

New Uses of “Old” Media: Exploring Technologies-in-Use in Nunavut

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ABSTRACT

Background *This article draws upon findings from interviews and participant-observation in Nunavut, Canada, to analyze internet's place within the communication landscape.*

Analysis *The author situates the newer medium of broadband internet within the context of television, radio, the postal service, and satellite dishes in Nunavut. She argues that focusing on these persisting platforms provides insight into how internet and its issues are experienced by Nunavummiut users.*

Conclusions and implications *Contrary to prevalent notions of innovation that privilege newness of form, the usage of persisting media can be dynamic and innovative. The evidence presented builds upon existing research on media usage by Indigenous peoples; it also suggests the potential for Indigenous-media research to reconceptualize innovation, oldness, and newness within the broader field of media and communications.*

Keywords *Indigenous media; Nunavut; Internet; Media archaeology; Polymedia*

RÉSUMÉ

Contexte *Cet article se fonde sur des entretiens et une observation participative effectués au Nunavut (Canada) dans le but d'analyser la place d'internet parmi divers médias disponibles.*

Analyse *L'auteure situe le média relativement récent d'internet à haut débit au Nunavut par rapport à la télévision, la radio, le service des postes et l'antenne parabolique. Elle soutient qu'un examen de ces derniers médias plus traditionnels peut aider à comprendre comment les utilisateurs du Nunavut gèrent l'internet et les défis qui s'y rapportent.*

Conclusions et implications *Souvent on a tendance à privilégier les toute dernières technologies, mais les médias traditionnels peuvent encore aujourd'hui s'avérer dynamiques et innovateurs. À cet effet, les données présentées dans cet article viennent compléter des recherches existantes sur l'utilisation des médias par les autochtones. Elles suggèrent qu'il est possible pour la recherche sur les médias autochtones de contribuer à une reconceptualisation de ce qui est ancien, nouveau et innovateur dans le domaine des médias et de la communication.*

Mots clés *Médias autochtones; Nunavut; Internet; Archéologie médiatique; Polymédias*

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Introduction

This article probes the relationship between internet and other media in Nunavut, Canada (a territory in the eastern Canadian Arctic), situating internet within the context of television, radio, satellite dishes, and the postal service. The term “internet” is used over the more prevalent “the Internet,” because internet is theorized here as being multiple, varying, and local (Franklin, 2004), whereas “the Internet” suggests the universal and the singular. In particular, the article examines ways in which certain media and communications platforms in Nunavut are used to compensate for and supplement each other: the radio provides Inuit communities in Nunavut with opportunities for language preservation, and it is more stable and robust than other media; television is currently more accessible and prevalent in Nunavummiut homes than internet; discontinued satellite dishes offer possibilities for bandwidth caps that are less onerous for internet users; and the postal service ensures that files too large for Nunavummiut internet to handle make it to their final destination. Building on Indigenous media scholarship and drawing on data collected from interviews with Nunavummiut informants, the article provides examples of usage of persisting (“older”) media by Nunavummiut (people who live in Nunavut), arguing that this usage is innovative, and that research into persisting media can provide insight into how a new media (broadband internet, in this case) is experienced by its users.

Background on Nunavut and Nunavummiut internet

Located in Northern Canada and constituted as a political entity in 1999, Nunavut is a vast territory, making up 20 percent of Canada’s land mass, with a population of just over 30,000. The population is overwhelmingly Inuit (Nunavut Bureau of Statistics, n.d.), an Indigenous group that has lived in these areas for millennia.

Internet in Nunavut, which is provided via satellite, is often described as slow, unreliable, and expensive (Participant F, personal communication, September 12, 2013; Participant G, personal communication, October 9, 2013). The most commonly purchased internet package in Nunavut costs approximately \$80 per month, for which users receive 20 gigabytes of data (Qiniq, “New Internet Plans,” n.d.); for a similar price, a user in Toronto would receive unlimited data (Bell Canada, 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 are 1.672 Mbps for downloading and 397 Kbps for uploading (NBDC, 2015). The NBDC states 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).

In addition to slow speeds, 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 as follows:

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, p. 5)

From its inception, internet in Nunavut has been heavily reliant on the federal government; funding from the Canadian government was necessary to provide the territory with broadband internet (which became available in 2005), and the federal government continues to subsidize SSI Micro, the primary internet service provider in Nunavut and the builder of the territory's Qiniq network (Northern Communications & Information Systems Working Group, 2011). Territorial internet stakeholders such as the NBDC, the government of Nunavut, as well as corporations such as Telesat (whose satellites are used in the provision of the territory's internet, as well as for television and long-distance telephone) and SSI Micro have argued that many of Nunavummiut internet's problematics can be traced to the underfunding of internet by the federal government (Canadian Radio-television and Telecommunications Commission, 2016a, 2016b, 2016c) and have therefore been involved in ongoing discussions and negotiations concerning internet with that government. These stakeholders have argued, both in meetings with federal government departments and at hearings held by the Canadian Radio-television and Telecommunications Commission (CRTC), Canada's telecommunications regulator, that internet access and service in the territory has been hampered by a lack of sustained, sufficient funding by the federal government (CRTC, 2016a 2016b, 2016c; Roth, 2014).

Their efforts may have had some effect; in December 2016, the CRTC ruled that high-speed internet is a basic service that should be available to all Canadians, a ruling which potentially opens to the door to substantially greater funding for broadband across Canada, particularly in rural and remote areas (Dobby, 2016). Possibilities therefore exist for internet in Nunavut to change dramatically in the near future, in which case the data provided in this article, which focuses on Nunavummiut internet's current issues, may act as a kind of time capsule, capturing some of the ways that "early" Nunavummiut broadband internet functioned, as well as some of its users' practices and discourses. It should also be noted that during the time period in which this research was conducted (2013 to 2016), the mobile phone landscape in Nunavut was uneven and changing; however, in 2017, 4G became available in all communities (Qiniq, "Home Page," n.d.), and this availability will likely also impact the nature of internet interactions, access, and usage across the territory.

As the above paragraphs suggest, internet in Nunavut involves complex processes, and the examples in this article serve to highlight only *some* of the ways that internet works in Nunavut, without providing a full picture. Focusing on "older" technologies and internet's relationship with these media tends to underline the shortcomings of Nunavummiut internet. A reader could conclude that internet in Nunavut is utterly non-functional, which is not what I am arguing, although as noted above, internet in

the territory is often experienced as problematic by its users. However, even with its issues, internet in Nunavut is not devoid of functionality, as explored by scholars such as Neil Christensen (2003), who examined the webpages created by Inuit users; Nancy Wachowich and Willow Scobie (2010), who investigated YouTube videos posted by Inuit youth; and Scobie and Kathleen Rodgers (2013), who probed how social media has been used by Inuit to contest resource extraction projects.

Literature review

The research presented in this article sits at the intersection of Indigenous media scholarship and the current interests of technology studies. This literature review begins with an examination of relevant research pertaining to media within Indigenous communities, including research on the politics of Indigenous media, the appropriation of infrastructures, and the cultural significance of community media for Indigenous peoples, and later shifts focus to the concerns of technology studies and the relevance of theorizing persisting technologies.

Scholarship on Indigenous media

There has been much scholarship on the development, production, usage, and politics of media within Indigenous communities, and this literature acts as a background and theoretical foundation for the research presented in this article. As the above discussion of Nunavummiut internet policy debates suggests, stories of Indigenous media are often connected to and implicated in political struggles. This has been the case for First Nations and Inuit communities in Canada. Lorna Roth (2005), in both her own research and her collaborations with Gail Valaskakis (1989), explored how these communities have had to strategically petition the federal government for access to and greater control of media and the tools of media production. Indigenous media (and Inuit media, in the case of this article) tends to be largely funded by federal government grants and resources, and Indigenous media infrastructures are often reliant on federal government investment. Roth's (2005) work has consistently demonstrated that gaining access to and control of media for Inuit and First Nations communities in Canada has involved lengthy negotiations with governments, which have tended to provide Indigenous communities with the tools and resources for media production rather slowly and somewhat begrudgingly.

In their initiatives to gain control over media resources, and because of hesitancy on the part of federal and provincial governments as well as telecommunications corporations to invest in Indigenous media infrastructures, some First Nations and Inuit communities in Canada have sought to foster their own media infrastructures. Rob McMahon, with Heather Hudson and Lyle Fabian (2014), has chronicled these efforts, particularly through the researchers' involvement in the First Mile Connectivity Consortium, as well as through McMahon's (2013) research on the Northern Indigenous Community Satellite Network. In a similar vein, Christian Sandvig (2012) has 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 cellphone towers. Sandvig is particularly interested in the idea of appropriation: the ways that

the communities he studies have taken initiative in building their own networks through the use of materials intended for another purpose, and the ways their practices complicate common discourses of appropriation. 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, p. 191)

This perspective on appropriation has been helpful in considering the data collected for this article and is returned to later in the analysis section of this article.

If the scholars cited above examine the challenges Indigenous peoples have faced in gaining access to media, and some of the political and infrastructural strategies employed by communities, the question might arise of what media signifies for Indigenous peoples: why do communities fight for media, want to have greater control over media, desire their own media networks and platforms? Faye Ginsburg (2002), a media anthropologist who has studied Inuit film, argues that Indigenous filmmakers use film and media for acts of memory in response to colonial histories and persisting government policies that marginalize Indigenous cultures within their respective nation-states. Ginsburg wrote: "Indigenous people are using screen media ... to recuperate their own collective stories and histories—some of them traumatic—that have been erased in the national narratives of the dominant culture and are in danger of being forgotten within local worlds as well" (p. 40).

Valerie Alia (2009) has echoed some of these ideas, examining in her book *The New Media Nation: Indigenous Peoples and Global Communication* the ways Indigenous peoples have used media for the cultural revitalization of communities, as well as for Pan-Indigenous initiatives. Susan Forde, Kerrie Foxwell, and Michael Meadows (2009) have extensively studied community media, such as community radio and community television, among Indigenous Australians. They have argued that for Indigenous peoples, community media serves several purposes: it is used for language and cultural preservation; for providing community members with media production skills; as a means of relaying local news and information; and as a tool for empowerment. Forde, Foxwell, and Meadows were influenced in their approach to understand Indigenous community media as empowering by the work of Clemencia Rodriguez (2011), who has studied community radio in Colombia and developed the concept of *citizens' media*, arguing that community media are tools that foster citizenship and allow communities to represent themselves to themselves. She states that citizens' media

are communication spaces where citizens can learn to manipulate their own languages, codes, signs, and symbols empowering them to name the world in their own terms. Citizens' media trigger processes that allow cit-

izens to recodify their contexts and themselves. These processes ultimately give citizens the opportunity to restructure their identities into empowered subjectivities strongly connected to local cultures ... Citizens' media are the media citizens use to activate communication processes that shape their local communities. (2011, p. 24)

The research of Rodriguez (2011), Forde, Foxwell, and Meadows (2009) as well as Ginsburg (2002) and Alia (2009) illustrates the significance and meanings that media can hold for Indigenous communities. Their work also provides some background to why internet issues in Nunavut might be of particular frustration to Inuit users and communities (who imagine the powerful ways internet could be used for cultural purposes, if internet were faster, more reliable, and more ubiquitous (Participant A, personal communication, September 5, 2013; Participant K, personal communication, October 23, 2013; Participant L, personal communication, October 1, 2014). In addition, this research highlights the enduring importance of other media in the territory, such as radio and television, which have been and continue to be used for cultural, linguistic, and local purposes. However, as Elizabeth Burrows (2016) has noted in her research on Aboriginal and Indigenous media in Australia and Canada, as a result of recent government cuts to funding, some traditional media (such as newspapers) have now become difficult for Indigenous communities to engage with. So internet, even with its technical and access issues, can increasingly act as a space for Indigenous communities to participate in and engage with politics and issues relevant to their communities, in the face of growing losses of traditional media outlets.

Media and technology studies and technologies-in-use

After that overview of research on Indigenous media, this section of the literature review shifts perspective to consider ideas from media and technology studies and, in particular, ideas of innovation, oldness, and newness as they relate to technology.

David Edgerton, in his book *The Shock of the Old* (2008), critiques what he sees as an overemphasis on newness in technology studies. He writes: "We are told that change is taking place at an ever-accelerating pace, and that the new is increasingly powerful. The world, the gurus insist, is entering a new historical epoch as a result of technology" (p. ix). Edgerton argues that technology studies that focus on innovation and new platforms inevitably end up being narrow. They are often the stories of White, male Europeans or North Americans, who are well-educated and fairly wealthy, because these are usually (but of course not always) the types of people who have historically had the resources (and, colonial theorists would argue, have taken the resources [Rodney, 1972]) to innovate, in the ways that innovation has been narrowly defined—as the creation of new ideas and new forms (Edgerton, 2008).

Edgerton proposes that technology studies needs to re-orient, or at least embrace the importance and relevance of studying not only what is new but what persists: what he calls *technology-in-use* (2008, p. xi). Edgerton argues that if researchers start to embrace the viewpoint of technology-in-use, the possibilities for research become wider and more inclusive. If the invention and uses of new forms is not the only thing that is perceived as significant, if the usage of persisting technologies becomes a focus, then the stories of women, of people outside the West—suddenly, these are stories we are

compelled to tell (Edgerton, 2008). Edgerton writes: “One particularly important feature of use-based history of technology is that it can be genuinely global. It includes all places that use technology ... It gives us a history of technology engaged with all the world’s population, which is mostly poor, non-white and half female” (2008, p. xiii).

Other media scholars have attempted to grapple with questions concerning oldness and newness of technologies, particularly with the advent of internet. In her theorizing of blogs, danah boyd (2006) argues that “mediums are connected to and built upon other mediums” (p. 11), and Sonia Livingstone and Moira Bovill (1999), in their research on the ways British children interact with television, found that among children and young people, the distinction was often not between “old” and “new” media, but between computer-based versus non-computer-based technologies. Media archaeologists such as Eric Kluitenberg (2011) have interrogated ideas around newness, noting 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 through new technologies. Vincent Mosco (2004), 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.

The ability to innovate through usage, to appropriate technologies, and to find purposes for media and technologies both old and new (areas which the media and technology scholars cited above argue should be of interest for media researchers) has long been the focus of Indigenous media scholarship, as the earlier section of this literature review demonstrates. In bringing these strands of media studies literature together—research on Indigenous media as well as media archaeology and technology studies—this article hopes to suggest the fruitfulness a greater discourse between these differing strands can provide to media and communications scholarship more broadly. Indigenous media scholarship, as well as the scholarship on media usage and production in countries in the Global South, is sometimes treated as area studies, their applicability limited to their specific geographic regions (an idea that is not without merit, because geographic and cultural context continue to be important) (Larkin, 2008). With that being said, a juxtaposition of some of the concerns of media and technology studies with the research on Indigenous media suggests the ways Indigenous media research can offer evidence that addresses the current concerns of media and technology studies. It can further push media and technology studies toward considering usage as innovative, rethinking the dichotomy between old and newer media platforms, and understanding how different media, of varying generations, are used in relation to each other and for differing purposes by users. In short, Indigenous media scholarship can provide evidence and means for theorizing not only the ways in which media works in Indigenous communities, but media and technology more broadly, adding empirical depth to media theories that might otherwise lean heavily or exclusively on scholarship from Western European and American circumstances. This rela-

tionship has often gone in the direction of media theory influencing how Indigenous media scholars analyze and develop their work (Roth, 2005; Sandvig, 2012); the argument made from analyzing the literature here is that more fertilization in the opposite direction, with Indigenous media scholarship influencing the development of broader media theories and paradigms, would be beneficial to the field of media research.

Methodology

The evidence for this article emerged from doctoral research that theorizes internet in Nunavut. Research methods included two weeks of participant-observation in Iqaluit (Nunavut's capital); 59 semi-structured interviews (34 conducted face to face in Toronto, Ottawa, and Iqaluit, and 25 conducted by telephone); and the analysis of archival materials and of websites. Some informants were selected for their involvement with media production, others were approached for their experiences as media users, and other informants were interviewed because of their involvement in Nunavut media and internet politics. Twenty-eight of the interviewees identified as Inuit, while the remaining 31 identified as non-Inuit. The interview discussion topics, therefore, differed depending on the interviewee's experiences, expertise, and interest, but focused on themes such as experiences of internet usage, the politics of internet and internet infrastructures in Nunavut, and tactics for dealing with internet issues. Interviews were manually coded, using open, axial, and selective coding (Charmaz, 2006). When quoting from interviews in this article, informants were not identified by name, in accordance with their wishes.

Evidence from Nunavut

The pages that follow present evidence concerned with media usage in Nunavut, with a particular focus on media and technologies that are persisting—or, in some cases, “discontinued”—and their specific utility for Nunavummiut internet users, media producers, and journalists. This section examines evidence related to the radio, television, satellite dishes, and the postal service.

Evidence from Nunavut: Radio

Radio started being introduced into communities in the Canadian North in the 1920s (Northwestel, n.d.). According to people interviewed for this study, radio is still a fairly popular medium in Nunavut, particularly because it allows for a great deal of content in Inuktitut, the language spoken by many Inuit (Participant A, personal communication, September 5, 2013; Participant F, personal communication, September 5, 2013; Participant C, personal communication, October 7, 2013; Participant I, personal communication September 30, 2014; Participant B, personal communication, October 9, 2014). A journalist interviewed mentioned that she prefers working on the radio because unlike television in the territory, which currently allows for only 30 minutes of Inuktitut programming a day, the national public radio station broadcast in Nunavut, CBC Radio North, provides almost eight hours of Inuktitut programming. She said, regarding radio: “There’s that flexibility in radio that you don’t have in TV ... In the three-and-half-hour morning show, half is in English, half is in Inuktitut, and from 12 [p.m.] to 6 [p.m.], that’s all in Inuktitut, so there’s a lot of flexibility” (Participant B, personal communication, October 9, 2014).

Outside the capital of Iqaluit, community radio is also quite popular in many of the hamlets and smaller communities. Because it is run by volunteers, the programming varies in consistency from community to community. Participant I, who has worked in communications in Nunavut for the past 10 years, spoke to the ways that community radio in Nunavut is known for its prioritizing of local news:

There's community radio in all of the communities. It's effective also ... I think within the communities, they really hold on to that community radio, and they publish everything the community needs to know, like whose birthday it is and all that kind of stuff. (Personal communication, September 30, 2014)

Participant E, who lives in the community of Pangnirtung but who is originally from Southern Canada, says that the radio is useful for her as she tries to learn Inuktitut. She listens to it over lunch and described how Nunavummiut community radio has its own cultural logic:

Radio is still an integral part of the community, usually it's just turned to CBC ... In the communities, at certain times of the day, it turns off and there are local broadcasters. I listen to it over lunch ... you get a random, eclectic mix of music, and the broadcasters stop mid-song to announce. (Personal communication, October 3, 2013)

Some of those interviewed described a situation where, growing up, their parents or grandparents would have both the television and the radio on at the same time in their homes. Participant B said:

When I was in Pond Inlet [a community in Nunavut] at my grandparents' house, the TV would be on silent, because mainly it's in English, but the radio would be on all the time. That was one way, especially for elders, like my grandparents, why wouldn't you, that was the only language medium that was available to you. (Personal communication, October 9, 2014)

Participant B continued on to say that she makes a point of keeping the radio on when her children are at home; she wants to make sure that they hear as much Inuktitut as possible.

But the radio is not simply a source of Inuktitut content. The satellites that provide many of Nunavut's telecommunications can sometimes experience glitches, and on October 6, 2011, there was a major satellite malfunction that lasted for 16 hours. On that day, there was no long-distance telephone in Nunavut, most television stations were unavailable, there was no internet, no ability to use ATMS or credit cards, no banks operating, and planes could not take off or land. But, importantly, when the satellite and as a consequence internet, television, and long-distance telephone all failed, radio still worked in the territory. The Royal Canadian Mounted Police, for example, used CBC Radio North to communicate and coordinate with each other across the territory, while the premier of Nunavut at the time, Eva Aariak, used the radio to ask the territory's communities to activate their emergency plans (Rogers, 2011; "Satellite Problems Ground Nunavut Flights," 2011).

The radio is a medium that has persisted in Nunavut. It is a technology-in-use because, in keeping with the findings of Forde, Foxwell, and Meadows (2009) on community media, it provides Inuit communities with cultural and linguistic control and local information. And, significantly, radio is also stable and, when compared with other media platforms that rely on satellite, such as internet, is a reliable medium.

Evidence from Nunavut: TV Nunavut and IsumaTV

As previously mentioned, there is little Inuktitut programming on television stations that are broadcast in Nunavut. As a result, a group of Nunavummiut have been campaigning to get a television station that is specifically dedicated to Nunavut. They call this project TV Nunavut, and their objective is to offer Nunavummiut a television option that is geared toward local issues and cultural education and which features Inuktitut language content (TV Nunavut, n.d). Of some interest to this author was what those working on TV Nunavut, in the early stages of the planning process, hoped to feature on the proposed television network: the Web content of IsumaTV.

To provide some background on IsumaTV: In the 2000s, when broadband internet was just becoming available in Nunavut, Isuma, a film production company most famous for producing *Atanarjuat: The Fast Runner* (Kunuk, 2001), and which specializes in creating and disseminating Inuit cultural material (Evans, 2008; Santo, 2004; Soukup, 2006), wanted to ensure that there was Inuit cultural content online. To that end, in 2008 Isuma created the website IsumaTV, which features hundreds of hours of Inuktitut cultural content. IsumaTV is participatory: it allows users to upload their own videos to the site, and beyond featuring material involving Inuit issues and culture, it also features material that pertains to the experiences of other Indigenous groups in Canada and around the world (Dupré, 2010).

The issue remains that many Inuit in Nunavut still have only limited access to IsumaTV's content because of the kind of internet connection available in the territory, a connection that is quite slow and expensive. Given the costs stated earlier, many people in Nunavut cannot afford to have internet in their homes, and of those who do, most have to be choosy about how many videos they watch, because of the bandwidth caps. And since the connection is quite slow, watching videos is often difficult and frustrating: it can sometimes take 20 minutes to watch a five-minute video (Participant M, personal communication, September 2, 2013). As a result, though there is this plethora of Inuit cultural content in the form of videos available on IsumaTV, those videos are arguably more accessible to someone in Toronto than to someone in Iqaluit or Pond Inlet. Isuma staff have been open about their awareness of the irony surrounding IsumaTV's relative inaccessibility to its target audience (Bell, 2008). To ameliorate these issues, Isuma developed and now offers communities the IsumaTV Mediaplayer. Isuma described this media player as "a local caching server designed to bypass slow Internet bandwidth speeds, data transfer limits and high costs of sharing media in remote regions. It allows people to upload and share media through the IsumaTV website at high speed and full quality, regardless of their internet connection" (IsumaTV, n.d.).

Isuma suggests on the IsumaTV website that the media player could also be used by local community television stations, which could then broadcast IsumaTV video playlists to homes within their local communities (IsumaTV, n.d.).

One of TV Nunavut's initial goals, as a territory-wide television network, was to provide Nunavummiut in every community access to IsumaTV's internet content (though communities would have the ability to curate playlists to their specific interests). Participant H, a member of the TV Nunavut board of directors, spoke with me about the project in detail during an interview. She said:

I'm sure you've heard of IsumaTV, which is an amazing initiative, it's brilliant and cutting-edge and thinking ahead of time, before the internet is in every home ... I'm so glad it's there, and I hope that's what we'll end up using in the future. But in the meantime, many people can't afford computers, internet, it's not ubiquitous, and so for the time being, we need a conventional broadcaster [to broadcast the content of IsumaTV], at least as an interim measure, and so that's the idea behind TV Nunavut. (Personal communication, October 9, 2014)

What is interesting about TV Nunavut and IsumaTV initiatives are the ways they disrupt ideas about how certain media function in relation to each other. Internet is sometimes positioned as the "democratic" medium (Bentivegna, 2002). TV Nunavut points to the ways in which a medium can mean an entirely different thing in different circumstances. Perhaps in some more "central" location (New York City, Toronto), internet is the medium of democracy, allowing for two-way discussions and accessibility. But in Nunavut, internet, because of its expense, can have more of an air of privilege to it. The examples of TV Nunavut and the IsumaTV player suggest that in Nunavut, television, as opposed to internet, is increasingly seen as the better tool to provide Inuit communities access to web videos.

TV Nunavut and the IsumaTV mediaplayers act as evidence of Edgerton's contention that usage can be innovative; in light of an internet that is relatively inaccessible, Inuit media producers working on TV Nunavut and the IsumaTV mediaplayers have sought to use television and internet in ways that best serve their communities: to use television to broadcast videos that internet acts as an archive for. As well, in keeping with the scholarship of Ginsburg (2002) and Alia (2009), the logic behind TV Nunavut, IsumaTV, and the IsumaTV mediaplayers demonstrates the ways in which Inuit communities continue to employ and prioritize media usage to facilitate cultural and linguistic preservation and revitalization, and as a means to share cultural knowledge.

Evidence from Nunavut: Xplornet satellites

This article has mentioned the monthly bandwidth caps that affect internet users in Nunavut, requiring users to take a somewhat conservationist approach to the use of internet and, in particular, to the watching of online videos. But while visiting Nunavut, I found that Nunavummiut did not have to deal with monthly usage caps if they had the Telesat Ka2, a satellite dish sold by a company called Xplornet. These dishes initially retailed for \$800 when first made available in Nunavut in 2010, but later cost about \$300 for a one-time access fee to the network, plus the monthly internet package of the users' choice, ranging in price from \$80 per month to \$179 (Participant D, personal communication, October 8, 2014).

Those with the Xplornet package have hourly caps instead of monthly caps. They operate according to what is called "a fair access policy," so depending on how much

bandwidth a person uses in an hour and how many other people are on the network at the same time, their internet might get slowed down at some point during the 60 minutes, but they would then have their speeds reset the next hour. These users do not have to deal with having their access to high-speed internet cut off for more than a short period of time, nor do they face high monthly internet usage bills, which those who operate without the Xplornet option might have to deal with, should they exceed their monthly bandwidth usage cap and need to purchase further gigabytes. Because these satellite dishes let users substitute the monthly bandwidth caps for hourly ones, when they were available, they were extremely popular (Participant I, personal communication, September 30, 2014).

However, the equipment necessary to have internet provided by Xplornet is no longer available for purchase; the company that originally made the dishes saw them as an older technology and moved on to making more “current” equipment, more in line with the demands of the Southern Canadian market. Participant D, who works at an electronics store in Iqaluit, said, in regards to the dishes used by Xplornet:

Unfortunately they’ve become unavailable because they are an older technology. The company that sells them, Xplornet, in most of the rest of Canada, has gotten away from using those and are using a completely different technology, so there’s no equipment for them anymore ... With the dish, it was more costly up front, but it’s going to be cost-effective over life ... Generally, they worked really well up here ... All the time, right now, if I had them, I could get 50 signed up in one day. (Personal communication, October 8, 2014)

Participant H, the filmmaker who works on TV Nunavut, has one of these Xplornet dishes and feels very fortunate to have one. She said:

We are extremely lucky, we have satellite internet they don’t offer ... anymore, Xplornet. We don’t have to deal with the cap, at least not on a monthly basis, it’s an hourly thing so we hit a cap at a certain point in the hour, and at the top of the hour, it resets, so we deal with it constantly, but it’s way better than what everyone else has ... But Xplornet is not a solution up here, because they are not offered anymore. (Personal communication, October 9, 2014)

The example of Xplornet showcases the ways in which the demographics of Nunavut and the focus on newness can work against Nunavummiut. Even though, proportionally, quite a few Nunavummiut might welcome the opportunity to buy an Xplornet satellite dish, “many” for Nunavut (which has a population of less than 40,000) is, unfortunately, not that many people when compared with what “many people” might mean in Southern Canada. It might not constitute sufficient demand for a national company, like Xplornet, to take notice. The Xplornet example does add evidence to this article’s argument, however, that in some cases, older—and, in this example, discontinued—technologies can continue to be relevant and perhaps in some contexts more desirable and useful to users than newer technological forms, countering the technological mythologies discussed by Mosco (2004) and Kluitenberg (2011) that position new media as panaceas.

Evidence from Nunavut: The postal service

The last example provided here about the ways in which persisting and “old” technologies continue to have value and utility in Nunavut has to do with the postal service. Communities are spread out from each other in Nunavut, and there is a paucity of transportation infrastructure (no roads connect Nunavummiut communities to each other and communities are mainly accessible by air). The costs of transporting goods into Nunavut are therefore quite high (Peritz, 2014), so stores might not have the items on hand that people might want and the items available can be quite expensive. In these circumstances, the delivery of care packages, items, and letters continues to be an important part of the communication landscape.

With the introduction of internet and email, people in Nunavut hoped internet connections would mean the speedier and more cost-effective delivery of documents. To that end, communities in Nunavut were encouraged, as a territorial initiative, to invest in fairly expensive digital equipment. The goal was to speed up the process of issuing driver’s licences and identifications—you could go somewhere local, get your picture taken, and then a digital file would be sent to the main processing centres, in the end saving all involved time and money (Northern Communications & Information Systems Working Group, 2011).

Unfortunately, things did not quite end up working out as planned. Participant J from Industry Canada (a federal government department now known as Innovation, Science and Economic Development Canada that provided much of the funding for broadband infrastructure in rural and remote areas of Canada) described the circumstances during a phone interview: “They brought pretty fancy equipment for processing drivers’ licences, and then found that the network wasn’t strong enough to transport the large data files generated by the equipment and they ended up having to fly the USB keys between communities. Less than ideal” (Participant J, personal communication, October 19, 2013). What Participant J does not point out is that this is not necessarily just a story about the internet connection being inadequate for the transfer of the files. It is also the story of the postal service remaining robust enough to accomplish the task of transporting the USB keys—perhaps not at the hoped for speeds, perhaps not with the hoped for savings, but the documents were still able to be processed because of the postal service’s persistence.

Sending large files became more of a possibility for Nunavummiut after 2010, when there was a major internet infrastructure upgrade (NBDC, n.d.). However, for those Nunavummiut who work regularly with large digital files, in fields such as advertising, public relations, art and film, sending those files to clients or editors can sometimes be a challenge and something to organize one’s schedule around. On the day I interviewed Participant I, who works in marketing, she told me she had resorted to physical means to send her work because the digital routes were not working:

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 she’s having huge problems downloading it ... 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 ... (Personal communication, September 30, 2014)

These examples highlight the ways in which using email and internet can sometimes be challenging in Nunavut, not necessarily the hoped-for time-saver, and that physical means of delivering messages and communicating still have a purpose, still have a role to play in the transmission of messages for Nunavummiut (even if those messages are digital and on USB keys).

Analysis

The evidence presented in this article argues for the importance of examining what persists, and for focusing on the ways users employ enduring media in light of the introduction of new media, not only to gain a deepened understanding of persisting media, but also to gather insight into new media. The character of Nunavummiut internet, how internet is understood and perceived by its users, is suggested through their usages of other media to compensate for internet's shortcomings. Internet in Nunavut is less stable than the radio, less capable of handling large messages than the postal service, less accessible than the television, its bandwidth working best on satellite dishes that are increasingly hard to come by. Faced with issues when dealing with Nunavummiut internet, Nunavummiut have chosen to draw on other communication platforms—to innovatively fill gaps, because these other media achieve ends in ways internet might not be able to provide. Slow, expensive, unreliable internet is negotiated by Nunavummiut using practices such as sometimes vacating the space of internet entirely and moving to other platforms, or using Nunavummiut internet in conjunction with other media.

Particularly when considering the enduring importance of radio and television (and television's new-found role as a broadcaster of Inuit web videos), cultural objectives seem to take precedence: Inuit in Nunavut will use the tools at their disposal that best suit their particular cultural purposes, and they will find ways to make those media tools work the best that they can. As Forde, Foxwell, and Meadows (2009) suggest in their research, substantiated through the evidence presented here, the newness of the medium in Indigenous communities takes a back seat to the medium's utility in fostering local ties, linguistic and cultural education, and cultural preservation.

The earlier discussion of Sandvig's (2012) work referred to his ideas on "appropriation toward parity," an idea that has relevance for thinking about the persisting media practices explored in this article. As Sandvig notes, appropriation is often associated with the countercultural, but the kinds of infrastructure appropriation he observed among Indigenous communities in Southern California, suggested to Sandvig less the countercultural and more an appropriation "toward parity," an attempt to have infrastructures and media access more on par with the norm in California. In a similar way, the tactical ways that Nunavummiut use persisting media, while certainly innovative, are innovations more geared toward amelioration and compensation, about negotiating with an internet that to some informants feels "behind" (Participant F, personal communication, September 5, 2013; Participant G, personal communication, October 9, 2013; Participant L, personal communication, October 1, 2014).

If Mosco (2004) and Kluitenberg (2011) discuss the imaginaries that media can hold, the mythologies that new media can embody for users who dream of a more perfect future, interviews with Inuit informants suggest an imagining of internet that, instead of being transcendent, is more akin to what is available in Toronto. Nunavummiut use persisting infrastructures and technologies not for some countercultural purpose, but simply to try to meet their personal and cultural objectives. The goal and hope for many Nunavummiut in regards to broadband is still that of an improved internet; in interviews conducted for this study, Inuk 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. The tactics and practices discussed in this article, therefore, should not be understood as filling in or “being adequate” for the communication objectives of Inuit communities in Nunavut; these strategies are what some are doing for now, while still desiring that internet access in the territory be improved.

Conclusion

This article has examined the usage of persisting media technologies in Nunavut, in light of obstacles encountered by Nunavummiut users when engaging with internet in the territory. In contrast to Nunavummiut internet, radio is seen as more robust and a continued source of Inuktitut language content; television is seen as more accessible, a better means of disseminating web videos to Inuit across the territory; the postal service becomes a tool for transmitting larger digital files that internet cannot handle; and discontinued satellite dishes provide less onerous bandwidth caps relative to other infrastructures in the territory. Drawing on this evidence, this article has argued for the continued importance for scholars to engage with technologies-in-use, particularly in relation to newer media, and for the ways that the usage of “older” media can be innovative. Relationships between media, and the purposes and perceived uses of persisting media have been shown in this article to be altered in Nunavut as a consequence of internet’s issues in the territory.

The examples of innovative usage of persisting media, especially community media in Nunavut presented in this article, contribute to the field of Indigenous media scholarship, which explores the creative and tactical ways that Indigenous peoples have employed the media tools at their disposal. The data in this article also suggests the possibilities that research on Indigenous media can have for media studies as a field. The evidence presented has applicability not only to other Indigenous communities outside Nunavut, but also to the current concerns of media scholars in areas such as media archaeology and technology studies, who can turn to and draw upon this evidence when grappling with and developing arguments conceptualizing innovation, as well as newness and oldness, in relation to media and technology.

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