the board of N-CAP, about the benefits and drawbacks of this decentralized model. Naima, who works in the non-profit sector said:

...it's not very organized I really think it should be centralized, that they should have the same gear ... It's giving communities their autonomy but I think ... my not so generous assessment ... is that people just don't want to make the effort (Naima 2013: Interview).

Jerry who is involved in a local community CAP site, echoed Naima's ideas:

There's no centralised support or standard, no standard for their connectivity or software, so there's a lot of flexibility, but it also means that you have some CAP sites that are really great, and other CAP sites, they got some funding five years ago, they put in some computers ... these computers are hooked up to the internet, and these are not ... you really have a wide range of service ...in fact, it's maybe a bit chaotic.... I'd like to have a standard, but I don't know how it could be created (Jerry, CAP site coordinator, 2015: Interview).

The issue that Jerry noted during the interview, when talking about the difficulties of developing a standard, is that different CAP sites currently operate on different networks and according to different ethics. Some CAP sites use a government-provided link – but that means that there is a degree of censorship at those sites, because the territorial government has had strict policies about what can be looked at through their networks; all social media, for example, is banned from government networks. Some CAP sites administrators use the government link because it is faster than other networks, but Jerry notes that he would not use the government link, for ethical reasons. The point of a community access space, from his perspective, should be to facilitate users' access to information and those who cannot afford regular access to internet in their homes should not have a censored web as their alternative (Ezra 2014: Interview; Jerry 2015: Interview). These kinds of differences in ethics make the idea of developing a territory-wide standard seem challenging to those involved, even those who can appreciate its potential benefits.

On the issue of decentralization, Faith, who worked with the territorial government on CAP, had a different perspective from Naima and Jerry. When interviewed, she said that decentralization, rather than simply resulting in disparities between communities, means that each community has freedom and can make choices “per the community's needs, where they want to go, what kinds of training they specifically need” (Faith 2014: Interview).

At the territorial level then, the approach to internet is one that seeks to maintain the autonomy of communities (an approach started by the federal government but maintained by the GN) while, as discussed in the previous chapter, also ensuring their equality in terms of internet access (see *Chapter 5: Fractious Collaborations* for a discussion of the GN's prioritizing of parity among communities in Nunavut). These stances perhaps suggest the enduring discursive importance of local, physical communities to some in Nunavut (at least at the level of territorial, institutional politics) but one can argue that these policy choices also indicate a belief in the significance of internet as an economic and cultural tool. The GN's seeming conceptualization of internet is that it is an influential instrument; communities should therefore have as much freedom as possible in deciding how to use this influential instrument, how to use internet resources, such as CAP sites, to further their specific interests.

In previous chapters, Sandvig's notion of parity (2012) was discussed: the idea that when it comes to media infrastructures, indigenous peoples are often seeking parity of access and tools. The notion of parity has been drawn upon in this thesis, which has argued that the discourses of potential within which Nunavummiut internet users sometimes position their ideas about internet, though situated in a possible future, are discourses about parity; about having internet access on par (or more on par) with what is available to users in urban areas within Southern Canada. In *Chapter 5: Fractious Collaborations*, and in this chapter on CAP, the notion of parity has come up in a different sense: as articulated by the GN, parity of internet access between communities in Nunavut is important, as is community autonomy when it comes to digital resources provided at CAP centres. This suggests the GN is sensitive to the ways that spatial (in)justices might work; that unequal access to resources can lead to certain areas thriving while other communities do not. However, parity is not about enforcing same-ness in regards to any issue, save for the specific level of internet access and provision. In the GN's conception, it is about all communities having the same internet resources (and as stated in CRTC

hearings, about having the same internet resources as communities in the Canadian South – see *Chapter 5: Fractious Collaborations*), but also having the freedom to do what they want, to do what they deem best for their communities, to have autonomy over their digital resources.

The findings from this section on policy illustrate that, by examining the political background of CAP sites, exploring why these sites are considered necessary nodes in the distribution of internet in Nunavut, and using them to consider the broader politics of internet distribution and access, federal and territorial government orientations towards internet, particularly between the years 2006-2015, can be made clearer. In particular, policy in regards to CAP suggests that questions about governance in regards to internet, are not irrelevant. Governments, both at the territorial and federal levels as they relate to Nunavut, have played important roles in the implementation, funding and running of the territory's CAP sites – that is to say, that governments have played a key role in producing and maintaining pivotal nodes within the network of internet and wi-fi provision within Nunavut. It speaks to the continued power of government in Nunavut in the area of internet. While in some other areas where internet access is not ubiquitous, such as Bangladesh, governments have partnered with private corporations (Hossain and Karan 2015), or private corporations or small business owners manage the cafés or public access points (Taylor 2015; Wakeford 2003), in Nunavut, CAP remains largely within the domain of government: implemented and funded during earlier years by the federal government and currently funded and maintained by the territorial government. When it comes to internet in Nunavut, at least for now, contrary to the hopes of cyber-utopians who hoped for an internet free from governance (Barlow 1996), governments still have an (important) role to play in making internet accessible for Nunavummiut through CAP; and as evidenced from *Chapter 5: Fractious Collaborations*, the goal of telecommunications companies and various Nunavummiut internet activists has been to urge the federal government to participate more deeply in the provision of internet in the

North.

The Community Access Program (CAP) and Usage: Micro-Perspectives

CAP sites are not only the outcome of public policy; each individual site is also produced by, and provides space for the production of interactions, actions, and practices of those who use and administer the space. In this section, CAP is explored at a smaller scale – at the local level. Below, the researcher's experiences at the Iqaluit CAP site are discussed.

I spent over two weeks in Iqaluit in September 2014, and visited that community's CAP site on the days that it was open (every day except Sundays), for at least half an hour a day. During my visits, I observed users and participated in the site by using computers. I avoided looking at other people's screens, because I did not want to invade users' privacy, and so my observations centred on phenomena such as queues for computers, and the kinds of interactions users had at the site. Considering the decentralized nature of CAP, my experiences and observations at the Iqaluit site should not be taken as characterizing the way that CAP necessarily works in the rest of Nunavut.

The CAP site in Iqaluit is located within the city's library: on the same street as the city's museum, and inside the building that contains the Visitors' Centre. During my first day at the site (and in Iqaluit), I arrived late in the afternoon, after school had let out for the day, and the site was busy. All twenty computers were occupied, with a strong contingent of users appearing to be from the local secondary school. However, the other times that I went to the CAP site, it was during school hours and it was still busy – most or all of the computers would be occupied, no matter what time. So it appeared to me, and also from talking with staff and locals, that when the site in Iqaluit is open, it tends to be widely and regularly used (Ezra 2014: Interview; Madeleine 2014: Interview). Site employees told me that from their observations, the most popular online activities at the site are Facebooking, emailing and online poker (Ezra 2014: Interview).

On that first visit, I waited about twenty minutes for a computer, and then had twenty minutes to use it before ceding it to someone else. The site has a policy (though I did not ever see it enforced) that when there is a queue, individuals should only use the computers for a maximum of twenty minutes.

Considering the speed of internet in Nunavut at that time (2014), in twenty minutes, I was only able to sign into my email account (choosing the low-bandwidth setting called HTML view), send two short emails, and sign out.

In Iqaluit, the CAP site functions not only with the territorial funding, but also with a donated link from NorthwestTel, the telecommunications company. As Ezra, who is involved in the Iqaluit site, said:

We have a donated connection from NorthwesTel, if we did not have that donated connection, it'd be very dire straits. However we have a bandwidth limiter...Before they put the limiter on, they had some technicians come in because our network just disappeared, and they said that the CAP site was out of the control and eating up a lot of bandwidth, but what do you expect? There are 20 computers here, we're open five hours a day, you donated the connection, I don't know what you expect. But they put the limiter on, and presumably it's helping keep our bandwidth under control (Ezra 2014: Interview).

Those working at CAP sites that do not have a donated link and a bandwidth limiter said that during certain points in the month, if their sites exceed their bandwidth usage cap, the internet speeds at the site might be slowed down to dial-up levels (Olga, CAP site coordinator, 2015: Interview; Otto, CAP site coordinator, 2015: Interview).

Another observation from my time spent at the Iqaluit CAP site was that, in keeping with the public nature of the space, there was some degree of social interaction. Users greeted each other, chatted, sometimes surfed internet together (this was particularly the case for the adolescent crowd), this last example suggesting a kind of social internet usage. There were also people who quietly came in and used the computers in silence, but many users would at least say hello through a nod or briefly chat with acquaintances present. This observation echoes the work of Wakeford on internet cafés in London. Wakeford found that public spaces of internet access are not just for virtual sociality, but also facilitate

physical, face to face interactions. She writes: “Both CheapCall and Colours [internet cafés] are fittingly described as ‘places of sociability.’ Often the dominant forms of communication at each café were talking and looking, rather than computer interactions ...” (Wakeford 2003: 388).

Prior to my visit to Nunavut, I was told by one informant (who worked with the territorial government) that the CAP site in Iqaluit is mostly used by tourists (Faith 2014: Interview). However, my experiences, through observation and interviews, was that though there might be tourists and travellers who use it, the CAP site in the city is also heavily frequented by locals (Ezra 2014: Interview; Madeleine 2014: Interview), even locals who might have a subscription to internet at home. For example, when I arrived in Iqaluit, I found that internet at the place I was staying was not working. I had planned on using the CAP site as a place for participant-observation; I now needed the CAP site for my personal use. In conversations, I found that my experience was not unique. For many, even those with internet access at home, the occasional unreliability of their connections made the CAP site something they deemed indispensable to their community. For example, in an interview with Nancy, a Nunavummiut internet user based in Iqaluit, she stated that: “There was this time when my internet stopped working ...I went online at work, and if I was in the area, I’d sometimes go to the library [where the CAP site is located] to use the internet there” (Nancy 2014: Interview).

My time at the Iqaluit CAP site highlighted and reinforced some of the experiences and discourses of internet that informants had articulated during interviews (discussed in *Chapter 4: “So frustrating”*). In particular, I found myself empathizing with discourses of frustration, as they relate to Nunavummiut internet. CAP sites illustrate some of the issues and problems that Nunavummiut users often express when asked to describe their internet: the expense of Nunavummiut internet (CAP sites continue to be necessary because some Nunavummiut cannot afford a subscription to home internet); the unreliability of internet in Nunavut (why I and some others needed to use the site even though we should have had

access in our homes); its slowness; its bandwidth scarcity (hence the need for a limiter at the Iqaluit site). However, my experiences also suggested the ways that Nunavummiut internet has potential; in this case, CAP, as a space of internet, seemed to facilitate both access to technologies and face to face interactions, the public nature of the site providing the possibility for some in-person social interaction and connections among local internet users.

CAP and Usage: Common Issues and Frustrations

To get further perspective on CAP and discourses of experiences at these sites, five administrators working in different parts of the territory were interviewed. One interview was face to face, the other four were over the telephone, with interview times ranging from half an hour to an hour. During these interviews, these administrators spoke about the issues they face at CAP sites, reiterating discourses of frustration discussed throughout this thesis, in terms of how some of the issues associated with Nunavummiut internet impact their work.

Some of the CAP administrators stated during interviews that some of their work involved dealing with computer viruses. In charge of numerous computers connected to internet and surfed on a regular basis by a range of patrons with a range of computer skills, one CAP site administrator said that he found himself constantly dealing with viruses until they switched to Apple products (Otto 2015: Interview). Furthermore, break-ins were reported to be an issue. CAP sites are open quite frequently throughout the week, but they close for certain periods in the evenings and at night, and administrators in some communities said that at times, people would break in because they wanted to go online. As Otto, who works at a CAP site, said:

We also have break ins at night sometimes, and they're just because people want access to the internet and they're not necessarily doing anything wrong, but people know that there's access to the internet, and they will break in for that, they don't steal anything...(Otto 2015: Interview)

The kind of internet available at the sites was cited as an issue by interviewees, their issues with

internet echoing the frustrations voiced by users in *Chapter 4: “So frustrating”*. Its lack of speed was mentioned, as was the monthly bandwidth limit at most CAP sites outside of Iqaluit (Jerry 2015: Interview; Olga 2015: Interview; Otto 2015: Interview), which meant internet speeds at the sites would sometimes be slowed down to dial-up for parts of the month. Internet’s unreliability was also discussed. As Ezra said: “I’d say once or twice a month, we lose connectivity [at the CAP site] ... we’ll reset the modem, we’ll do this or that, and eventually it just comes back ...” (Ezra 2014: Interview).

Looking back to the earlier discussion of CAP sites and policy: CAP is seen as necessary in Nunavut because household access to internet is not ubiquitous. CAP is therefore meant to be a solution to some of the territory’s access issues. But in speaking with CAP site administrators, and in using the Iqaluit CAP site myself, many of Nunavummiut internet’s issues and frustrations which have emerged through interviews with both individual users and Nunavummiut internet advocates, can still be found at CAP: the slowness, the bandwidth limitations, the unreliability of internet. These are also issues of access, in the sense that they affect what can be accessed and accomplished online. CAP however, is useful, in mitigating the cost of internet for end-users, by providing internet and wi-fi free of charge to the public.

In terms of who used the sites, the administrators said that it was not necessarily one demographic, but that many community members from varying socio-economic backgrounds used CAP sites. There is perhaps a special interest from high school students; there are patrons who have internet at home but who come in when they have gone over their monthly bandwidth caps; there are patrons who have smartphones and devices and come to the site to utilize its wi-fi; and there are patrons who do not own devices and have no internet access in their homes (Ezra 2014: Interview; Jerry 2015: Interview; Olga 2015: Interview; Otto 2015: Interview). Otto mentioned that some of the CAP sites users might technically have a computer and an internet connection in the places they live but that this does not necessarily mean that they have access to internet or the computer in that space: “My gut feeling is that

in terms of households, houses are really crowded here, so there might be an internet connection ... there might be a computer, but that doesn't mean that everyone in the household has access to the computer" (Otto 2015: Interview).

Otto's discussion of crowded houses is a reference to the housing crisis affecting Nunavut. There is a lack of adequate housing infrastructure in Nunavut and over 3000 people (ten percent of the territory's population) are in need of social housing (Van Dusen 2015). One of the consequences is that many people live in rather packed circumstances. So the home or apartment where an individual is staying might have a computer and internet access, but considering the effort to coordinate between those who might want to use the computer, and potential issues around who is paying the bill, it might be simpler to use internet at the local CAP site. This example reinforces the idea that internet in Nunavut, and CAP sites as spaces of internet, are implicated within and structured by wider social and political issues.

CAP and Usage: Programming and Projects

CAP sites do not only act as spaces where individual residents can go online – they also receive funding for community projects and computer literacy programs. In looking at these community projects in particular, interviewees provided some narratives of Nunavummiut internet as potential, particularly for facilitating spaces for community and cultural initiatives. Below, a discussion of certain CAP site programs is presented.

The CAP site administrators interviewed all held computer literacy programs at their sites. However, community members did not seem particularly interested in coming in for these kinds of classes. Ezra said: "We have done some programming with our CAP site, but it's been less than successful. We basically wanted to do digital literacy workshops, very basicUnfortunately, people didn't seem to respond to that" (Ezra 2014: Interview). Otto reiterated this point, saying: "We used to try to do organized, 'hey come in at 3pm,' and that stuff doesn't really work ..." (Otto 2015: Interview).

According to interviewees, programming that was focused on using computers and internet for personal goals or entertainment tended to attract more patrons (Naima 2014: Interview) and showcased some of internet's potential, through its spaces of access. Olga, a CAP site administrator in a smaller community, mentioned that a resume-building program at her CAP site led to the creation of a job club, where community members looking for jobs get together to share advice and opportunities with each other. She, in turn, hires people from the job club when the CAP site needs new employees (Olga 2015: Interview).

Programming at CAP sites having to do with culture and community was reported to be quite popular. When Google came to the Iqaluit site to map out the city, there was a large attendance of Iqaluimmiut who participated in putting Iqaluit on Google Maps (Ezra 2014: Interview). In the community of Arctic Bay, the CAP site participated in a Traditional Naming Project. This project involved collecting and mapping traditional histories associated with locations, along with their GPS coordinates. Ron Elliot described The Traditional Naming Project in the report, *The Road We Travelled* (Nunavut E-Association 2011):

This project started by engaging the elders around Arctic Bay to come into the CAP site and look at maps of the surrounding area. The elders recorded their recollections of the histories of different areas as well as their traditional Inuktitut names. They made these recordings in both audio and video formats. Following that, hunters who were going out on the land on snow machines were loaned GPSs so that they could record the coordinates of each of these traditional places. Later, a photographer was sent out to take pictures of each of these places. Finally, using Google Earth and other software these locations were charted and by attaching the rich media collected (audio, video, digital photographs, etc.), the viewer could now gain knowledge of the local area (Ron Elliot in Nunavut E-Association 2011).

The final CAP sites to be mentioned are those located in Clyde River, which are some of the more famous CAP sites in the territory (Gearheard 2005). Otto spoke at length of how the Clyde River CAP sites fostered a local film production industry:

We run a lot of elders programs ...and we were recording that with tape recorders, and the elders were like, “why don’t we get a camera, and we can record with a camera ...” So we thought that was really cool because we had a bunch of youth working with the CAP site stuff who were getting into any new technology and cameras ... so we got a few cameras ...and we started asking our youth to go on the internet and learn how to use the cameras and they started to record ... the elders' programs.

And from there ... the youth got really good at it ...and ... there’s a film company [Piksuk Media] that also started ... and we teamed up with them. They would have a film project and our CAP site youth would work on that project as interns, as apprentices ... so we started to get real experience with real films ...and then we had a niche where ... we could then say we were one of the only film companies in Nunavut that could actually produce professional short movies, films, PSAs [public service announcements], in Inuktitut (Otto 2015: Interview).

As a result of having built this industry, the CAP site in Clyde River has been able to act as a source of skill development and employment for locals, while also providing the site with funds for its own use (Otto 2015: Interview).

The examples of these projects can perhaps be related to the territorial discourse of decentralization and community autonomy: given funding but also freedom to develop their own programs, CAP sites in Nunavut can be attentive to the interests of their local communities. Internet available in Nunavut has its share of issues and frustrations, and in particular, the expense of internet in Nunavut has to this point, rendered CAP sites necessary for many of the territory’s residents. However, one can also argue that the opportunities and potential to socialize and interact at CAP sites, the popularity and success of programs interested in mapping and naming local areas, and the development of an industry, speak to ways that Nunavummiut CAP sites are not solely seen by some of its users and administrators as spaces to access internet. CAP sites have also been constructed as spaces that can link internet in Nunavut with the local, physical community. The layers of sociality, of added communication, that the virtual aspects of internet can add to already strong ties have been documented by scholars such as Hampton and Wellman (2003), who have studied how digital technologies facilitate the furthering of bonds between those who are connected offline; CAP sites in Nunavut speak to the ways that Nunavummiut internet,

through its *physical* infrastructures, in this case, its spaces of access, is implicated in narratives and possibilities for creating new spaces and/or rationales for socializing, interacting, participating in projects and being together.

Tying this Chapter's Evidence to the Thesis's Overall Arguments

Andrew Blum's book *Tubes* (2012) was discussed in *Chapter 2: A Review of the Literature*. To re-summarize here, Blum insists that internet is rooted in physical space. It is built on connections in space, working through cables laid into the sea, fibre optic connections, telephone wires, routers and cell phone towers (2012). Through internet, one can visit virtual spaces, but a person always accesses internet through their physical body, using material infrastructures which are located within specific spaces, a point discussed by Wilken in his work on communities and tele-technologies (2011). Physical spaces are not external to internet, but essential to it, intrinsic to its workings. Studying spaces of internet, such as CAP sites, allows one to consider the conditions in which internet is used and upon which it exists – access to it happens within a certain place or places.

This chapter has used CAP sites as physical spaces of internet to further examine the ways that Nunavummiut internet is implicated in discourses of frustration and potential, for users and administrators of CAP sites. Narratives and experiences of Nunavummiut internet as frustrating recurred when discussing CAP, both because CAP is regarded as necessary because of the expense of Nunavummiut internet, and because internet's slow speeds, bandwidth scarcity and unreliability are experienced at CAP in ways similar to accounts of frustration described by home and work internet users in *Chapter 4: "So frustrating"*. CAP sites also added to discourses of potential in regards to Nunavummiut internet, by providing examples of cultural and community programs that show how internet, in itself and through its physical infrastructures and spaces, can act as tools and facilitators of local community projects and face to face interactions between community members.

CAP and Governance

Investigating CAP has provided a means for considering two different scales of Nunavummiut internet. CAP works and is constructed at both the micro and macro level; it is connected to both federal and territorial politics, as well as being situated within communities and utilized by individual users, and it provides a means for considering how these levels operate and interrelate. Decisions made at the level of policy (about funding, about standardization) impact the kinds of access and digital tools that CAP patrons have access to when using a CAP site. As with user discourses, the kinds of frustrations and issues experienced by CAP site users and coordinators (the slow speeds, the unreliability, the bandwidth scarcity at some CAP sites) can be linked with the decision-making and agenda-setting made at the level of politics. The experiences of frustration are often personal; and yet, even if the user does not explicitly tie their expressions of frustration to the decision-making of government, the context for those frustrations (as seen in *Chapter 5: Fractious Collaborations*), are linked with patterns of government decision-making. As a consequence, in examining CAP as both sites of politics and local usage, one can see the connections between experiences of frustration and government decision-making. And it can perhaps be argued that even if the various users themselves do not directly point at government when expressing their displeasure with internet access in Nunavut, that as the sources of their displeasure can ultimately be traced back to government policies, discourses of frustration, while positioned as being personal articulations, are by no means entirely apolitical.

CAP and the Faces of Nunavummiut Internet

Another central argument of this thesis has been reinforced in this chapter: that Nunavummiut internet is understood by its users to have multiple meanings and associations. Along with the aspects of Nunavummiut internet that emerged in the previous two research chapters (*Chapter 4: "So frustrating"*, *Chapter 5: Fractious Collaborations*), this chapter examines the ways that Nunavummiut

internet has acted, through its physical spaces such as CAP sites, as a site for community, as creating spaces for local social interactions, as a facilitator of employment opportunities (in Clyde River), and as a tool for cultural practices (in terms of its usage for cultural programs held at the sites). Further, the physical aspects of internet are underlined when examining CAP sites, because the CAP sites themselves, as spaces of internet, are arguably a necessary part of the infrastructure of Nunavummiut internet. CAP therefore suggests a view of Nunavummiut internet that is public, community and culturally-oriented, and spatial, whereas the chapter on user discourses, *Chapter 4: "So frustrating"*, suggested internet as more individual or work-based platform, centred on private usage. These different views and experiences of internet suggest the breadth of Nunavummiut internet and its multiple roles, within the lives of its users.

Part of Nunavummiut internet's complexity is that its definition is not necessarily agreed upon or universal, and so in examining the federal government's historical decision-making around CAP, one can again see (as in *Chapter 5: Fractious Collaborations*) a definition of internet as *not* a basic service (not in the same category as running water or the telephone). Internet is also positioned in this chapter as a space defined by freedom of information by some administrators such as Jerry (2015: Interview); as being stymieing and frustrating to its users at times, as well as discursively connected to the potential to offer some communities and individuals new opportunities for work, pleasure, and to participate in programs associated with their local communities. The study of CAP, in highlighting the housing issues in Nunavut (as noted earlier, some users might have internet access at home, but crowded housing might mean that they seek out the connections provided at CAP), and the conversations about community autonomy versus standardization, helps to showcase debates concerning internet that are specific to Nunavut, as well as the ways that Nunavummiut internet can be connected to broader social issues.

CAP and Nunavummiut Internet as Important and Linked to Spatial Issues

The importance of Nunavummiut internet is also reinforced in this examination of CAP. One can particularly see the ways that access to internet is narrated by various users and politicians as important, as discussions surrounding the cutting of funding to CAP, the kinds of passion managers feel about providing an uncensored internet to CAP site users and the account of break-ins at CAP sites so that users can access internet, illustrate. An examination of discourses of Nunavummiut internet can also lead one to have some perspective on what is important to informants. In the focus by some informants on the ways in which CAP sites have been spaces of not only internet access, but also popular community-centred programs, the importance of local community and cultures is underlined. This priority is also echoed by the territorial government's insistence on community autonomy when it comes to CAP. CAP therefore, could be argued to illustrate, to a certain extent, the continued importance of the local within Nunavut.

As with the findings of *Chapter 4: "So frustrating"* and *Chapter 5: Fractious Collaborations*, the ways in which Nunavummiut internet is connected to discourses of geography and space also emerge when focusing on CAP sites. The earlier discussion of federal policy focused on how cuts to CAP funding might have led to further spatial (in)justice for Nunavummiut. Beyond this, this chapter has demonstrated how Nunavummiut internet, through CAP sites, has been used as a tool for local, physical community, as a tool for space and mapping. In the examples discussed from Iqaluit and Arctic Bay, CAP projects that were notably popular with their communities were *about* the local area, about the communities themselves: their geographies, spatial representations, histories and names.

Béatrice Collignon has examined Inuit practices around place-naming and mapping in her research on the Western Canadian Arctic (2006). In the process of collecting place names, Collignon (2006: 199) interviewed elders who informed her that "*place names were not for travelling.*" So what are they for?

Collignon (2006: 199) writes: “My research ...made it clear that place names are a narrative about the land. They tell the story of the land and of its people ...And it is for their quality as narratives, as holders of an essential part of Inuit memory, that place names should be recorded ...”

Place names among the Inuit are therefore not asserted as claims to ownership or possession (as they often are in Western culture (Alia 1994). Inuit maps and place names are multi-dimensional, representing relations between the spatial, the temporal, between place, personal histories and community narratives. Nunavut CAP site projects therefore, that have focused on mapping and spatial representations sometimes use internet as a tool to emphasize the local land’s role and place within the community, and within Inuit cultural memory (see Ginsburg 2002 for a discussion of how Inuit use media for productions of cultural memory).

These projects concerning mapping speak to the ways in which Nunavummiut internet can be understood as a cultural internet, used for the particular community needs and in accordance with wider cultural practices. As discussed earlier in the chapter and throughout this thesis, when Nunavummiut internet users sometimes discuss the potential of their internet, this potential often centres on having an internet on par with internets available in Southern Canada. However, as evidenced by the CAP programs discussed above, though Nunavummiut might discuss having the same levels of access and similar tools, they want to use internet and digital technologies for a variety of purposes, some of which overlap with the interests of Southern Canadian internet users, and others of which are specific to their communities and cultures (Madeleine 2014: Interview; Pauline 2014: Interview). Therefore, Nunavummiut internet can be recognized as an internet implicated within and constructed by specific cultures and communities (as every internet is: see Franklin 2004; Goggin and McLelland 2009; Miller and Slater 2000); and its internet practices should be examined with reference to a range of factors, including cultural concerns.

In using CAP sites and the digital technologies available at these sites to participate in and create programs that have links with wider Inuit cultural practice, one can apply Roth's concept of *cultural persistence* to the usage of Nunavummiut internet at CAP sites. Roth has argued that First Peoples' have used media and media advocacy to alter policy frameworks, for political engagements, and to gain access to tools that can be used to maintain and further cultural and linguistic goals and practices (2005). In the face of resistance, often from governmental and institutional forces, Roth argues that indigenous peoples' campaigns for access to media, and their usage of media, can be understood as cases of cultural persistence. Employing Roth's ideas, the community and cultural programs at CAP sites can be understood as Nunavummiut internet users and communities using Nunavummiut internet for cultural purposes, and therefore provide examples of cultural persistence.

Conclusion

This chapter has examined evidence from CAP sites in Nunavut, looking at both the policy background that has structured CAP in the territory, as well as discourses of experiences at local CAP sites, the projects conducted at these sites, and the possibilities for interaction that CAP can facilitate. In analysing this evidence, this chapter has argued that CAP and CAP sites, as physical spaces of internet, and as part of the infrastructure of internet distribution in Nunavut, provide a lens for probing some of the narratives and debates that surround internet more broadly in the territory.

By tracing some of the connections between these physical spaces and internet, one can gain an understanding of how internet has been conceptualized at the level of policy (as a "non-necessity" by federal government and as a tool for community by the territorial government) and some of the consequences of these conceptualizations for internet in Nunavut. Nunavummiut internet issues and frustrations regularly manifest at CAP sites, illustrating the ongoing issues of internet in the territory, issues which can be linked to policy choices. Further, examining CAP provides a means for probing

how internet has been discursively understood to provide physical spaces new affordances, and the ways that these physical sites of internet offer potential for the promotion of, and engagement with, local and cultural practices.

In the following chapter, the thesis concludes by summarizing the main arguments and evidence provided in this research project, and explores some areas for further research based on this project's findings.

Chapter 7: Concluding Thoughts

Introduction

When discussing my research with those outside Nunavut, I often hear the question: “why internet?” In Southern Canada, the question was sometimes rooted in the idea that there are more pressing issues facing Nunavummiut that researchers should be attentive to: suicide rates, food insecurity, housing issues, cultural and language preservation. However, during my conversations with Nunavummiut, this question never arose. In fact, when they made comments on the subject of studying Nunavummiut internet, it was to express the necessity for further research in this area (Ezra 2014: Interview; Liane 2013: Interview; Madeleine 2014: Interview; Nancy 2014: Interview; Pauline 2014: Interview).

This thesis has explored narratives related to internet in Nunavut, and has examined what these discourses say about how internet in the territory is experienced, understood, advocated for, and defined by various Nunavummiut, with the goal of understanding some of the ways internet in Nunavut has been discursively constructed. One of the key findings from this research, emerging from probing user and advocate discourses, as well as government policy, is that internet in Nunavut is not a negligible issue for various Nunavummiut. It is seen as linked, complicit and implicated in other social issues (such as education), and as a tool that its users believe could be used to ameliorate or politically engage with wider social and cultural issues (such as cultural and linguistic preservation³⁹ and food insecurity⁴⁰). In the course of this research, a certain foundation upon which discourses of Nunavummiut internet’s failure and potential emerged: internet is seen by its users as a key issue, which is why its perceived failures and frustrations matter so much to its users, and why some Nunavummiut hope and advocate for internet in the territory to be improved.

³⁹ See *Chapter 6: A Local Connection* for descriptions of some community and cultural programs that have utilized Nunavummiut internet.

⁴⁰ As discussed in *Chapter 2: A Review of the Literature*, Scobie and Rodgers have examined usages of Nunavummiut internet for engagements with politics (2013). The page “Feeding My Children” is often cited as an example: <https://www.facebook.com/groups/239422122837039/>.

In this concluding chapter, the central arguments made by this thesis will be summarized. Key findings and key debates in which this research has been engaged will be returned to, with reflections on the future implications of this project's findings. In the final pages of this chapter, some areas for further research, suggested by this thesis's arguments and findings, are considered.

Back to the Beginning: Research Objective

To return to discussions started within *Chapter 1: Introduction*, this research began with an interest in examining the politics and inequalities surrounding Nunavummiut internet. However, it became clear that a focus exclusively on the political process, without any attention to the articulated experiences of users could create an unbalanced view of internet in the territory, potentially over-prioritizing the ideas of federal government officials and internet experts over the everyday experiences and discourses of Nunavummiut. Further, as discussed throughout this thesis, some of the potential for research on internet lies in its possibilities for bringing together macro and micro analyses; work that can examine both high-level internet politics, and its intersections with the everyday lives of individuals and communities, can elucidate the ways in which these spheres impact, influence and operate in relation to each other (Franklin 2013: 10). This thesis' approach to internet, one that welds the practice theory of Orlikowski (2000) with the considerations of power raised by Feenberg (2001) (see *Chapter 2: A Review of the Literature* for a discussion of this subject), understands internet as a product and process that connects with macroeconomic and political interests, as well as cultural and individual usage. Thus, it became clear that a thesis interested in understanding some of the ways that Nunavummiut internet was discursively constructed and the ways in which it was narrated, needed to engage with both policy and contestations of that policy, as well as individual articulations of Nunavummiut internet.

One goal in exploring various macro and micro discourses of Nunavummiut internet, in gaining

understanding of how Nunavummiut internet has been articulated, was to examine evidence for whether Nunavummiut internet should be further invested in: to assess how some of its users approached this internet, their sense of whether it met their needs, and the areas in which improvements were desired. Later in this chapter, on the basis of the arguments and key findings of this research, an argument will be made that Nunavummiut internet, should indeed be further invested in and its future planned for, by federal government in concert and consultation with Nunavummiut and Northern internet advocates and experts.

Thesis Arguments: A Summary

This thesis has made two main arguments about Nunavummiut internet. These arguments are that: internet in Nunavut encompasses a range of meanings and significances and these findings on Nunavummiut internet specifically complicate understandings of internet generally, suggesting the need for broader conceptualizations and engagements with the idea of internet; and that Nunavummiut internet is implicated in discourses of frustration and potential. These arguments and the evidence for these arguments will be summarized in turn, in the pages that follow.

Internet in Nunavut has a Range of Meanings and Perceived Purposes, Defying Easy Categorization or Definition

Following the argument that internet and other technologies are constructed by the practices of users (such as user discourses) as well as the policies and practices of the more powerful (such as government, and technical experts), this thesis builds upon the discourses of Nunavummiut internet examined and employed by informants during this research process to suggest that internet in Nunavut does not have a single definition, that it instead occupies a range of experiences, meanings and emotions, as well as temporalities.

In *Chapter 4: "So frustrating"*, Nunavummiut internet emerged through the voices of some of its users as variously: a technology for communication; a platform for education; as a space for banking and

finances; as failure and frustration; as a means to keep track of the news; as an obstacle to be planned around, when used for work and/or entertainment purposes; as requiring conservation; as having potential in the present; as having potential in the future, if altered, to be a source of economic development and cultural preservation; and as a place for various Inuit communities to engage in cultural practices. In *Chapter 5: Fractious Collaborations*, which examined federal policy in regards to Nunavummiut internet, the testimony of various Northern internet advocates at CRTC hearings, and the reports written by Northern broadband stakeholders, Nunavummiut internet was constructed as an object of federal politics and governance; as a technical, physical infrastructure (whose infrastructure was the subject of debate); as a basic service (for advocates); as a non-necessity (historically, for federal government); and as a reason for political action and engagement. Finally, in *Chapter 6: A Local Connection*, Nunavummiut internet was shown to be a tool for local community and culture; to provide physical spaces with new affordances or possibilities of action; to be tied to wider debates and issues about housing and community autonomy; to be a public good that some users might break into a CAP site for; and to be a space of information freedom for some. In all three research chapters, Nunavummiut internet is seen to live in multiple temporalities: it is understood for how it was constructed in the past (made clear through the narratives of internet advocates, who link the problematics of Nunavummiut internet with past federal policy); for what it accomplishes and does not accomplish in the present (as evidenced by user discourses of frustration and potential); and for having multiple, possible futures, depending on decisions made at the level of politics (or the possible investment decisions made by a major corporation such as Facebook or Google); and as discussed by internet advocates and users, for the ways that internet could be improved and the possibilities internet is imagined to have, if improved in the future. Internet in Nunavut is thus understood not only for what it is, but imagined for what it could be. Nunavummiut internet then, is a physical object; an idea; it is policy made manifest; it is online content that is currently consumed by Nunavummiut and online

content that Nunavummiut internet users would access more frequently if there were less restrictive bandwidth caps; it public and private, work and entertainment.

In bringing forth these different aspects and imaginings of internet, the Nunavummiut internet users, advocates, service providers and regulators interviewed for this project discursively construct internet as complex, dynamic, point to the multiple, interrelated elements and aspects of internet, and to the breadth of internet's implications in the lives of Nunavummiut.

Nunavummiut Internet is Implicated in Discourses of Failure and Potential

Over the course of 61 interviews, two prevalent discourses emerged: that Nunavummiut internet was problematic, that it sometimes failed its users, that it frustrated its users, and needed to be “worked around,” at times; and that Nunavummiut internet had potential (both in its current form, but particularly if it was altered and improved) to make a substantial contribution to improving and easing certain issues faced by Nunavummiut, as well as to provide Nunavummiut with economic, social, cultural and educational opportunities.

The discourse of frustration had several variations. Some informants simply emphasized that internet was problematic, and discussed the issues they had while using it (such as Nunavummiut internet being slow, unreliable, expensive and bandwidth-scarce). Other informants not only focused on the problems, but on the ways they tried to mitigate them utilizing discourses to discuss these practices that have been termed *conservation* and *planning ahead* in this thesis (See *Chapter 4: “So frustrating”*).

The discourse of Nunavummiut internet as potential, particularly revealed itself in the efforts of lobbyists and Northern internet stakeholders, who have advocated for federal government to provide more substantial funding for internet (see *Chapter 5: Fractious Collaborations*). In arguing for a more substantial, longer-term federal investment, Northern internet stakeholders articulate different plans by

which internet could be improved; they suggest possibilities for Nunavummiut and Northern internet to be more accessible and less frustrating to its users; and they state that Nunavummiut internet could be different, and could have greater functionality. Various Nunavummiut internet users have also articulated what they understand to be its potential, if improved, to provide the territory's residents with greater educational, cultural, economic and social opportunities, in statements that bring to mind the ICT4D paradigm, which understands digital technologies as "causing" areas to develop (Pick and Sarkar 2015). Nunavummiut internet users also point to the potential Nunavummiut internet has in the present, to ease financial issues (by allowing Nunavummiut all over the territory to bank, whether or not there is a brick and mortar bank in their local community) (Adam 2013: Interview; Naima 2014: Interview; Financial Services, NBDC 2006: 7-8); to provide distance-education; and to allow for the sharing of cultural knowledge and practices among Inuit (as discussed in *Chapter 4: "So frustrating"* in regards to the Facebook group Nunavut Hunting Stories and within *Chapter 6: A Local Connection*, in reference to mapping programs at CAP sites).

This discourse of potential, it has been argued in this thesis, is related to the correlated discourses of Nunavummiut internet as frustration, failure and requiring mitigation. Because Nunavummiut internet is often understood through its problems and defined to some extent by its users as issue-laden, the thought and hope of improvement is also often present in the idea that internet that is available in Nunavut is not the only possibility, that there are other internets that might be possible, that can be imagined. Internet does not only exist for its users as a technical object, defined by its present possibilities; in Nunavut, internet of the present suggests the hope of a future internet, an internet that for some, simply could be, and for others, should be.

This discourse in particular points to an argument about internet as an imaginary, as tied to hopes, fantasies, and particularly to projections which suggest an improved future. Technological imaginaries

are not exclusive to Nunavut: media researchers, as discussed in *Chapter 2: A Review of the Literature*, have explored and probed the ways in which media and technology are often related to discourses of utopianism as well as dystopianism (Kluitenberg 2011; Mosco 2004). Technologies have been seen throughout history, as acting as panaceas, as potentially being the gateway to more freedom, to happiness, to the potential abolishment of space and time.

What perhaps differentiates Nunavummiut internet as an imaginary, is the less fantastical nature of the imaginings compared with some historical precedents. If media archaeologists have been interested in exploring the almost magical properties that have been assigned to media and technology, and the fantastical technologies imagined by science-fiction writers which stoke the imagination of readers, the forms of imagination associated with Nunavummiut internet are of a somewhat less magical nature. This thesis has consistently drawn upon Sandvig's understanding of the desire for parity (2012) in relation to discussion of discourses of potential. In keeping with Sandvig's discussion of appropriation of technologies by indigenous communities, not as a form of rebellion but as a means of achieving parity, in the same way, the dreams that some Nunavummiut have regarding internet are multiple, but largely suggest the desire to have an internet that is on par with Southern Canada. Internet as an imaginary in the case of Nunavut, is not a dream of radical alterity; it is a hope for equivalence, for the same opportunities that other Canadian citizens have.

Key Findings

The arguments presented above were built on this thesis' four key findings. These findings are: 1) that Nunavummiut internet is understood simultaneously as an infrastructure, as a tool for communication, as an obstacle, as political, as potential, as cultural; 2) those seeking to alter internet in Nunavut at the level of federal politics have advanced their goals by collaborating in their usage of discourses in their interactions with the federal government; 3) the obstacles and potential of Nunavummiut internet are

sometimes expressed in terms of (or in reference to), spatial questions and issues as they relate to the geography of Nunavut and the “remoteness” of communities in the territory; 4) internet in Nunavut is considered to be important. In the pages below, these key findings will be briefly summarized.

Nunavummiut Internet is Understood as an Infrastructure, as a Technology for Communication, as Media, an Obstacle, as Political, as Potential, as Cultural

As discussed above, this thesis has argued that Nunavummiut internet is conceptualized in multiple ways, assigned multiple purposes and meanings, experienced in multiple locations (home, work, CAP sites), and encountered with a range of emotions (ranging from frustration to hope) by its users and by internet advocates. This argument has been made on the basis of the findings of how various Nunavummiut discursively describe and articulate their internet. Therefore, one of the key findings that this thesis has made, are some of the ways that Nunavummiut internet is understood. In *Chapter 4: “So frustrating”*, Nunavummiut internet is described as frustration, as an obstacle but also as potential; in *Chapter 5: Fractious Collaborations*, Nunavummiut internet is primarily positioned by policy-makers and its advocates in terms of infrastructure, and as a site for and a reason for political action, argumentation and engagement; in *Chapter 6: A Local Connection*, particular attention is paid to the ways that Nunavummiut internet has been discursively articulated as a tool for community and cultural practices. In all these chapters, Nunavummiut internet is understood as a technology for communication, and a media platform, a space for video, for news and information. It was on the basis of these findings of the particular ways that various Nunavummiut internet users articulate and describe their internet, that the argument was made that Nunavummiut internet defies easy definition, and that its boundaries are difficult to pin down.

Those Seeking to Alter Internet in Nunavut at the Level of Federal Politics Have Advanced Their Goals by Collaborating

In examining the efforts of lobbyists and internet stakeholders who have collaborated to campaign federal government for longer-term and more substantial investment in Nunavummiut internet (and

internet in other areas considered “rural and remote”), and in testimonies at CRTC hearings, it has been discovered that these various actors have sometimes collaborated. In examining their different goals and objectives, as outlined in *Chapter 5: Fractious Collaborations*, these players have varying visions of what Northern/Nunavummiut internet should be: how it should be funded, how much funding should be provided, and what kinds of infrastructure should be employed. However, in making their case to federal government, particularly since 2011, these actors have collaborated by writing joint reports and emphasizing the same “asks” at CRTC hearings: that the federal government should make internet a basic service, therefore deserving of a longer-term and more substantial investment from federal government, and that there should be a holistic plan for internet that stretches into the longer-term.

The collaborative efforts of Northern internet stakeholders can be understood as involving discourses of potential; these players are actively arguing for Nunavummiut internet’s improvement (for the furthering of its potential) and have done this by collaboratively presenting specific recommendations to federal government that would ameliorate some of the issues described by users: its slowness, its expense, its lack of reliability, its bandwidth scarcity. Their collaborations have been in service of (beyond other factors, such as the financial interests of some players) ideas about how to tap into Nunavummiut internet's potential.

The Frustrations and Potential of Nunavummiut Internet is Sometimes Expressed in Terms of or in Reference to, Spatial Questions and Issues

Questions of geography are raised both by Nunavummiut internet discourses of frustration and potential. Discourses of potential suggest that some Nunavummiut internet users believe that internet in Nunavut can be improved, that its current iteration is not at the limit of what internet could be, although it does have usefulness even in its current, limited state. In particular, as noted earlier, in the concrete ways that internet is imagined as improving, in terms of parity with Southern Canadians internet, there is an awareness by Nunavummiut internet users that their internet is not the same, that there are other,

less costly, faster, more reliable internets with more bandwidth, in other areas in Canada. The parity that some Nunavummiut internet users hope for, in regards to their internet, points to the spatial difference in internet access within Canada: between the North and remote areas of the country, as compared with urban, Southern spaces.

In discussing the reasons for why internet in Nunavut is problematic, within discourses of frustration, the issue of geography emerged in two ways. First of all, geography is sometimes cited as the reason why internet is problematic: Nunavut is far away, with difficult climactic conditions, making the building of infrastructure challenging and prohibitively expensive – hence the paucity of infrastructure of every kind in the territory – and this historical lack of investment is what has led to the problems in providing internet, as discussed in *Chapter 5: Fractious Collaborations*.

However, one can also argue that the historical lack of investment in infrastructure also creates problems of geography, or exacerbates those problems. If infrastructure, particularly transportation infrastructure is available in greater amounts to other areas of Canada but not in Nunavut, then while infrastructure in other areas can draw them closer, bridging distances, the lack of infrastructure in Nunavut helps further reinforce Nunavut's status as especially distant and remote – the lack of infrastructure helps to *define* Nunavut as “far away.” Claims that Nunavut is far away, making it difficult to invest in, then take on a more complex colour: because an argument could be made that the federal government, through its history of decision-making and policy-making, has contributed to constructing Nunavut as distant, an argument that draws upon Berland's interpretation of Innis, who argued that communications infrastructure were pivotal in constructing *spatial configurations of power* (2009).

Discourses of frustration and potential point to the inequality in Canada in relation to internet, and

discourses pertaining to geography point to the ways that this inequality, instead of being based only around technology, is also rooted in spatial questions. Nunavut's inequalities relative to other jurisdictions in Canada are based on historical factors, but as Edward Soja has noted, inequality also has spatial components, a concept he terms *spatial (in)justice* (2010). Some places have fewer opportunities, less investment than others – and the ways in which places such as the Canadian North, and in this case, Nunavut, are often at a disadvantage on numerous indicators compared with Southern Canada, speaks to an inequality that is made evident and is entrenched through space. The issues of internet, as related to geography, therefore speak not only to historical factors, but to the ways that inequality has been geographically manifested in Canada. In this case, internet acts as another way in which these spatial inequalities are made apparent, in which the differences between living in Northern and Southern Canada also lead to differences in access. This is not only a question of the politics of internet; it also suggests the way that activism relevant to Nunavut, including Nunavummiut internet activism, is seeking greater spatial justice.

Internet in Nunavut is Considered to be Important

As discussed in the introduction to this chapter, one of the findings from this thesis' research processes, has been that internet in Nunavut is not an issue of secondary status, but that for numerous informants, Nunavummiut internet (and its improvement) was considered an issue of great importance. Thus, it was argued by various users that the improvement of Nunavummiut internet was important because it could lead to broad economic benefits; that it could lead to educational opportunities. Oana Spinu, the director of the NBDC, argued at the 2013 CRTC hearing on NorthwesTel that pivotal to having strong, healthy communities in the North was the issue of linking these communities with a higher quality internet connection (Review of NorthwesTel CRTC 2013 Transcript Vol. 3: 4285-4288).

Part of this understanding of internet's importance can be tied to the wider history of Inuit media

activism. Madeleine Redfern stated in our interview that Inuit have long been a technological culture, adapting technology to their cultural practices and objectives (Madeleine 2014: Interview). As cited in *Chapter 2: A Review of the Literature*, anthropologists such as Ginsburg (2002) and Wachowich (2006) have studied how Inuit have used television, film and radio, among other media, for their communities' cultural and economic well-being. Roth's concept of cultural persistence has also been employed within this research – her argument that First Peoples' have persisted in living their values, principles and cultural practices, in the face of sometimes hostile forces, and that media advocacy and media usage are key modes by which First Peoples have culturally persisted (2005) has been used to contextualize Nunavummiut internet advocacy. There are multiple ways in which Nunavummiut internet has importance for Nunavummiut communities, but it has been reiterated in this research, that as with the media that came before it, some of internet's main potential and its importance, is arguably linked with its ability to facilitate and participate in the cultural persistence of Inuit peoples. The ways in which Nunavummiut internet users have employed internet to share cultural knowledge or for local community projects, as well as in the efforts of Northern broadband stakeholders, speak, this thesis has argued, to the ways that Nunavummiut continue to culturally persist, in this particular case, through and in relation to internet.

A Return to Key Debates

This research project situates itself within three academic debates. The first is whether internet should be understood as culture-specific; the second concerns the debate on the nature of internet; the third debate has to do with questioning who governs (and should govern) internet.

These debates were extensively discussed during the literature review and therefore will not be reviewed here (see *Chapter 2: A Review of the Literature* for an exploration of them). What the following section will do is examine the ways that this thesis' research and findings have either added

evidence to an already held position, or articulated a new position, within these debates.

To begin with the debate on the cultural nature of internet. This thesis argues that conceptualizations of Nunavummiut internet held by some of its users and advocates challenge and broaden ideas of what internet is. In Nunavut, internet might be an imaginary, might be seen as needing to be updated and improved upon; it is understood by many of its users by how it frustrates and requires practices of conservation and planning, it is a space for sharing stories about hunting, an object of politics, a tool for Inuit mapping practices. These combined ideas of internet would not necessarily travel well to, for example, Southern Canada. This is to argue, in keeping with the work of Miller and Slater (2000) and Goggin and McLelland (2009), that ideas and conceptualizations of internet vary by cultural practice, by user discourses in specific environments. Nunavummiut internet points to the cultural and geographic specificities of internets, to the ways that if internet varies by region and practices, then there might be more than one internet, that there are perhaps multiple, varying, local internets. As a consequence, this thesis adds to the literature which suggests that internet should be approached as cultural technology, its practices probed for their cultural specificity. Therefore, for example, solely considering internet usage practices in the West would be insufficient for developing theories of internet; how internet is used and what it means in other contexts and cultures must also be taken into account.

This leads into the debate on the nature of internet, and its definition. The cultural nature of internet suggests first of all, that there is not only one internet – and therefore, there cannot only be one definition of internet. If internet is multiple, then any one conceptualization of internet will necessarily only fit a particular set of circumstances and thus the specific circumstances of a place, the particular culture in which an internet is employed, and the particular temporalities of internet in a specific context, require consideration in any conceptualization of an internet. In considering Nunavummiut

internet, and in particular, the range of internet experiences of Nunavummiut across the territory (such as the difference in levels of access between a larger city such as Iqaluit versus smaller communities), one could argue that coming up with *a* conceptualization that captured the dynamism and complexities of Nunavummiut internet would be a challenging task. Thus, it can also be argued that even when conceptualizing internet within a specific culture or location, one's conceptualization would likely be partial.

This thesis therefore adds to the debates on the definition of internet by asserting that, based on the findings connected to Nunavummiut internet, internet is not fixed. Nunavummiut internet suggests the slipperiness of the concept of internet more generally, that internet, far from being solely a technology, or a platform, has a wider range of implications in the lives of its users and producers, that the complexities of relationships built between users, producers and internet mean that internet is not simply a technical object, but lives in relation to (and acts as counterpoint to) human actions and ideas. This research suggests the complicated nature of attempting to theorize internet, although the consequence of noting this complexity should not be to disengage with attempts to conceptualize it, but to instead aim for continual attempts to consider an internet's varying facets and faces. Adopting an approach that utilizes both macro and micro perspectives, as well as a range of methodologies, is increasingly a necessity for internet scholars; in keeping with Bruno Latour's work on actor-network theory (2005), technical objects and practices require the engagement of a broad range of disciplines, of ways of thinking, of theoretical positions and expertise.

Finally, in terms of the debates on internet governance, this thesis argues again for specificity: that the question of who should govern will vary by the state and region, but that governments still have roles to play. The particular needs and issues of a particular internet may require differing levels of government involvement, whether it be local, state, or international government. In Nunavut, in the

absence of other players with similar resources, the federal government still has a part to play. However, in light of the federal government's problematic history of decision-making in regards to infrastructure and policy in the North, this thesis argues that the federal government, in concert with Northern broadband stakeholders, and in consultations with Nunavummiut communities, should develop long-term plans for Nunavummiut internet. In light of this thesis' findings, it would add to the debate on internet governance, that questions of access, which are often shifted into the areas of ICT4D and the digital divide paradigms, should be made more central in conversations about internet governance, on equal footing with security, crime, freedom of information and trade. This is largely because there is the strong possibility that those who provide access, whether it is governments or corporations, will take the lead on regulating and controlling that particular internet.

Implications of this Research

After reviewing this thesis' arguments, key findings and returning to the debates in which this research is situated, this chapter now considers the implications of this research. What kinds of conclusions can be drawn as a result of this research? What recommendations, if any, might be given?

The first implication of this research is that Nunavummiut internet should be improved: it should be further invested in by the federal government (this is argued even with the September 2017 federal grant of \$50 million to NorthwesTel taken into account) and the federal government should commit to developing long-term plans connected with bridging the digital gaps between Northern and remote internets and those available to urban Southerners. The rationale for this recommendation is that various Nunavummiut users have articulated the ways in which they find their internet frustrating and stymieing and Northern broadband stakeholders have developed specific recommendations to improve this internet; and the differences between internet access in the North versus in the South of Canada speak to an inequality that cannot be ignored or minimized because various Northerners have made it

clear that internet, as with other media, is important to them and their communities.

As stated above, this further investment and planning around Nunavummiut internet should be done jointly with Nunavummiut broadband stakeholders and community representatives, so that the particular internet needs of Nunavummiut and their communities are met. The CRTC's 2016 ruling that internet (mobile and wired) should be considered a basic service is, this thesis argues, an important step forward. In terms of the particular ways that internet should be invested in and planned around, this thesis suggests that a collaborative plan developed by Nunavummiut broadband stakeholders would be a viable start. However, if asked to select from the specific plans put forward, this thesis would argue that the ideas of the NBDC, an organization that has been involved in the implementation of internet and acts as a digital watchdog in Nunavut, are of particular interest. The NBDC has argued that there should be a large upfront investment from the federal government to upgrade internet infrastructure across Nunavut to bring in fibre for all communities, and that there should be recurring funding provided by the federal government for the satellites (Review of basic telecommunications services, CRTC 2016 Transcript Vol. 2: 2037-2038, 2091). This plan allows for both greater parity between Nunavummiut internet and internet in the South (by having the main internet infrastructure switched from satellite to fibre), insists on parity between the territory's communities, and in its concern for the funding of satellites, shows an awareness of the need for infrastructural redundancy in the Arctic.

In the realm of academia, another implication of this thesis' research is that internet should be continuously re-approached, that any theorizing of internet will be temporary and partial, and that any attempts to develop a "general" conceptualization of internet that would be applied globally, would be problematic, due to the cultural nature of internet, as evidenced by the Nunavummiut internet. Internet scholars therefore, should be conscious of the multiplicity of internets in different settings, mindful of usage differences and infrastructural differences, when engaging with the concept of internet. In

particular, this thesis' evidence suggests being mindful of the ways that media disappoint their users and the ways that users mitigate those disappointments, as being a means for probing the complexities of technology-human relations.

A third implication of this research is the assertion that infrastructure and environment continue to be issues of importance when studying media and technologies. The history of policy-making in regards to infrastructure in Nunavut is key to understanding the kind of internet available in the territory, and therefore, also necessary for understanding discourses of internet articulated by Nunavummiut internet users. Advocacy around Nunavummiut internet is fundamentally, advocacy around infrastructure: arguments were presented for investments in current infrastructure (satellites) and new infrastructure (fibre optics) as a means of substantially improving internet experiences in Nunavut. This is an area that Lisa Parks and Nicole Starosielski (2015) as well as Maxwell and Miller (2012) have engaged with, and the evidence relevant to Nunavut adds to the growing chorus of those stating that media infrastructures, networks of provision, and questions of space, geography and environment, are key to grasping the ways in which media are engaged with and used, the kinds of relations that users develop with specific media platforms, and the meanings and emotions they associate with them.

Further Areas for Research

After reviewing the objectives, findings and arguments made in this project, this thesis concludes by suggesting further areas for research suggested by the work presented in these pages. These areas include: internet in Nunavut after 4G; an ethnography of Nunavummiut internet practices; and Nunavummiut internet in light of the CRTC's December 2016 decision to make internet a basic service and the federal government's \$50 million grant to NorthwesTel in 2017. A brief exploration of these areas is presented below.

Internet in Nunavut after 4G

When this research project began, mobile phone usage across Nunavut was uneven. Until 2016, only about half of Nunavut's communities were capable of supporting cellphone usage while in some of the larger communities, such as Iqaluit, 4G was available. As of 2017, SSi Micro has brought 4G into all of Nunavut's communities, and this may change the digital picture in the territory, including usages and experiences of internet. Cellphones that are internet-enabled are cheaper than computers, thereby making internet more easily available than if internet is only available through computers. Mobile internet means that those who cannot afford a household subscription, can still have access to internet on their own private devices, if they have access to wi-fi (altering perhaps, some of the perceived utilities of CAP sites in communities new to 4G). Further, some of the applications that work on phones do not require internet for more than an initial download, which has some added utility in a territory where internet available is still, at the moment of writing (September 2017), problematic. In short, the introduction of 4G will necessitate an investigation into the new meanings, practices, discourses and issues that Nunavummiut users encounter when they utilize 4G mobiles to go online.

An Ethnography of Internet Usage Practices

In keeping with the work of David Morley (1998) and Ien Ang (1996), who altered media research with their focus on media consumption practices, an ethnography of internet practices in Nunavut would have the potential to bring to the fore the ways in which broader Inuit cultural practice might intersect, impact and construct how internet is being used in the territory – not only in terms of the kind of digital content that is being created, but *how* that content is created by producers and consumed by users. Such an endeavour would require a researcher who could gain access to users' homes, workspaces, educational spaces, and be allowed by users to watch them, as they went online, to observe their activity. The benefits would be not only a deeper understanding of how internet is used in Nunavut, but might also shed further light on the ways in which Inuit communities might make internet their own – the ways they might be making internet more Inuit.

Nunavummiut Internet in Light of the CRTC's Decision to Make Internet a Basic Service and the 2017 Grant to NorthwesTel

This research was conducted largely between 2013-2015, but in December 2016, the CRTC made the decision to categorize high-speed internet access (both wired and mobile) as a basic service that should be accessible to all Canadians, and mandated the creation of a fund to support the upgrading of infrastructure and services in areas where the standard for high-speed access are not currently met. Then, in 2017, the federal government announced a \$50 million grant to NorthwesTel, specifically for the upgrading of Nunavut's internet backbone.

In light of these decision, the nature of Nunavummiut internet, its infrastructure and the experiences of Nunavummiut internet users could change, making this research a time capsule that captures certain dynamics of the early Nunavummiut internet and the fight to have that internet altered. Researchers should continue to follow the development of Northern internet politics, because progress is not necessarily inexorable. Further, if internet in Nunavut is substantially improved, then every area of that internet will need to be returned to from a research perspective, from its infrastructure, to production practices, usage practices, spaces of access (do CAP sites continue to be necessary?), economic consequences, its cultural and linguistic uses, and the discourses that this new Nunavummiut internet might elicit from its users. Technologies, such as Nunavummiut internet, are always changing because their users are dynamic; in light of recent decisions, particularly the 2016 CRTC decision, the speed of that change in Nunavut may well be dramatic.

Works Cited

- Abdulla, R. A. (2007). *The Internet in the Arab world: Egypt and Beyond*. New York: Peter Lang.
- About Us. (2017, October 17). *Canadian Radio-Television and Telecommunications Commission (CRTC)*. Web. Accessed 20 December 2017. Retrieved from: <http://www.crtc.gc.ca/eng/acrtc/acrtc.htm>
- Abu-Lughod, L. (2004). *Dramas of Nationhood: The Politics of Television in Egypt*. Chicago: University of Chicago Press.
- Akeshoo, A. & MacNeill, N. (1974, January 22). *Public Hearing CRTC 96*.
- Akrich, C. & Latour, B. (1992). A Summary of a Convenient Vocabulary for the Semiotics of Human and Nonhuman Assemblies. In W. E. Bijker & J. Law (Eds.), *Shaping Technology/Building Society: Studies in Sociotechnical Change* (pp. 259-264). Cambridge: MIT Press.
- Alexander, C. J., Adamson, A., Daborn, G., Houston, J. & Tootoo, V. (2009). Inuit Cyberspace: The Struggle for Access for Inuit *Qaujimajatuqangit*. *Journal of Canadian Studies/Revue d'études canadiennes*, 43(2), 220-249.
- Alia, V. (1994). *Names, Numbers and Northern Policy: Inuit, Project Surname and the Politics of Identity*. Halifax: Fernwood Publishing.
- Andreasson, K. (Ed). (2015). *Digital Divides: The New Challenges and Opportunities of E-Inclusion*. Boca Raton: CRC Press.
- Ang, I. (1996). *Living Room Wars: Rethinking Media Audiences for a Postmodern World*. London: Routledge.
- Arctic Communications Infrastructure Assessment Report. (2011, April 30). *A Matter of Survival: Arctic Communications Infrastructure in the 21st century*. Northern Communications & Information Systems Working Group. Web. Accessed 18 October 2012. Retrieved from: <http://www.aciareport.ca/>
- Asaduzzaman, A. S. M. (2013). *Digital Bangladesh: Information and Communication Technology for Empowerment?* Doctoral Thesis. Goldsmiths, University of London.
- Bal, M. (2002). *Travelling Concepts in the Humanities: A Rough Guide*. Toronto: University of Toronto Press.
- Barlow, J. P. (1996, February 8). A Declaration of the Independence of Cyberspace. *Electronic Frontier Foundation*. Web. Accessed 4 November 2017. Retrieved from: <https://www.eff.org/cyberspace-independence>
- Baumann, G. (1996). *Contesting Culture: Discourses of Identity in Multi-Ethnic London*. Cambridge: Cambridge University Press.

- Bell Internet Packages. (n.d). *Bell Canada*. Web. Accessed 23 June 2016. Retrieved from:
http://www.bell.ca/Bell_Internet/Internet_access
- Bell, J. (2002, March 29). Time to Narrow the Digital Divide. *Nunatsiaq News*. Web. Accessed 8 March 2014. Retrieved from:
http://www.nunatsiaqonline.ca/stories/article/time_to_narrow_the_digital_divide/
- Bell, J. (2012, May 25). Nunavut steps in to save free public internet sites. *Nunatsiaq News*. Web. Accessed 18 September 2015. Retrieved from:
http://www.nunatsiaqonline.ca/stories/article/65674nunavut_steps_in_to_save_free_public_internet_sites/
- Bell, J. (2012, September 24). Arctic Undersea Cable Could End Nunavut's Dependence on Satellite. *Nunatsiaq News*. Web. Accessed 8 March 2013. Retrieved from: http://www.nunatsiaqonline.ca/stories/article/65674arctic_undersea_cable_could_end_nunavuts_dependence_on_satellites/
- Bell, J. (2013, August 22). Arctic Fibre Inc. Picks Iqaluit Cable Landing Spot. *Nunatsiaq News*. Web. Accessed 7 June 2014. Retrieved from
http://www.nunatsiaqonline.ca/stories/article/65674arctic_fibre_inc._picks_iqaluit_cable_landing_spot
- Berland, J. (2009). *North of Empire: Essays on the Cultural Technologies of Space*. Durham: Duke University Press.
- Bird, S. E. (2003). *The Audience in Everyday Life: Living in a Media World*. London: Routledge.
- Blanton, C. (2014). The Cancellation of the Community Access Program and the Digital Divide(s) in Canada: Lessons Learned and Future Prospects. *Journal of Community Informatics*, 10(2). Web. Accessed 12 December 2017. Retrieved from:
<http://cijournal.net/index.php/ciej/article/view/1014/1104>
- Blum, A. (2012). *Tubes: Behind the Scenes at the Internet*. London: Viking.
- Bolter, J. D. & Grusin, R. (1999). *Remediation: Understanding New Media*. Cambridge: MIT Press.
- Braun, H. J. (1992). Symposium on 'Failed Innovations': Introduction. *Social Studies of Science*, 22(2), 213-230.
- Briggs, C. L. (1983). Questions for the Ethnographer: A Critical Examination of the Role of the Interview in Fieldwork. *Semiotica*, 46, 233-261.
- Briggs, C. L. (1984). Learning How to Ask: Native Metacommunicative Competence and the Incompetence of Fieldwork. *Language in Society*, 13, 1-28.
- Brinkmann, S. (2013). *Qualitative Interviewing: Understanding Qualitative Research*. Oxford: Oxford

University Press.

- Bromwich, J. E. (2016, May 24). Bulletin! The “Internet” is About to Get Smaller. *The New York Times*. Web. Accessed 12 October 2017. Retrieved from: https://www.nytimes.com/2016/05/25/business/media/internet-to-be-lowercase-in-new-york-times-and-associated-press.html?_r=0
- Building of Qiniq Network. (n.d). *Nunavut Development Broadband Corporation*. Web. Accessed 4 March 2014. Retrieved from: <http://nunavut-broadband.ca/projects/building-qiniq-network>
- Canadian Income Survey, 2015. (2017, May 26). *Statistics Canada*. Web. Accessed 4 November 2017. Retrieved from: <https://www.statcan.gc.ca/daily-quotidien/170526/dq170526a-eng.htm>
- Castells, M. (2010). *The Rise of the Network Society: The Information Age: Economy, Society, Culture Volume 1*. Oxford: Wiley-Blackwell.
- Charmaz, K. (2011). Grounded Theory Methods in Social Justice Research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE Handbook of Qualitative Research* (pp. 359-380). Thousand Oaks: SAGE.
- Christensen, N. B. (2003). *Inuit in Cyberspace: Embedding Offline Identities Online*. Copenhagen: Museum Tusulanum Press.
- Collignon, B. (2006). Inuit Place Names and Sense of Place. In P. Stern & L. Stevenson (Eds.), *Critical Inuit Studies: An Anthology of Contemporary Arctic Ethnography* (pp. 187-205). Lincoln: University of Nebraska Press.
- Couldry, N. (2010). Theorising Media as Practice. In B. Brauchler & J. Postill (Eds.), *Theorising Media and Practice* (pp. 35-54). Oxford: Berghahn.
- Cox, D. J. (1989). National High Performance Computer Technology Act: SIGGRAPH and national high-tech public policy issues. *Computer Graphics*, 23(4), 275-279.
- Cullen, R. (2001). Addressing the Digital Divide. *Online Information Review*, 25(5), 311-320.
- Curran, J. (2012). Reinterpreting the Internet. In J. Curran, N. Fenton and D. Freeman, *Misunderstanding the Internet* (pp. 3-33). Abingdon: Routledge.
- Curran, J, Fenton, N. & Freedman, D. (2012). *Misunderstanding the Internet*. Abingdon: Routledge.
- Damas, D. (2002). *Arctic Migrants/Arctic Villagers: The Transformation of Inuit Settlement in the Central Arctic*. Montreal/Kingston: McGill-Queen’s University Press.
- Damas, D. & Helm, J. (1963). The Contact-Traditional All Native Community of the Canadian North: The Upper Mackenzie “Bush” Athapaskans and the Igluligmiut. *Anthropologica N.S.*, 5(1), 10-21.

- Davison, E. & Cotton, S. (2003). Connection Discrepancies: Unmaking Further Layers of the Digital Divide. *First Monday*, 8(3). Web. Accessed 13 November 2017. Retrieved from: <http://firstmonday.org/ojs/index.php/fm/article/view/1039/960%29%2A%2A>
- Deakin, H & Wakefield, K. (2014). Skype Interviewing: Reflections of Two PhD Researchers. *Qualitative Research*, 14(5), 603-616.
- De Certeau, M. (1984). *The Practice of Everyday Life*. Berkeley: University of California Press.
- Deibert, R. J. (2013). *Black Code: Inside the Battle for Cyberspace*. Toronto: McClelland & Stewart.
- Denzin, N. K., Lincoln, Y. S. & Giardina, M. (2006). Disciplining Qualitative Research. *International Journal of Qualitative Studies in Education*, 19, 769-782.
- Dibbell, J. (1993, December 23). A Rape in Cyberspace. *The Village Voice*. Web. Accessed 2 April 2016. Retrieved from: <http://www.villagevoice.com/news/a-rape-in-cyberspace-6401665>
- Digital Canada 150. (2014, April 4). *Industry Canada*. Web. Accessed 10 April 2014. Retrieved from: <http://www.ic.gc.ca/eic/site/028.nsf/eng/home>
- DiMaggio, P. & Hargittai, E. (2001). From the “Digital Divide” to “Digital Inequality”: Studying Internet Use as Penetration Increases. *Center for Arts and Cultural Policy Studies*, Princeton University. Working Paper. Web. Accessed 18 November 2017. Retrieved from: <https://www.princeton.edu/~artspol/workpap15.html>
- Donath, J. A. (1999). Identity and Deception in the Virtual Community. In M. A. Smith & P. Kollack (Eds.), *Communities in Cyberspace* (pp. 27-59). New York: Routledge.
- Duffy, R. Q. (1988). *The Road to Nunavut: The Progress of the Eastern Arctic Inuit since the Second World War*. Montreal: McGill-Queen’s University Press.
- Dugdale, A., Daly, A., Papandrea, F. & Maley, M. (2005). Accessing e-government: challenges for citizens and organizations. *International Review of Administrative Sciences*, 71(1), 109-118.
- Eglash, R., Croissant, J. L., Di Chiro, G., & Fouché, R. (Eds.). (2004). *Appropriating Technology: Vernacular Science and Social Power*. Minneapolis: University of Minnesota Press.
- Facebook drone could one day provide global internet access. (2017, July 2). *Associated Press*. Web. Accessed 8 October 2017. Retrieved from: <http://www.businessinsider.com/ap-facebook-drone-could-one-day-provide-global-internet-access-2017-7>
- Fairclough, N. & Wodak, R. (1997). Critical discourse analysis. In T. van Dijk (Ed.), *Discourse as Social Interaction: Discourse Studies: A Multidisciplinary Introduction. Vol. 2* (pp. 254-284). London: SAGE.
- Farmer, R. F., Morningstar, C. & Crockford, D. (1994). From Habitat to Global Cyberspace. *Electric*

Communities. Web. Accessed 5 November 2017. Retrieved from:
<http://aom.jku.at/archiv/cmc/text/farmer.94.txt>

Feeding My Family. (n.d). *Facebook* (Group). Web. Accessed 18 December 2017.
Retrieved from: <https://www.facebook.com/groups/239422122837039/about>

Feenberg, A. (2001). *Questioning Technology*. New York: Routledge.

Financial Services: Banking with Broadband. (2006, March 31). *Nunavut Broadband Development Corporation*. Web. Accessed 15 January 2014. Retrieved from:
<http://nunavut-broadband.ca/projects/financial-services-banking-broadband>

Fine, M. (1994). Working the Hyphens: Reinventing Self and Other in Qualitative Research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE Handbook of Qualitative Research* (pp. 70-82). Thousand Oaks: SAGE.

Foucault, M. (1972). *The Archaeology of Knowledge*. London: Routledge.

Franklin, M. I. (2004). *Postcolonial Politics, the Internet, and Everyday Life: Pacific Traversals Online*. Abingdon: Routledge.

Franklin, M. I. (2009). Who's Who in the "Internet Governance Wars: Hail the Phantom Menace?". In Giampiero Giacomello and Johan Eriksson (Eds.), *Who Controls the Internet? Beyond the Obstinacy or Obsolescence of the State*. *International Studies Review*, 11(1), 221-226.

Franklin, M. I. (2013). *Digital Dilemmas: Power, Resistance and the Internet*. Oxford: Oxford University Press.

Fremeth, H. (2003). *The Creation of Telesat: Canadian Communication Policy, Bell Canada and the Role of Myth (1960-1974)*. Master's Thesis. School of Communication: Simon Fraser University.

Frizzell, S. (2017, September 17). Competitive cell service coming to all Nunavut communities by 2019. CBC News. Web. Accessed October 2, 2017. Retrieved from:
<http://www.cbc.ca/news/canada/north/cell-service-nunavut-communities-1.4296826>

Fuchs, C. & Horak, E. (2008). Africa and the Digital Divide. *Telematics and Informatics*, 25(2), 99-116.

Galloway, A. R. (2004). *Protocol: How control exists after decentralization*. Cambridge: MIT press.

Gates, B. (1995, December 6). To Make a Fortune on the Internet, Find a Niche and Fill it. *Seattle Post-Intelligencer*, p. B4.

Gearheard, S. (2005). Using Interactive Multimedia to Document and Communicate Inuit Knowledge. *Études/Inuit/Studies*, 29(1-2), 91-114.

- George, J. (2012, April 20). Ottawa takes the axe to Nunavut community internet access. *Nunatsiaq News*. Web. Accessed 20 September 2015. Retrieved from: http://www.nunatsiaqonline.ca/stories/article/65674ottawa_takes_the_axe_to_nunavut_community_internet_access/
- Get Connected. (n.d). *Nunavut Broadband Development Corporation*. Web. Accessed 15 June 2016. Retrieved from: <http://www.nunavut-broadband.ca/nunavut-ict/get-connected>
- Gibson, W. (1984). *Neuromancer*. New York: Ace.
- Giddens, A. (1984). *The Constitution of Society: Outline of the Theory of Structuration*. Cambridge: Polity Press.
- Gilder, G. (1994). *Life After Television*. New York: Norton.
- Ginsburg, F. D. (2002). Screen Memories: Resignifying the Traditional in Indigenous Media. In F. D. Ginsburg, L. Abu-Lughod & B. Larkin. (Eds.), *Media Worlds: Anthropology on a New Terrain* (pp. 39-57). London: University of California Press.
- Glaser, B. G. & Strauss, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York: Aldine Publishing Company.
- Goggin, G. & McLelland, M. (2009). Internationalizing internet studies: beyond anglophone paradigms. In G. Goggin & M. McLelland (Eds.), *Internationalizing internet studies: beyond anglophone paradigms* (pp. 3-18). Abingdon: Routledge.
- Goldsmith, J. & Wu, T. (2008). *Who Controls the Internet? Illusions of a Borderless World*. Oxford: Oxford University Press.
- Gore, A. (1994, March 21). VP Remarks. *International Telecommunications Union*. Web. Accessed 4 November 2017. Retrieved from: https://clintonwhitehouse1.archives.gov/White_House/EOP/OVP/html/telunion.html
- Grossman, L. K. (1995). *The Electronic Republic: Reshaping Democracy in the Information Age*. New York: Viking.
- Gürol, M. & Sevindik, T. (2007). Profile of Internet Cafe users in Turkey. *Telematics and Informatics*, 24, 59-68.
- Gurstein, M. (2003). Effective Use: A Community Informatics Strategy Beyond the Digital Divide. *First Monday*, 8(12). Web. Accessed 18 December 2017. Retrieved from: <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1107/1027>.
- Gurstein, M. (2014). Smart Cities vs. Smart Communities: Empowering Citizens Not Market Economics. *The Journal of Community Informatics*, 10(3). Web. Accessed 18 December 2017.

Retrieved from: <http://www.cijournal.net/index.php/ciej/article/view/1172/1117>

- Hale, C. & Scanlon, J. (1999). *Wired Style: Principles of English Usage in the Digital Age*. New York: Broadway Books.
- Hampton, K. & Wellman, B. (2003). Neighboring in Netville: How the Internet Supports Community and Social Capital in a Wired Suburb. *City and Community*, 2(4), 277-311.
- Harvey, D. (1989). *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change*. Cambridge: Blackwell.
- Heeks, R., Foster, C. & Nugroho, Y. (2014). New Models of Inclusive Innovation for Development. *Innovation and Development*, 4(2): 175-185.
- Herring, S. C. (2015, October 19). Should You be Capitalizing The Word “Internet”? *Wired*. Web. Accessed 4 July 2017. Retrieved from: <https://www.wired.com/2015/10/should-you-be-capitalizing-the-word-internet/>
- Hicks, J. & White, G. (2000). Nunavut: Inuit Self-Determination Through a Land Claim and Public Government. In J. Dahl, J. Hicks & P. Jull (Eds.), *Nunavut: Inuit Regain Control of Their Lands and Their Lives* (pp. 30-115). Copenhagen: International Work Group For Indigenous Affairs.
- Hobbs, J. & Bristow, T. (2007). Communal Computing and Shared Spaces of Usage: A Study of Internet Cafes in Developing Contexts. *ASIS & TIA Summit*. Las Vegas, 22-26.
- Hossain, M. D., & Karan, K. (2015). Users and Uses of Internet Access Points in Bangladesh: A Case Study of Community Information Centers (CICs). *The Journal of Community Informatics*, 11(1). Web. Accessed 12 December 2017. Retrieved from: <http://ci-journal.net/index.php/ciej/article/view/1043/1132>
- Hot, A. (2010). L’appropriation communautaire des médias au Nunavut : l’exemple du site de réseaux sociaux Bebo. *Les Cahiers de CIÉRA*, 5, 53-74.
- Huhtamo, E. & Parikka, J. (Eds.). (2011). *Media Archaeology: Approaches, Applications and Implications*. Oakland: University of California Press.
- Hutchby, I. (2001). Technologies, Texts and Affordances. *Sociology*, 25(20), 441-456.
- ICT. (2010, January 4). *TechTerms*. Web. Accessed 6 November 2017. Retrieved from: <https://techterms.com/definition/ict>
- Income support in Nunavut: “It’s a very stressful life”. (2014, April 7). *CBC News*. Web. Accessed 7 November 2017. Retrieved from: <http://www.cbc.ca/news/canada/north/income-support-in-nunavut-it-s-a-very-stressful-life-1.2600787>
- Infrastructure II. (n.d). *Nunavut Development Broadband Corporation*. Web. Accessed 4 March 2013.

Retrieved from: <http://www.nunavut-broadband.ca/projects/infrastructure-ii>

Innis, H. A. (1951). *The Bias of Communication*. Toronto: University of Toronto Press.

Internet Definition. (2005, December 30). *The Linux Information Project*. Web. Accessed 4 September 2017. Retrieved from: <http://www.linfo.org/internet.html>

Internet Packages. (n.d). *Northwestel*. Web. Accessed 23 June 2016. Retrieved from: <http://www.nwtel.ca/shop/internet/plans-rates/iqaluit>

Internet Rights & Principles Coalition. (2014). *The Charter of Human Rights and Principles for the Internet*. United Nations Internet Governance Forum.

Inuit and Europeans. (n.d). *Inuit Tapiriit Kanatami*. Web. Accessed 10 March 2014. Retrieved from: <https://www.itk.ca/about-inuit/inuit-and-europeans>

Itocheak, A. (2012). Keynote. 2012 Nunavut ICT Summit. *Nunavut Broadband Development Corporation*. Web. Accessed 23 May 2015. Retrieved from: <http://www.qfile.ca/p/42424/Workspaces/ICT%20Summit/Adamee%20keynote.pdf>

Jackson, E. (2017, September 14). Ottawa invests \$50 Million in Nunavut's backbone satellite internet network. *Financial Post*. Web. Accessed 4 October 2017. Retrieved from: <http://business.financialpost.com/telecom/ottawa-invests-50-million-in-nunavuts-backbone-satellite-internet-network>

Jenkins, H. (2006). *Convergence Culture: Where Old and New Media Collide*. New York: New York University Press.

Johnson, D. R. & Post, D. G. (1996). Law And Borders: The Rise of Law in Cyberspace. *Stanford Law Review*, 48, 1367.

Jolles, C. Z. (2006). Listening to Elders, Working with Youth. In P. Stern & L. Stevenson (Eds.), *Critical Inuit Studies: An Anthology of Contemporary Arctic Ethnography* (pp. 35-53). Lincoln: University of Nebraska Press.

Jorgensen, M. & Phillips, L. (2002). *Discourse Analysis as Theory and Method*. London: SAGE.

Josselson, R. (2013). *Interviewing for Qualitative Inquiry: A Relational Approach*. New York: The Guilford Press.

Kenney, G. L. (1972). *Notes on Communications in Communities of the Northern Parts of the Provinces of Manitoba, Saskatchewan, Alberta and British Columbia, Montreal*. Man in the North Project, Task Force on Communications. Arctic Institute of North America.

Klang, M. & Murray, A. (2005). *Human Rights in the Digital Age*. Abingdon: The GlassHouse Press.

Kluitenberg, E. (2011). On the Archaeology of Imaginary Media. In J. Parikka & E. Huhtamo (Eds.),

- Media Archaeology: Approaches, Applications and Implications* (pp. 48-69). Oakland: University of California Press.
- Kral, M & Idlout, L. (2006). Participatory Anthropology in Nunavut. In P. Stern & L. Stevenson (Eds.), *Critical Inuit Studies: An Anthology of Contemporary Arctic Ethnography* (pp. 54-70). Lincoln: University of Nebraska Press.
- Kvale, S. (1994). Ten Standard Objections to Qualitative Research Interviews. *Journal of Phenomenological Psychology*, 25(2), 147-173.
- Kvale, S. (1996). *InterViews: An Introduction to Qualitative Research Interviewing*. Thousand Oaks: SAGE.
- Labov, W. & Fanshel, D. (1977). *Therapeutic discourse*. New York: Academic Press.
- Laclau, E. & Mouffe, C. (1985). *Hegemony and Socialist Strategy: Towards a Radical Democratic Politics*. London: Verso.
- Larkin, B. (2008). *Signal and Noise: Media, Infrastructure and Urban Culture in Nigeria*. London: Duke University Press.
- Laslett, B. & Rapoport, R. (1975). Collaborative Inter-viewing and Interactive Research. *Journal of Marriage and the Family*, 37(4), 968-977.
- Latour, B. (1999). When Things Strike Back – A Possible Contribution of “Science Studies” To the Social Sciences. *British Journal of Sociology*, 51(1), 105-123.
- Latour, B. (2005). *Reassembling the Social: An Introduction to Actor-Network Theory*. Oxford: Oxford University Press.
- Laugrand, F. & Luna-Penna, G. (2013). IsumaTV, la Babel du Grand Nord: religions, images autochtones et médias électroniques. *Recherches amérindiennes au Québec*, 43(2-3), 31-47.
- Law, J. (2008). Actor-network theory and material semiotics. In B. S. Turner (Ed.), *The New Blackwell Companion to Social Theory, 3rd Edition* (pp. 141-158). Oxford: Blackwell.
- Leese, M. (2015). ‘We were taken by surprise’: body scanners, technology adjustment, and the eradication of failure. *Critical Studies on Security*, 3(3), 269-282.
- Lefebvre, H. (1968). *Le Droit à la Ville*. Paris: Anthropos.
- Lefebvre, H. (1991). *The Production of Space*. (Trans. D. Nicholson-Smith). Cambridge: Blackwell.
- Lessig, L. (2006). *Code : And Other Laws of Cyberspace v2*. New York: Basic Books.
- Lin, C. I., Kuo, F. Y., & Myers, M. D. (2015). Extending ICT4D Studies: The value of critical research. *MIS Quarterly*, 39(3), 697-712.

- Lister, M. & Wells, L. (2001). Seeing beyond belief: Cultural Studies as an approach to analysing the visual". In Van T. Van Leeuwen & C. Jewitt (Eds.), *Handbook of Visual Analysis* (pp. 61-92). London: SAGE.
- Long, T. (2004, August 16). It's Just the "Internet" Now. *Wired*. Web. Accessed 12 July 2017. Retrieved from: <https://www.wired.com/2004/08/its-just-the-internet-now/>
- Lutz, C. A., & Abu-Lughod, L. (Eds.). (1990). *Language and the Politics of Emotion*. New York: Cambridge University Press.
- Maccoby, E. E. & Maccoby, N. (1954). The interview: A tool of social science. In G. Lindzey (Ed.), *Handbook of Social Psychology* (pp. 449-487). Cambridge: Addison-Wesley.
- Marcu, D. (2000). *The Theory and Practice of Discourse Parsing and Summarization*. Cambridge: The MIT Press.
- Martin, K. C. (2016, April 5). Should you capitalize the word Internet? *Oxford Dictionaries Blog*. Web. Accessed 7 August 2017. Retrieved from: <https://blog.oxforddictionaries.com/2016/04/05/should-you-capitalize-internet/>
- Massey, D. (1994). *Space, Place and Gender*. Cambridge: Polity.
- Mattelart, A. (1996). *The Invention of Communication*. Trans. S. Emmanuel. Minneapolis: University of Minnesota Press.
- Mattelart, A. (2000). *Networking the World: 1794-2000*. Minneapolis: University Of Minnesota Press.
- Matthiasson, J. T. (1992). *Living on the Land: Change among the Inuit of Baffin Island*. Peterborough: Broadview Press.
- Maxwell, R. & Miller, T. (2012). *Greening the Media*. Oxford: Oxford University Press.
- McAuley, A. & Walton, F. (2011). Decolonizing cyberspace: Online support for the Nunavut MED. *The International Review of Research in Open and Distributed Learning*, 12(4), 17-34.
- McCoyd, J. L. M. & Kerson, T. S. (2006). Conducting intensive interviews using email: A serendipitous comparative opportunity. *Qualitative Social Work*, 5(3), 389-406.
- McLuhan, M. (1964). *Understanding Media: The Extensions of Man*. New York: McGraw-Hill.
- McMahon, R. (2013). *Digital Self-Determination: Aboriginal Peoples and the Network Society in Canada*. Dissertation. Simon Fraser University.
- McPherson, R. (2003). *New Owners in Their Own Land: Minerals and Inuit Land Claims*. Calgary: University of Calgary Press.

- Michaels, E. (1993). *Bad Aboriginal Art: Tradition, Media and Technological Horizons*. Minneapolis: The University of Minnesota Press.
- Mies, M. (1983). Towards a Methodology for Feminist Research. In G. Bowles & R.D. Klein (Eds.), *Theories of Women's Studies* (pp. 117-140). London: Routledge and Kegan Paul.
- Miller, D. & Slater, D. (2000). *The Internet: An Ethnographic Approach*. London : Berg.
- Mishler, E. (1986). *Research Interviewing—Context and Narrative*. Cambridge: Harvard University Press.
- Morley, D. (1986). *Family Television: Cultural Power and Domestic Leisure*. Abingdon: Comedia.
- Morley, D. (1998). So-Called Cultural Studies: Dead Ends and Reinvented Wheels. *Cultural Studies*, 12(4), 478-497.
- Morris, M. & Ogan, C. (1996). The Internet as Mass Medium. *Journal of Communication*, 46(1), 39-50.
- Mosco, V. (2004). *The Digital Sublime: Myth, power and cyberspace*. Cambridge: MIT Press.
- N-CAP. (n.d). *Nunavut E-Association*. Web. Accessed 10 September 2015. Retrieved from: <http://www.nu.e-association.ca>
- N-CAP Board. (2016). Shortage of Volunteers Threatens Public Internet Access in Nunavut (Letters). *Nunatsiaq News*. Web. Accessed 18 January 2017. Retrieved from: http://www.nunatsiaqonline.ca/stories/article /65674dwindling_volunteers_threatens_public_internet_access_in_nunavut/
- New Internet Plans. (n.d). *Qiniq*. Web. Accessed 5 November 2016. Retrieved from: <http://wwwdev.qiniq.com/new-internet-plans/>
- Northern Connectivity: Ensuring Quality Communications. (2014, January). Nordicity for *The Northern Communications Infrastructure Systems Working Group*.
- Nunavut Hunting Stories. (n.d.). *Facebook* (Group). Web. Accessed 18 December 2017. Retrieved from: <https://www.facebook.com/groups/188702541281403/>
- Nunavut Quick Facts. (n.d). Nunavut Bureau of Statistics. *Government of Nunavut*. Web. Accessed 13 July 2016. Retrieved from: <http://www.stats.gov.nu.ca/en/home.aspx>
- Nunavut Telecommunication Needs: Community Teleservice Centres. (1995). A Supplementary Report of the Nunavut Implementation Commission. *Nunavut Implementation Commission*.
- Nuttall, M. (1992). *Arctic Homeland: Kinship, Community and Development in Northwest Greenland*. Toronto: University of Toronto Press.

- Oakley, A. (1981). Interviewing Women: A Contradiction in Terms. In H. Roberts (Ed.), *Doing Feminist Research* (pp. 30-62). Boston: Routledge & Kegan Paul.
- Obligation to serve and other matters. (2010, October 26; 2010, November 1). Public Consultation. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 15 May 2016. Retrieved from: http://www.crtc.gc.ca/eng/process/2010/oct26_ag.htm
- Obligation to serve and other matters. (2010, November 1). Transcript, Volume 4. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 15 May 2016. Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2010/tt1101.html>
- O'Connor H, Madge, C., Shaw, R. & Wellens, J. (2008). Internet-based interviewing. In N. Fielding, N. Lee & G. Blank (Eds.), *The SAGE Handbook of Online Research Methods* (pp. 271-289). London: SAGE.
- Orlikowski W. J. (2000). Using technology and constituting structures: A practice lens for studying technology in organizations. *Organization Science*, 11(4), 404-428.
- Osherson, S. D. (1980). *Holding On Or Letting Go*. New York: Free Press.
- Paasonen, S. (2009). What Cyberspace: Traveling Concepts in Internet Research. In G. Goggin & M. McLelland (Eds.), *Internationalizing internet studies: beyond anglophone paradigms* (pp. 18-32). Abingdon: Routledge.
- Parks, L. & Starosielski, N. (2015). Introduction. In L. Parks & N. Starosielski (Eds.), *Signal Traffic: Critical Studies of Media Infrastructures* (pp. 1-27). Chicago: University of Illinois Press.
- Pascale, C. M. (2011). *Cartographies of Knowledge: Exploring Qualitative Epistemologies*. Thousand Oaks: SAGE.
- Pedwell, T. (2016, December 21). CRTC Declares Broadband Internet a Basic Service, Like Telephone. *CTV News*. Web. Accessed 18 December 2017. Retrieved from: <http://www.ctvnews.ca/business/crtc-declares-broadband-internet-a-basic-service-like-telephone-1.3213065>
- Peritz, I. (2014, January 17). Speaking out Against \$600 A Week Grocery Bills. *The Globe and Mail*. Web. Accessed 8 September 2015. Retrieved from <http://www.theglobeandmail.com/news/national/the-North/why-is-food-so-expensive-in-nunavut-shop-for-yourself-and-find-out/article15915054/>
- Pick, J. B. & Sarkar, A. (2015). *The Global Digital Divides: Explaining Change*. New York: Springer.
- Pieterse, J. N. (2005). Digital Capitalism and Development: The Unbearable Lightness of ICT4D. in G. Lovink & S. Zehle (Eds.), *Incommunicado Reader* (pp. 11-29). Institute of Network Cultures: Amsterdam.
- Pieterse, J. N. (2010). *Development Theory: Deconstructions/Reconstructions*. Thousand Oaks: SAGE.

- Postill, J. (2010). Introduction: Theorising Media and Practice. In B. Brauchler & J. Postill (Eds.), *Theorising Media and Practice* (pp. 1-32). Oxford: Berghahn.
- Potter, J. & Wetherell, M. (1987). *Discourse and Social Psychology*. London: SAGE.
- Procedures for the Operation of the National Contribution Fund. (2008, January). *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 8 June 2014. Retrieved from: <http://www.crtc.gc.ca/PARTVII/Eng/8638/CRTC/ncf2007a.htm>
- Project Loon. (n.d.). *X*. Web. Accessed 5 October 2017. Retrieved from: <https://x.company/loon/>
- Projects: Nunavut Broadband SpeedTest. (2015). *Nunavut Broadband Development Corporation*. Web. Accessed 18 November 2017. Retrieved from: <http://nunavut-broadband.ca/projects/nunavut-broadband-speedtest>
- Qaggiavuut!*. (n.d.). Web. Accessed 2 June 2016. Retrieved from <http://www.qaggiavuut.ca/>
- Rapeley, T. (2004). Interviews. In B. S Seale, G. Gobo, J. F. Gubrium & D. Silverman (Eds.), *Qualitative Research Practice* (pp. 15-33). London: SAGE.
- Review of basic telecommunications services. (2016, April 11-28). Public Consultation. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016. Retrieved from: <https://services.crtc.gc.ca/pub/instances-proceedings/Default-Default.aspx?S=O&PA=T&PT=NC&PST=A>
- Review of basic telecommunications services. (2016, April 11). Transcripts. Volume 1. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016. Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2016/tt0411.htm>
- Review of basic telecommunications services. (2016, April 12). Transcripts. Volume 2. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016. Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2016/tt0412.htm>
- Review of basic telecommunications services. (2016, April 13). Transcripts. Volume 3. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016. Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2016/tt0413.htm>
- Review of basic telecommunications services. (2016, April 18). Transcripts. Volume 6. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016. Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2016/tt0418.htm>
- Review of basic telecommunications services. (2016, April 19). Transcripts. Volume 7. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016. Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2016/tt0419.htm>
- Review of NorthwesTel Inc.'s Regulatory Framework, Modernization Plan, and related matters. (2013,

June 17, 19-20). Public Consultation. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016. Retrieved from: http://www.crtc.gc.ca/eng/transcripts/2013/index.htm_ga=1.218044757.295018493.1462883449#tt0617

Review of NorthwesTel Inc.'s Regulatory Framework, Modernization Plan, and related matters. (2013, June 17). Transcripts, Volume 1. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016. Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2013/tt0617.html>

Review of NorthwesTel Inc.'s Regulatory Framework, Modernization Plan, and related matters. (2013, June 19). Transcripts, Volume 2. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016. Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2013/tt0619.html>

Review of NorthwesTel Inc.'s Regulatory Framework, Modernization Plan, and related matters. (2013, June 20). Transcripts, Volume 3. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016. Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2013/tt0620.html>

Review of price cap regulatory framework for NorthwesTel Inc. and related matters. (2011, October 4-5). Public Consultation. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 17 May 2016. Retrieved from: <https://services.crtc.gc.ca/pub/instances-proceedings/Default-Default.aspx?lang=eng&YA=2011&S=C&PA=t&PT=nc&PST=a#2011-302>

Review of price cap regulatory framework for NorthwesTel Inc. and related matters. (2011, October 4). Transcript, Volume 1. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 15 May 2016. Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2011/tt1004.html>

Review of price cap regulatory framework for NorthwesTel Inc. and related matters. (2011, October 5). Transcript, Volume 2. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016. Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2011/tb1121a.htm>

Rideout, V. (2003). *Continentalizing Canadian telecommunications: The Politics of Regulatory Reform*. Montreal/Kingston: McGill-Queen's University Press.

Rodgers, K. & Scobie, W. (2015). Sealfies, seals and celebs: expressions of Inuit resilience in the Twitter era. *Interface*, 7(1), 70-97.

Roth, L. (2005). *Something new in the air: the story of First Peoples television broadcasting in Canada*. Montreal/Kingston: McGill-Queen's University Press.

Roth, L. (2014). Digital self-Development and Canadian First Peoples of the North. *Media Development*, 2, 1-8.

Sandvig, C. (2012). Connection at Ewiiapaayp Mountain: Indigenous internet infrastructure. In

- L. Nakamura & P. Chow-White (Eds.), *Race after the internet* (pp. 168-200). New York: Routledge.
- Schiller, D. (2011). *Digital Capitalism: Networking the Global Market System*. Cambridge: The MIT Press.
- Schuman, H., & Presser, S. (1996). *Questions and answers in attitude surveys: Experiments on question form, wording, and context*. Thousand Oaks: SAGE.
- Schwartz, J. (2002, December 29). The Nation: Case-Sensitive Crusader; Who owns the Internet? You and i do. *The New York Times*. Web. Accessed 5 July 2017. Retrieved from: <http://www.nytimes.com/2002/12/29/weekinreview/the-nation-case-sensitive-crusader-who-owns-the-internet-you-and-i-do.html>
- Scobie, W. & Rodgers, K. (2013). Contestations of resource extraction projects via digital media in two Nunavut communities. *Études/Inuit/Studies*, 37(2), 83-101.
- Seidman, I. (2006). *Interviewing as Qualitative Research: A Guide for Researchers in Education and the Social Sciences*. New York: Teachers College.
- Shepherd, T., Taylor, G. & Middleton, C. (2014). A Tale of Two Regulators: Telecom Policy Participation in Canada. *Journal of Information Policy*, 4, 1-22.
- Sinclair, G., Intven, H. & Tremblay, A. (2006). Telecommunications Policy Review Panel: Final Report. Web. Accessed 15 September 2014. Retrieved from the *Industry Canada* website: [https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/tprp-final-report-2006.pdf/\\$FILE/tprp-final-report-2006.pdf](https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/tprp-final-report-2006.pdf/$FILE/tprp-final-report-2006.pdf)
- Soja, E. W. (1989). *Postmodern Geographies: The Reassertion of Space in Critical Social Theory*. London: Verso.
- Soja, E. W. (2000). *Postmetropolis: Critical Studies of Cities and Regions*. Oxford: Blackwell.
- Soja, E. W. (2010). *Seeking Spatial Justice*. Minneapolis: University of Minnesota Press.
- Soukup, K. (2006). Report: Travelling Through Layers: Inuit Artists Appropriate New Technologies. *Canadian Journal of Communication*, 31(1). Web. Retrieved from: <http://www.cjconline.ca/index.php/journal/article/view/1769/1889>
- Spivak, G. C. (1988). Can the Subaltern Speak? In C. Nelson & L. Grossberg (Eds.), *Marxism and the Interpretation of Culture* (pp. 271-313). Champaign: University of Illinois Press.
- Sponagle, J. (2016, May 20). Arctic Fibre says takeover by Alaskan company won't affect plans for Nunavut broadband. *CBC News*. Web. Accessed 15 June 2016. Retrieved from: <http://www.cbc.ca/news/canada/North/arctic-fibre-optic-internet-sale-quintillion-1.3591825>
- Stevenson, L. (2006). The Ethical Injunction to Remember. In P. Stern & L. Stevenson (Eds.), *Critical*

Inuit Studies: An Anthology of Contemporary Arctic Ethnography (pp. 168-183). Lincoln: University of Nebraska Press.

Strategic Networks Group. (2012). *An Assessment of the Socioeconomic Impact of Internet Connectivity in Nunavut*. Prepared for the Nunavut Broadband Development Corporation.

Sustainable Development Goals. (n.d.). *United Nations*. Web. Accessed 18 January 2018. Retrieved from: <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Tai, Z. (2006). *The Internet in China: Cyberspace and civil society*. Abingdon: Routledge.

Taylor, L. (2015). Inside the Black Box of Internet Adoption: The Role of Migration and Networking in Internet Penetration in West Africa. *Policy & Internet*, 7(4), 423-446.

Telecommunications Act. (1993). Statutes of Canada C. 38. *Department of Justice*. Web. Accessed 4 June 2014. Retrieved from: <http://laws-lois.justice.gc.ca/eng/acts/t-3.4/>

Telecom Notice of Consultation CRTC 2015-134. (2015, April 9). *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 13 May 2016. Retrieved from: <http://www.crtc.gc.ca/eng/archive/2015/2015-134.htm>

Telecom Regulatory Policy CRTC 2011-291. (2011, May 3). *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 4 June 2014. Retrieved from: <http://www.crtc.gc.ca/eng/archive/2011/2011-291.htm>

Telecom Regulatory Policy CRTC 2013-711. (2013, December 18). *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 10 January 2014. Retrieved from: <http://www.crtc.gc.ca/eng/archive/2013/2013-711.htm>

Telecom Regulatory Policy CRTC 2016-496. (2016, December 21). *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 18 January 2017. Retrieved from: <https://www.crtc.gc.ca/eng/archive/2016/2016-496.htm>

Tester, F. J. (2006). From Iglu to Iglurquak. In P. Stern & L. Stevenson (Eds.), *Critical Inuit Studies: An Anthology of Contemporary Arctic Ethnography* (pp. 230-253). Lincoln: University of Nebraska Press.

Tester, F. J. (2011). Mad Dogs and (mostly) Englishmen: Colonial relations, commodities, and the fate of Inuit sled dogs. *Études/Inuit/Studies*, 34(2), 129-147.

Tester, F. J. & Kulchyski, P. (1994). *Tammarniit (Mistakes): Inuit Relocation in the Eastern Arctic 1939-1963*. Vancouver: UBC Press.

Tester, F. J. & Kulchyski, P. (2008). *Kiumajut (Talking Back): Game Management, Community Development and Inuit Rights in the Eastern Arctic*. Vancouver: UBC Press.

The Road We Travelled: Our Communities' Voyage to the Future on the ICT Highway. (n.d). *Nunavut*

E-Association. Web. Accessed 22 September 2015. Retrieved from: http://www.nu.e-association.ca/cim/305C1_3T580.dhtm

- Thomas, L. & Forster, A. (1993). *Connecting the North: Defining Northern Users' Needs: Report of a Needs Analysis Conducted for the Government of the Northwest Territories*. Inuit Broadcasting Corporation.
- Thomas, L., Fry, K. & Stiles, M. (1995). Uqausiit Ukiuqtaqtumit Sukajukkut Tusarutikkik: Northern Voices on the Information Highway. *Connecting the North Symposium Final Report*. Inuit Broadcasting Corporation.
- Thompson, E. (1999). The Temporal Structure of Discourse: the Syntax and Semantics of Temporal Then. *Natural Language & Linguistic Theory*, 17(1), 123-160.
- Thompson, M. (2004). Discourse, "Development" and the "Digital Divide": ICT and the World Bank. *Review of African Political Economy*, 31(99), 103-123.
- Thomsen, D. K. & Brinkmann, S. (2009). An Interviewer's Guide to Autobiographical Memory: Ways to Elicit Concrete Experiences and To Avoid Pitfalls in Interpreting Them. *Qualitative Research in Psychology*, 6, 294-312.
- Truth and Reconciliation Commission of Canada. (2015). *Canada's Residential Schools: The Inuit and Northern Experience, Volume 2*. Montreal/Kingston: McGill-Queen's University Press.
- Valaskakis, G. G. & Wilson, T. C. (1984). *The Inuit Broadcasting Corporation: current viewing tastes and preferences of the Inuit television audience in the Keewatin and Baffin regions of the Northwest Territories*. Montreal: Concordia University.
- Van Deursen, A.J. & Van Dijk, J.A. (2014). The digital divide shifts to differences in usage. *New Media and Society*, 16(3), 507-526.
- Van Dusen, J. (2015, September 30). Nunavut Housing Crisis: "Dire Straits" in Igloolik. *CBC News*. Web. Accessed November 15, 2015. Retrieved from: <http://www.cbc.ca/news/canada/north/igloolik-social-housing-dire-straits-1.3248953>
- Van Leeuwen, T. (2005). Three models of interdisciplinarity. In R. Wodak and P. Chilton (Eds.), *A New Agenda in (Critical) Discourse Analysis: Theory, Methodology and Interdisciplinarity* (pp. 3-17). Amsterdam: John Benjamins Publishing Co.
- Virilio, P. (2000). *The Information Bomb*. (Trans. C. Turner). London: Verso.
- von Hippel, E. (1998). *The Sources of Innovation*. Oxford: Oxford University Press.
- Wachowich, N. (2006). Cultural Survival and the Trade in Iglulingmiut Traditions. In P. Stern & L. Stevenson (Eds.), *Critical Inuit Studies: An Anthology of Contemporary Arctic Ethnography* (pp. 119-138). Lincoln: University of Nebraska Press.

- Wachowich, N. & Scobie, W. (2010). Uploading selves: Inuit digital storytelling on YouTube. *Études/Inuit/Studies*, 34(2), 81-105.
- Wade, R. H. (2004). Is Globalization Reducing Poverty and Inequality? *International Journal of Health Services*, 34(3), 381-414.
- Wakeford, N. (2003). The Embedding of Local Culture in Global Communication: Independent Internet Cafes in London. *New Media and Society*, 5(3), 379-399.
- Wakegijig, J., Osborne, G., Statham, S., & Issaluk, M. D. (2013). Collaborating toward improving food security in Nunavut. *International journal of circumpolar health*, 72(1), 21201.
- Warschauer, M. (2003). Dissecting the Digital Divide: A Case Study in Egypt. *The Information Society*, 19(4), 297-304.
- Weiss, G. & Wodak, R. (2003). Introduction: Theory, Interdisciplinarity and Critical Discourse Analysis. In G. Weiss and R. Wodak (Eds.), *Critical Discourse Analysis: Theory and Interdisciplinarity* (pp. 1-32). New York: Palgrave Macmillan.
- Wellman, B., Boase, J. & Chen, W. (2002). The Networked Nature of Community: Online and Offline. *IT & Society*, 1(1), 151-165.
- Wengraf, T. (2001). *Qualitative Research Interviewing: Biographic Narrative and Semi-Structured Methods*. London: SAGE.
- White, G. (2006). Traditional Aboriginal Values in a Westminster Parliament: The Legislative Assembly of Nunavut. *Journal of Legislative Studies*, 12, 8-31.
- White, G. (2008). 'Not the Almighty': Evaluating Aboriginal Influence in Northern Claims Boards. *Arctic*, 61 (Supp), 71-85.
- White, G. (2009). Governance in Nunavut: Capacity vs. Culture? *Journal of Canadian Studies*, 43(2), 57-81.
- White, J. (2005). Frozen but Always in Motion: Arctic Film, Video and Broadcast. *The Velvet Light Trap*, 55, 52-64.
- Wilken, R. (2011). *Teletechnologies, Place and Community*. Abingdon: Taylor & Francis.
- Wolfson, E. (2001). *Inuit Mythology*. Berkley Heights: Enslow Publishers Inc.
- Ya'u, YZ. (2004). The New Imperialism & Africa in the Global Electronic Village. *Review of African Political Economy*, 11-29.
- Zielinski, S. (2008). *Deep Time of the Media: Towards an Archaeology of Hearing and Seeing by Technical Means*. (Trans. G. Custance). Cambridge: MIT Press.

List of Figures

Figure 1. Map of Canada. Nunavut Location Map Canada. *Emaps World*. Web. Accessed 15 July 2016. Retrieved from:
<http://www.emapsworld.com/nunavut-location-map-canada.html>

Figure 2. Map of Nunavut, with communities. Community Information. Department of Executive and Intergovernmental Affairs. *Government of Nunavut*. Web. Accessed 15 July 2016. Retrieved from:
<http://www.gov.nu.ca/eia/information/community-information>.

Appendices

Archival Reports

- Akeshoo, A. & MacNeill, N. (1974, January 22). *Public Hearing CRTC 96*.
- Arctic Communications Infrastructure Assessment Report. (2011, April 30). *A Matter of Survival: Arctic Communications Infrastructure in the 21st century*. Northern Communications & Information Systems Working Group. Retrieved from: <http://www.aciareport.ca/>
- Building of Qiniq Network. (n.d). *Nunavut Development Broadband Corporation*. Web. Accessed 4 March 2014. Retrieved from: <http://nunavut-broadband.ca/projects/building-qiniq-network>
- Infrastructure II. (n.d). *Nunavut Development Broadband Corporation*. Web. Accessed 4 March 2013. Retrieved from: <http://www.nunavut-broadband.ca/projects/infrastructure-ii>
- Kenney, G. L. (1972). *Notes on Communications in Communities of the Northern Parts of the Provinces of Manitoba, Saskatchewan, Alberta and British Columbia, Montreal*. Man in the North Project, Task Force on Communications. Arctic Institute of North America.
- Northern Connectivity: Ensuring Quality Communications. (2014, January). Nordicity for *The Northern Communications Infrastructure Systems Working Group*.
- Nunavut Telecommunication Needs: Community Teleservice Centres. (1995). A Supplementary Report of the Nunavut Implementation Commission. *Nunavut Implementation Commission*.
- Obligation to serve and other matters. (2010, October 26; 2010, November 1). Public Consultation. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 15 May 2016. Retrieved from: http://www.crtc.gc.ca/eng/process/2010/oct26_ag.htm
- Obligation to serve and other matters. (2010, November 1). Transcript, Volume 4. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 15 May 2016. Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2010/tt1101.html>
- Procedures for the Operation of the National Contribution Fund. (2008, January). *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 8 June 2014. Retrieved from: <http://www.crtc.gc.ca/PARTVII/Eng/8638/CRTC/ncf2007a.htm>
- Review of basic telecommunications services. (2016, April 11-28). Public Consultation. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016. Retrieved from: <https://services.crtc.gc.ca/pub/instances-proceedings/Default-Default.aspx?S=O&PA=T&PT=NC&PST=A>
- Review of basic telecommunications services. (2016, April 11). Transcripts. Volume 1. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016. Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2016/tt0411.htm>
- Review of basic telecommunications services. (2016, April 12). Transcripts. Volume 2. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016.

Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2016/tt0412.htm>

Review of basic telecommunications services. (2016, April 13). Transcripts. Volume 3. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016.

Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2016/tt0413.htm>

Review of basic telecommunications services. (2016, April 18). Transcripts. Volume 6. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016.

Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2016/tt0418.htm>

Review of basic telecommunications services. (2016, April 19). Transcripts. Volume 7. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016.

Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2016/tt0419.htm>

Review of NorthwesTel Inc.'s Regulatory Framework, Modernization Plan, and related matters. (2013, June 17, 19-20). Public Consultation. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016. Retrieved from: http://www.crtc.gc.ca/eng/transcripts/2013/index.htm_ga=1.218044757.295018493.1462883449#tt0617

Review of NorthwesTel Inc.'s Regulatory Framework, Modernization Plan, and related matters. (2013, June 17). Transcripts, Volume 1. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016. Retrieved from:

<http://www.crtc.gc.ca/eng/transcripts/2013/tt0617.html>

Review of NorthwesTel Inc.'s Regulatory Framework, Modernization Plan, and related matters. (2013, June 19). Transcripts, Volume 2. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016. Retrieved from:

<http://www.crtc.gc.ca/eng/transcripts/2013/tt0619.html>

Review of NorthwesTel Inc.'s Regulatory Framework, Modernization Plan, and related matters. (2013, June 20). Transcripts, Volume 3. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016. Retrieved from:

<http://www.crtc.gc.ca/eng/transcripts/2013/tt0620.html>

Review of price cap regulatory framework for NorthwesTel Inc. and related matters. (2011, October 4-5). Public Consultation. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 17 May 2016. Retrieved from: https://services.crtc.gc.ca/pub/instances_proceedings/Default-Default.aspx?lang=eng&YA=2011&S=C&PA=t&PT=nc&PST=a#2011-302

Review of price cap regulatory framework for NorthwesTel Inc. and related matters. (2011, October 4). Transcript, Volume 1. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 15 May 2016. Retrieved from: <http://www.crtc.gc.ca/eng/transcripts/2011/tt1004.html>

Review of price cap regulatory framework for NorthwesTel Inc. and related matters. (2011, October 5). Transcript, Volume 2. *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 14 May 2016. Retrieved from:

<http://www.crtc.gc.ca/eng/transcripts/2011/tb1121a.htm>

Sinclair, G., Intven, H. & Tremblay, A. (2006). Telecommunications Policy Review Panel: Final Report. Web. Accessed 15 September 2014. Retrieved from the *Industry Canada* website: [https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/tp-rp-final-report-2006.pdf/\\$FILE/tp-rp-final-report-2006.pdf](https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/tp-rp-final-report-2006.pdf/$FILE/tp-rp-final-report-2006.pdf)

Strategic Networks Group. (2012). *An Assessment of the Socioeconomic Impact of Internet Connectivity in Nunavut*. Prepared for the Nunavut Broadband Development Corporation.

Telecommunications Act. (1993). Statutes of Canada C. 38. *Department of Justice*. Web. Accessed 4 June 2014. Retrieved from: <http://laws-lois.justice.gc.ca/eng/acts/t-3.4/>

Telecom Notice of Consultation CRTC 2015-134. (2015, April 9). *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 13 May 2016. Retrieved from: <http://www.crtc.gc.ca/eng/archive/2015/2015-134.htm>

Telecom Regulatory Policy CRTC 2011-291. (2011, May 3). *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 4 June 2014. Retrieved from: <http://www.crtc.gc.ca/eng/archive/2011/2011-291.htm>

Telecom Regulatory Policy CRTC 2013-711. (2013, December 18). *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 10 January 2014. Retrieved from: <http://www.crtc.gc.ca/eng/archive/2013/2013-711.htm>

Telecom Regulatory Policy CRTC 2016-496. (2016, December 21). *Canadian Radio-Television and Telecommunications Commission*. Web. Accessed 18 January 2017. Retrieved from: <https://www.crtc.gc.ca/eng/archive/2016/2016-496.htm>

Thomas, L. & Forster, A. (1993). *Connecting the North: Defining Northern Users' Needs: Report of a Needs Analysis Conducted for the Government of the Northwest Territories*. Inuit Broadcasting Corporation.

Thomas, L., Fry, K. & Stiles, M. (1995). Uqausiit Ukiuqtaqtumit Sukajakkut Tusarutikkik: Northern Voices on the Information Highway. *Connecting the North Symposium Final Report*. Inuit Broadcasting Corporation.

List of Interviewees Engaged with Nunavummiut Internet Politics

- Faith. (2014). Community Access Program Employee, Government of Nunavut and Internet User. Telephone. February 21, 2014. Interview.
- Francis and Luke. (2013). Department of Aboriginal Affairs Employees. Telephone. November 7, 2013 Interview.
- George. (2014). Former Employee of SSi Micro and Internet User. RBC Building, Iqaluit. October 3, 2014. Interview.
- Jeremy. (2013). Former Employee of the Government of Nunavut and Nunavut Broadband Development Corporation. Telephone. October 17, 2013. Interview.
- Jonah. (2013). NorthwesTel Employee. Telephone. October 28, 2013. Interview.
- Liane. (2013). Former Employee of the NBDC. Skype Voice. September 12, 2013. Interview.
- Marcus. (2013). Canadian Radio-Television and Telecommunications Commission Employee. Telephone. October 15, 2013. Interview.
- Melanie. (2013). Telesat Employee. Telephone. October 2, 2013. Interview.
- Michael. (2013). Canadian Northern Economic Development Agency Employee. Telephone. October 25, 2013. Interview.
- Naima. (2013). NBDC Employee and Internet User. Telephone. October 9, 2013. Interview.
- Naima. (2014). NBDC Employee and Internet User. NBDC Office, Iqaluit. October 2, 2014. Interview.
- Nick. (2013). Government of Nunavut Employee and Internet User. Telephone. November 13, 2013. Interview.
- Redfern, M. (2014). Arctic Fibre Representative and Internet User. Tim Horton's Coffee Shop, Iqaluit. October 1, 2014.
- Reggie. (2013). Arctic Fibre Employee. Telephone. October 17, 2013. Interview.
- Simon. (2013). SSi Micro Employee. Telephone. October 14, 2013. Interview.
- Will. (2013). Industry Canada Employee. Telephone. October 19, 2013. Interview.

Sample Web Content Consulted For this Project

- Arnaquq-Baril, A. (2011, September 22). Seven Sins: Sloth. *YouTube*. Web. Accessed 2 July 2017. Retrieved from: <https://www.youtube.com/watch?v=quw9TEm5WWo>
- Feeding My Family. (n.d). *Facebook* (Group). Web. Accessed 18 December 2017. Retrieved from: <https://www.facebook.com/groups/239422122837039/about>
- Inukdan. (2009). The Best of Inukdan part 1. *YouTube*. Web. Accessed 20 August 2017. Retrieved from: <http://www.youtube.com/user/inukdan#p/u/23/DsvI4b3w648>
- Isuma.TV*. (n.d.) Web. Accessed 3 January 2018. Retrieved from: <http://www.isuma.tv/>
- Nash1922. (2007). Jumped. *YouTube*. Web. Accessed 12 January 2017. Retrieved from: <http://www.youtube.com/user/Nash1922>.
- NunatsiaqOnline. (n.d). *Nunatsiaq News*. Web. Accessed 12 September 2017. Retrieved from: <http://www.nunatsiaqonline.ca/>
- Nunavummiut Makitagunarningit. (n.d.) *Wordpress*. Web. Accessed 20 August 2017. Retrieved from: <https://makitanunavut.wordpress.com/about/>
- Nunavut Hunting Stories. (n.d.). *Facebook* (Group). Web. Accessed 18 December 2017. Retrieved from: <https://www.facebook.com/groups/188702541281403/>
- Qaggiavuut!*. (n.d). Web. Accessed 2 June 2016. Retrieved from <http://www.qaggiavuut.ca/>
- Qilavvaq, R. (2012, February 24). Feel the Inukness. *YouTube*. Web. Accessed 20 January 2018. Retrieved from: <https://www.youtube.com/watch?v=iawDXQGQsr0>
- The Inuit Qaujimagatuqangit Adventure*. (n.d). Web. Accessed 20 August 2017. Retrieved from: <http://www.inuitq.ca>

Sample Informed Consent Form

Working Project Title: *Broadband Internet in Nunavut: Policy, Access, Usage*

About the Researcher

Name: Kareena Coelho

Address: In Canada: 2 Evergreen Avenue, Brampton, Ontario, L6P 0P7

In the UK: 48 Cloudesdale Road, London, SW17 8 EU, United Kingdom

Telephone: 416.410.2322 (Can); +44 07534570404 (UK)

Email: kareena.coelho@gmail.com; cop01kc@gold.ac.uk

Project description

I am a PhD student at Goldsmiths, University of London, and I am conducting interviews for my Doctoral Thesis. I am researching broadband policy and internet usage as it pertains to Nunavut.

During this study, you will be asked to answer some questions about your use of technology, particularly internet. This interview was designed to be face to face and 30 minutes in length. If you consent, some of your statements may be included in published material, but your identity will be kept anonymous and confidential, unless you desire otherwise. If there are any questions you would rather not answer or that you do not feel comfortable answering, please say so and we will stop the interview or move on to the next question, whichever you prefer.

Unless you object, the interview will be recorded using an audio device. All the information collected will be kept confidential and anonymous. I will keep the data in a secure place. Audio recordings will be kept in a safe, while digital files will be password protected. I alone will have access to this information. Upon completion of this project, all data will be destroyed.

Participant's Agreement:

I am aware that my participation in this interview is voluntary. I understand the intent and purpose of this research. If, for any reason, at any time, I wish to stop the interview, I may do so without having to give an explanation.

I have the right to request a translator, and to conduct this interview in Inuktitut.

The data gathered in this study are confidential with respect to my personal identity unless I specify otherwise. I understand that what I say during this interview may be referenced in published academic materials under a pseudonym but I have the right at any time during this interview or after to request that these statements not be made public.

I have the right to object at any time during the interview to the use of an audio device in the recording of this interview.

If I have any questions about this study, I am free to contact the student researcher (Kareena Coelho; +011 44 7534570404; cop01kc@gold.ac.uk) or kareena.coelho@gmail.com) or the faculty adviser ([Prof. David Morley, d.morley@gold.ac.uk]).

I have been offered a copy of this consent form that I may keep for my own reference.

I have been fully informed of the objectives of the project being conducted. I understand these objectives and consent to being interviewed for the project. I understand that steps will be undertaken to ensure that this

interview will remain confidential unless I consent to being identified. I also understand that, if I wish to withdraw from the study, I may do so without any repercussions.

Participant's signature

Participant Name

Witness Signature

Date

Interview Sample Questions

Note: Interviews would usually commence with a few prepared questions, and then the interviewer would follow-up with questions based on the respondent's answers. Below, are lists of sample questions that were used to begin interviews conducted over the course of this project.

Sample Questions for Interviews with Government/Advocacy Groups

1. Can you tell me about your role/position within your organization/department?
2. How has your organization/department been involved in Nunavut's internet politics/federal government's internet policies?
3. What do you think about the current levels of internet service and internet access in Nunavut's internet ?
4. What do you see as the main issues affecting internet? If you think internet should be improved, do you have any plans/suggestions/ideas for how this could be done?
5. Do you think government's approach to internet investment and funding should alter? If so, do you have any ideas/suggestions of how it should/could be altered?

Sample Questions for CAP Site Administrators

1. Could you tell me a bit about yourself – your background and what your role encompasses at the CAP site?
2. From your perspective, what have been some of the most significant changes experienced by the site during your tenure?
3. What kinds of programs does your site offer?
4. What are some of the main challenges facing the CAP site in your community?
5. Is your CAP site widely used? Are the computers often occupied?

Sample Questions for Interviews with Nunavummiut Internet Users

1. What communications technologies do you tend to use on a fairly regular basis (at least once a week; ex. of technologies include internet/mobile phones/landline telephones/postal service)?

For each technology mentioned, ask participant to state what they would do with technology most commonly (e.g. internet, on Facebook/emailing, etc), and how often they use a particular technology.

2. Is internet useful for your everyday life and work?

3. Do you have internet access at home? If so, for how long have you had it in your home? And if not, where do you go for internet access, if you use internet?
4. Are you satisfied with your access to internet?
5. (*If not satisfied*) What are some things about internet that you would like to see improved?

Interview Index

- Adam. (2013). Internet User. Telephone. October 8, 2013. Interview.
- Alicia. (2013). Internet User. Skype Voice. September 2, 2013. Interview.
- Brenda. (2013). Inuit Tapiriit Kanatami Employee. ITK Office, Ottawa. October 21, 2013. Interview.
- Carmine. (2014). Employee for Iqaluit Service Provider and Internet User. His office, Iqaluit. October 6, 2014. Interview.
- Coral. (2014). Manager for an Electronics Store and Internet User. Her office, Iqaluit. October 7, 2014. Interview.
- Denise. (2013). Internet User. An Inuit Visitor's Centre, Ottawa. October, 23, 2013. Interview.
- Earl. (2013). Internet User. An Inuit Visitor's Centre, Ottawa. October, 23, 2013. Interview.
- Elaine. (2013). Internet User. Telephone. September 5, 2013. Interview.
- Emilie. (2014). Internet User and Media Producer. Her office, Iqaluit. October 2, 2014. Interview.
- Ezra. (2014). CAP Site Coordinator and Internet User. Iqaluit Public Library, Iqaluit. October 4, 2014. Interview.
- Faith. (2014). Community Access Program Employee, Government of Nunavut and Internet User. Telephone. February 21, 2014. Interview.
- Francis and Luke. (2013). Department of Aboriginal Affairs Employees. Telephone. November 7, 2013 Interview.
- Freida. (2013). Internet User. An Inuit Visitor's Centre, Ottawa. October, 23, 2013. Interview.
- Galina. (2014). CAP Site Coordinator and Internet User. Telephone. November 4, 2014. Interview.
- George. (2014). Former Employee of SSi Micro and Internet User. RBC Building, Iqaluit. October 3, 2014. Interview.
- Harris. (2013). Internet User. An Inuit Visitor's Centre, Ottawa. October 23, 2013. Interview.
- Henry. (2014). Internet User and Museum Curator. His office, Iqaluit. October 7, 2014. Interview.
- Hugo. (2013). Internet User. An Inuit Visitor's Centre, Ottawa. October, 23, 2013. Interview.
- Jacqueline. (2014). Internet User and Media Producer. Her home, Iqaluit. October 9, 2014. Interview.

James. (2013). Internet User. Telephone. October 16, 2013. Interview.

Jane. (2013). Inuit Art Curator. Starbucks, Queen Street West, Toronto. October 4, 2013. Interview.

Jennifer. (2014). Employee with an Inuit Women's Organization. Her organization's office, Ottawa. February, 10, 2014. Interview.

Jenny. (2013). Internet User. Skype Voice. October 7, 2013. Interview.

Jeremy. (2013). Former Employee of the Government of Nunavut and Nunavut Broadband Development Corporation. Telephone. October 17, 2013. Interview.

Jerry. (2015). CAP Site Coordinator and Internet User. Telephone. July 12, 2015. Interview.

Jonah. (2013). NorthwesTel Employee. Telephone. October 28, 2013. Interview.

Ken. (2014). Internet User and Music Producer. His home, Iqaluit. October 8, 2014. Interview.

Kevin. (2014). Internet User, Actor, and Government of Nunavut Employee. Coffee Shop, Iqaluit. October 8, 2014. Interview.

Kira. (2014). Employee at an Inuit Visitor's Centre who had recently relocated from Nunavut. An Inuit Visitor's Centre, Ottawa. October 21, 2013. Interview.

Laura. (2013). Internet User. Skype Voice. October 3, 2013. Interview.

Leroy. (2013). Internet User. An Inuit Visitor's Centre, Ottawa. October, 23, 2013. Interview.

Liane. (2013). Former Employee of the NBDC. Skype Voice. September 12, 2013. Interview.

Louise. (2014). Internet User and Artist. Her office, Iqaluit. October 2, 2014. Interview.

Mabel. (2013). Internet User. An Inuit Visitor's Centre, Ottawa. October, 23, 2013. Interview.

Marcus. (2013). Canadian Radio-Television and Telecommunications Commission Employee. Telephone. October 15, 2013. Interview.

Marie. (2013). Internet User. Telephone. September 10, 2013. Interview.

Mathias. (2014). E-Learning Coordinator and Internet User. His office, Nunavut Research Institute, Iqaluit. October 8, 2014. Interview.

Melanie. (2013). Telesat Employee. Telephone. October 2, 2013. Interview.

Michael. (2013). Canadian Northern Economic Development Agency Employee. Telephone. October 25, 2013. Interview.

Mike. (2013). Internet User. Telephone. September 5, 2013. Interview.

Mirko. (2014). CAP Site Coordinator and Internet User. Telephone. October 6, 2014. Interview.

Naima. (2013). NBDC Employee and Internet User. Telephone. October 9, 2013. Interview.

Naima. (2014). NBDC Employee and Internet User. NBDC Office, Iqaluit. October 2, 2014. Interview.

Nancy. (2014). Internet User and College Instructor. Her home, Iqaluit. October 8, 2014. Interview.

Neville. (2013). Internet User. An Inuit Visitor's Centre, Ottawa. October, 23, 2013. Interview.

Nick. (2013). Government of Nunavut Employee and Internet User. Telephone. November 13, 2013. Interview.

Odette. (2013). Internet User. An Inuit Visitor's Centre, Ottawa. October, 23, 2013. Interview.

Olga. (2015). CAP Site Coordinator and Internet User. Telephone. July 9, 2015. Interview.

Otto. (2015). CAP Site Coordinator and Internet User. Telephone. July 16, 2015. Interview.

Pauline. (2014). Internet User and Film-Maker. Her home, Iqaluit. October 9, 2014. Interview.

Penny. (2013). Internet User. An Inuit Visitor's Centre, Ottawa. October, 23, 2013. Interview.

Raina. (2014). Internet User and Media Producer. Her office, Iqaluit. September 30, 2014. Interview.

Redfern, M. (2014). Arctic Fibre Representative and Internet User. Tim Horton's Coffee Shop, Iqaluit. October 1, 2014.

Reggie. (2013). Arctic Fibre Employee. Telephone. October 17, 2013. Interview.

Remi. (2013). Internet User. An Inuit Visitor's Centre, Ottawa. October, 23, 2013. Interview.

Sabrina. (2013). Internet User. An Inuit Visitor's Centre, Ottawa. October 23, 2013. Interview.

Selma. (2013). Internet User. An Inuit Visitor's Centre, Ottawa. October, 23, 2013. Interview.

Simon. (2013). SSi Micro Employee. Telephone. October 14, 2013. Interview.

Vanessa. (2013). Internet User. An Inuit Visitor's Centre, Ottawa. October, 23, 2013. Interview.

Will. (2013). Industry Canada Employee. Telephone. October 19, 2013. Interview.

Wren. (2013). Internet User. An Inuit Visitor's Centre, Ottawa. October, 23, 2013. Interview.