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Cover Page Footnote

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Engaging Diverse Audiences: The Role of Community Radio in Rural Climate Change Knowledge Translation

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Abstract

Community radio is an important form of knowledge dissemination, especially in rural areas where it can create opportunities for a geographically spread-out audience to engage in local debates. Through this article, we reflect on the community-building function of radio and consider how it can be mobilized to support climate change knowledge transfer in rural communities. Our reflections draw on the use of community radio during the Gros Morne Climate Change Symposium, an event that brought together researchers, practitioners, and community members to discuss coastal climate change adaptation in Newfoundland and Labrador, Canada. We consider the history of radio in Canada, its role in rural communities, and review experiences with radio-focused knowledge dissemination in other locations to frame our own discussion of the topic. Through reflection, each of the co-authors highlights their understanding of the role of community radio at the symposium and argue for the continuing relevance of radio in an era when digital communications are more common. We conclude by arguing that community radio can strengthen place-based identities by creating a distinct forum for engagement and is therefore an important tool for climate change knowledge transfer.

Introduction

In this paper, we argue for the utility of community radio for climate change knowledge mobilization. Drawing on community radio's role in facilitating dialogue, local ownership of media, and ability to encourage a vibrant public sphere, we suggest that radio is still a relevant knowledge mobilization tool in an era of podcasts, blogs, and other digital communication mediums. Our approach is based on a definition of knowledge mobilization in relation to climate change as the process of sharing knowledge about climate change experiences and strategies with a diversity of stakeholders (Dryzek, Norgaard, & Schlosberg, 2011; Moser, 2010; Sussman, Gifford, & Abrahamse, 2016). Climate change knowledge mobilization remains a challenge amidst uncertainties on the best approach to frame messages, engage decisionmakers, and encourage community buy-in (McNaught, Warrick, & Cooper, 2014; Moser, 2010; Sussman et al., 2016). Considering the ever-growing knowledge mobilization toolkit, we seek to understand the specific value of community radio to the communication of climate change data and adaptation of best-practices, especially when used alongside other formats (i.e., community workshops, presentations, and roundtables).

We draw on our experiences of organizing and implementing community radio programming at the Gros Morne Climate Change Symposium (GMCCS) held in May 2018 at Rocky Harbour, Newfoundland and Labrador, Canada. The symposium, which was a community-university collaborative program, created a space where the localized impacts of climate change (increasing rainfall, landslides, washed-out roads, etc.) could be discussed in reference to emerging research on climate change science, adaptation strategies, and community planning resources in Newfoundland and Labrador. Community radio was an important part of the process, ensuring that the symposium could be heard across rural Gros Morne and Western Newfoundland and Labrador, and was incorporated into the program through an on-site setup that allowed close engagement with the audience.

In the pages that follow, we first provide a review of community radio and its impact on local identity, community participation, and as a venue for public discourse. Then we outline the background to the GMCCS and the role of radio at the event, which we draw on as our example of how community radio can be mobilized within climate change knowledge mobilization. As the GMCCS

organizers and community radio co-operators, we draw on self-reflection as a method for thinking through the relationship between theory (on climate change knowledge mobilization) and practice, and the impact of radio as a medium for engagement. The self-reflective approach allows each author to show how our experiences with radio at the GMCCS fit into our knowledge and practice of community knowledge mobilization, allowing us to tie those experiences to theory to provide a comprehensive argument on the value of radio. The final section emphasizes the role of community radio to place-based knowledge mobilization on climate change initiatives and argues that radio continues to be a valuable medium and process for community engagement.

Community Radio: Identities, Engagement, and Rural Publics

The World Association of Community Radio Broadcasters [*Association Mondiale Des Radiodiffuseurs Communautaire*] (AMARC, 2019) describes community radio as “a station that responds to the needs of the community which it serves and that contributes to its development in a progressive manner promoting social change” (Gaynor & O’Brien, 2010, p. 9). Community radios have a localized broadcasting signal, usually encompassing a specific geographic region—a rural community, town, or sometimes a small country—and are housed in community centers, churches, NGOs, schools, and other public or semi-public venues (AMARC, 2019). While the texture and function of community radio vary across contexts, they do share a similar ethos (Tucker, 2013). For instance, community radios are often viewed as a distinct media sphere (Gaynor & O’Brien, 2011) that provide an alternative to conventional broadcasting (Lewis, 1984; Pavarala & Malik, 2007), and through this establish a community-focused and local public venue for discussion (Forde, Foxwell, & Meadows, 2002; 2003). Frequently, community radio stations are non-profit, non-state ventures that aim for a more inclusive and participatory dialogue on community issues (Bello & Wilkinson, 2017; Faisal & Alhassan, 2018; Siemering, 2000).

The importance of community radio is in part linked to its ability to create a public sphere. A venue, as defined by Habermas (1962), is a space for dialogue, and may be created through face-to-face meetings, mediated by communication infrastructures like radio, or enacted through other

forms of exchange. Forde et al.’s (2002; 2003) work on the formation of a public sphere in Australia emphasizes the utility for community radios through their cultural roles. For Forde et al. (2002), diversity and localness are of value in the creation of the Australian publics. Since community radio serves a local audience, the programming it offers has to, by necessity, reflect the ideas and debates of relevance to its listeners, the community. Likewise, community radio stations help localize media. As Guo (2017) has noted, an increasing fragmented mediascape has necessitated researchers to argue for media localism, which can be provided by community radio. Since community radio aims for a more inclusive and participatory dialogue (Bello & Wilkinson, 2017; Faisal & Alhassan, 2018) on issues that matter to specific identities of the community (Siemering, 2000), it facilitates creation of media built on locale. This facet, in turn, helps give “meaning to the community” (Dale & Naylor, 2005; p. 222) by linking local radio to local identities and social structures. For instance, in a study of young people and community radio, Wilkinson (2015) argued that radio enables the construction of social identities by providing youth with a distinct space of exchange, one that lies beyond formal educational structures. These identities are particularly useful as young people become socially and culturally embedded in place. By *place*, we mean a distinct, geographically bounded location intertwined with equally distinct cultural practices, social relationships, and shared identities (Cresswell, 2008), and which may include a rural community, a town, your local neighborhood, your favorite coffee shop, or a wide range of other specific locations.

Since community radio has a limited geographical reach, it supports the creation and maintenance of local (i.e., place-based) identities. For instance, as Keough’s (2010) notes in a study of a station in Knoxville, Tennessee radio “created a sense of place, which was negotiated through the unique sound associated with the station’s space, the specific technologies used, and the participatory characteristics at multiple scales” (p. 77). Hence, community radio has the potential to create a localized public sphere which ensures people of different backgrounds can interact, engage, and discuss place-specific topics through a medium (radio) that is free to access (Al-hassan, Andani, & Abdul-Malik, 2011; Gaynor & O’Brien, 2011; Tucker, 2013). Through these features, community radio facilitates engagement activities in rural and

remote areas. For instance, Guo (2017) found that community radio offers the public engagement through personal conversations, phone-ins, emails, sometimes combined with social media. This multi-strategy of involving the public could create special spaces for diverse stakeholder engagement on specific issue areas. By providing a distinct space for reflection and debate, where both formal and informal community groups interact, community radio mobilizes for engagement on issue of the local (Gaynor & O'Brien, 2010). As Harvey (2011) has demonstrated, when researchers engage with community radio, they can facilitate the timely flow of information, which can be critical for community mobilization and participation, and support for engagement processes. The medium serves as a platform to bring in a diversity of voices and is sensitive to the specific practices of a place (Singh, 2010), and can support processes of identifying and solving community problems. These mechanisms also serve to amplify communication for social change toward desired community goals (Fox, 2019).

Furthermore, engagement through radio enhances the creation of community identities. In creating the local public sphere, community radio creates and gives identity to communities as well. As Fairchild (2006) noted, community radio facilitates community building through the cultural production of “social processes of meaning embodied in the experiences and practices of participants at these radio stations” (p. 61). Community radio does not only enhance engagement experiences by building on local features, but it as well contributes to the enactment of communities through the stories they carry (Guo, 2017). Hence, as participants engage through the medium, they enact stories and experiences that reflect but also provide identity to the community, which in turn encourage participation in local issues.

Community Radio in Canada and Newfoundland and Labrador

Community radio in Canada dates to the Telegraph Act of 1852 and the reconstituted Radio Telegraph Act of 1905, which was established after the first Trans-Atlantic wireless telegraph signal from Cornwall, United Kingdom, to Newfoundland and Labrador, Canada, in 1901. The first radio station in Canada went on-air in 1919 (Dale & Naylor, 2005; Rooke, 2012) and was followed by a range of radio broadcasts, including

commercial radio (first licensed in 1922), special-interest stations, and region-specific stations. A 1936 Canadian Radio Broadcasting Act started the operations of Canadian Broadcasting Corporation (CBC), which in turn created a three-tier radio broadcast system in the country: the state (CBC), commercial, and community broadcast sectors (Rooke, 2012).

The establishment of the Canadian Radio-Television and Telecommunications Commission [CRTC] (n.d.) solidified the presence of Canadian radio. The CRTC provides regulatory oversight for commercial and community radio and defines community radio as “owned, operated, managed and controlled by a not-for-profit organization that provides for membership, management, operation and programming primarily by members of the community served” (Broadcasting Regulatory Policy CRTC. (2010). Among other functions, the CRTC regulates the percentage of Canadian content that must be broadcast: Twelve percent of special interest music each week must be Canadian content (CRTC, n.d.), and aims to ensure cultural diversity on-air.

The industrial association of community radio in Canada, the National Campus and Community Radio Network [NCRA] (2019) describes the community radio sector as volunteer-driven, covering about 75% of the Canadian population in communities dotted across the country. NCRA places community stations in three categories: 1) community radio stations that are volunteer-run, with few staff, a budget of less than \$5,000, and are often present in rural or remote communities (a category that includes many stations in Newfoundland and Labrador, including the Voice of Bonne Bay in Gros Morne); 2) medium-sized stations with staff and budgets in the \$100,000s; and 3) community stations that often service urban areas with hundreds of volunteers, several staff, and more robust budgets.

Community radio in Canada have extensive coverage, including serving very remote rural areas, which may be marginalized by different structural limitations. The dispersed nature favors the use of radio as they have low infrastructure requirements. Also, the bandwidth that describes the network requirements for a particular information and communication technology for radio is low. Hence, the limited requirements necessary to set up radio make radio suited and applicable even in areas where other mediums like social media may be limited by weak signals

(Rooke & Odame, 2013). Radio can be a tool for community building and resilience. As Riva (2006) highlights, community radio serves as a platform for volunteerism that helps build local values. Programs that cover local content support the development of closer community links and allow listeners to become immersed in place (Rooke & Odame, 2013). Community radio also serves a cultural function, especially for stations that are used for the preservation of identities and language (Riva, 2006). Likewise, they are avenues for echoing voices of people in their natural form. As Armstrong (2010) notes, a voice for Canada's mosaic is avoided through community radio as programmers are expected to freely use and express their local voices, without taking up the voices of the people in power. Through the freeness of voices, including using place-specific jargons, colloquial expressions and diversity of languages, community radio has played a central role in the formation of identities in communities, while serving as the bonding element for community cohesion (Armstrong, 2010).

This is also true in Newfoundland and Labrador where, as McKee (2012) notes, due to limited cell phone reception and Internet connectivity in rural areas, community radio is still an important medium for staying connected. That community radio helps support the social fabric of Newfoundland and Labrador is also a point made by Klassen (2007) who, while examining the operations of a small station broadcasting from a church basement in St. John's, notes that radio is a form of engagement with a diversity of local listeners. Especially in Newfoundland and Labrador, which has rich oral history traditions (Halpert & Widdowson, 2015), sharing stories and music is vital to building and maintaining local identities. In this sense, community radio builds on existing community traditions around storytelling, discussion, and collective sharing, and is an important platform both for information dissemination and for public engagement.

Community Radio for Climate Knowledge Translation

Climate action has received global attention, as many of us readily agree that climate change affects every sphere of human life (Díaz et al., 2019; Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services [IPBES], 2018; Intergovernmental Panel on Climate Change [IPCC], 2007). In Canada, climate change is often

cited as resulting in hydrometeorological events such as increasing melting of the Arctic ices (Lehnherr, et al., 2018) and the frequent occurrence of wildfires (Wang, Thompson, Marshall, Tymstra, Carr, & Flannigan, 2015), along with a change to precipitation levels, rising sea levels, increasing experience of storm events and intensity, coastal erosion and flooding as temperatures warm up. However, where the consensus on the knowledge of climate impacts and climate action normally ends is on the question of whether and how known information can be translated into tangible practices and at what level. Climate action proponents often use various strategies to engage communities and other partners in dialogue and in the development of adaptation strategies (Westerhoff, Sheppard, Iype, Cote, & Salter, 2018; Sheppard, Iype, Cote, & Salter, 2015). Ensuring that a diversity of community members is involved in climate change dialogue both strengthens the potential for the update of new initiatives and creates opportunities for a fuller understanding of the range of climate realities.

Moser (2010) suggests that communities, NGOs, governments, and researchers should be actively using media outlets to reach their audience. Westerhoff et al. (2018) go a step further to argue that with respect to climate change action and information, the term "social mobilization" should be used instead of "knowledge mobilization," thereby signaling that simply conveying information will not be enough; social change and transformation is needed. Community radio is well poised to contribute to this form of social mobilization, especially alongside digital and more traditional in-person approaches to engagement. In many parts of the world rural radio is used in relation to socio-ecological issues, including communicating information about food production, food security, and agricultural development, and also influencing social change on these issues.

For example, Farm Radio International (2018) is broadcast in rural communities in Africa, and as Hampson, Leclair, Gebu, Nakabugo, and Huggins (2017) note its programs on forest restoration have had considerable influence in the adoption of new forestry practices. Similarly, Perez-Teran, Tiani, Touko-Tchoko, and Tchatchou (2015) observe that radio programs on farming and local activities helped close climate change information gaps in the Congo Basin in Africa. These programs range from the use of local languages to translate

knowledge to formats relatable to the local people, including using radio drama, short radio programs, talk shows, and call-in programs. In Ghana, McKay (2009) draws our attention to the use of community radio programs that include role-playing, storytelling, receptions, and broadcasting community gatherings to entice local participation and dialogue around natural resources management. Likewise, as McNaught, et al. (2014) show in relation to Pacific Islands communities, radio programming that is responsive to local cultural and social contexts raised awareness of climate change issues and is especially effective in remote areas with limited other communication options.

Also, Bisht and Ahluwalia (2014) showed how an innovative community radio approach designed for flood-prone areas in India offers lessons on using the medium for climate change communication. Through training of existing local reporters in four community stations, thus leveraging local resources, experiences, and knowledge, the radio stations translated complex climate change information into context-specific experiences. The programs designed by Shubh Kal Project were able to bridge the gaps between communities, scientists, and policy makers. Hence, Bisht and Ahluwalia (2014) conclude that providing community radio stations with the needed support would allow them to effectively bridge gaps in climate change communication, while offering a medium for exchange of voices between communities, policy makers and scientists. Mannar (2014) confirms Bisht and Ahluwalia's (2014) conclusion by noting that Radio Bundelkhand in India, with programs designed around issues identified by community members, was successful in creating a shift from climate-threatening farmer practices in rural Indian communities, setting the stage for the organic farming revolution catalyzed by community radio-promoted messages (see Mannar, 2014). Finally, as Martin and Wilmore (2010) found in Nepal, where a UNESCO-partnered educational radio program called Radio Lumbini has a series about the protected birth-side of the Buddha, linking local values that show how a UNESCO heritage designation can result in an inclusive broadcasting platform that engages local and external actors and promotes community resilience.

The case studies above exemplify the potential of community radio to support climate change knowledge mobilization, and to serve as a medium for influencing personal and community level

decisions. Particularly in rural areas, community radio offers a low-cost and convenient medium for connecting local residents, enables one- and two-way communication and social embeddedness (Farm Radio International, 2018; Hampson et al., 2017). The values in community radio are especially relevant when the need is considered for local based information that reflects the internal dynamics in communities without compromising the sense of ownership.

Gros Morne in Context: Climate Change, Community Radio, and Public Engagement

The ideas in this paper draw on a three-day symposium, held in Newfoundland and Labrador in May 2018. Titled "Coastal Communities in a Changing Climate: Impacts, Challenges, and Solutions for Gros Morne," [short title Gros Morne Climate Change Symposium (GMCCS)], the symposium was a joint venture between faculty at Grenfell Campus, Memorial University of Newfoundland, and the Gros Morne Co-operating Association (GMCA), also in Newfoundland and Labrador. The Grenfell Campus of Memorial University (n.d.) is located in the city of Corner Brook (population 20,000), and offers programs in environmental policy and sustainability, among others, with faculty engaged in community-based research and experiential teaching in the region. The GMCA (2019) is a non-profit organization that works with local communities, tourism operators, and Parks Canada to support the natural and cultural heritage of the UNESCO-designated Gros Morne National Park. The focus of the GMCCS was climate change knowledge transfer between researchers, practitioners, and community members, with attention to coastal issues and adaptation to changing ecological, social, and economic conditions. The event was funded through a jointly held grant from the Social Sciences and Humanities Research Council of Canada, and was built on existing links between the university and Gros Morne National Park.

The decision to hold a Gros Morne workshop on climate change adaptation emerges both from long-standing collaborations and specific events that further emphasized the need for in-depth discussions on climate change. In January 2018, Western Newfoundland and Labrador experienced devastating flooding, which resulted in towns being cut off for several days, the trans-Canada highway in the area washing out, and states of emergency being declared in Corner

Brook, the town of Trout River in Gros Morne National Park, and several other communities in coastal Western Newfoundland and Labrador (Connors, 2019; Quigley & Kean, 2018; Mercer, 2018). Another state of emergency was declared in December 2019 after heavy storms hit the area again. The scarcity of food supplies, water systems, and transportation infrastructure (some towns near Corner Brook were accessible only by helicopter/coast guard for several days) prompted difficult yet important public discussions on how to prepare for increasingly unpredictable weather patterns (McCabe, 2018). Within this context, the GMCCS aimed to provide a space for discussion about the local impacts of climate change, create a venue where practitioners, community members, and researchers could jointly consider adaptation strategies, and strengthen university/community knowledge mobilization networks.

Over three days, the GMCCS moved between two locations: Grenfell Campus in the City of Corner Brook for Day 1 and the town of Rocky Harbour in Gros Morne, for Days 2 and 3.

Day 1 of the GMCCS included research presentations and a roundtable of researchers and community members, all of which were broadcast on radio and online. At the conclusion of these sessions, participants and organizers drove to Gros Morne for a “shed party,” a uniquely Newfoundland and Labrador social event where the community comes together in a privately owned building (a garage, shed, etc.) to chat, share food and drinks, and socialize and celebrate.

Day 2 and Day 3 of the GMCCS included presentations from researchers (on rural capacity building; climate change decision-making), practitioners (coastal erosion; asset management), and a workshop on adaptation decision-making, which made use of the Coastal Communities Adaptation Toolkit jointly developed by several Atlantic Canadian Universities and Natural Resources Canada (Atlantic Climate Adaptation Solutions Association, [ACASA], 2016). Day 3 concluded with a panel discussion on future directions for Gros Morne. All of these sessions were broadcast with the radio component of the GMCCS organized and managed by Ryakuga Grassroots Communications, a community-based mobile radio broadcasting venture based in Nova Scotia (Ryakuga Project, n.d.). Podcasts of presentations, the symposium program, and teaching kits are archived on the event website (see <https://grosmorneclimatesymposium.com>).

Through this article, we are interested in how the above process—of knowledge mobilization, community building, and climate change adaptation discussions—interacted with community radio. In an increasingly digitizing world, where podcasts, social media, and streaming services offer access to a wealth of information, drawing on the resources and broadcasting capacity of community radio was a purposeful choice. First, in rural Newfoundland and Labrador, community radio continues to have an important role in communication, information sharing, and local identity building, and building on the area’s rich history of storytelling, music, and oral traditions. This is true of the Gros Morne and Corner Brook areas, where two community radio stations—the Voice of Bonne Bay (Norris Point, Gros Morne) and Bay of Island Radio (Corner Brook)—broadcast locally generated content, traditional Newfoundland and Labrador music, and a selection of international programs. Further, with Internet connectivity and cellular reception sometimes patchy in coastal Newfoundland and Labrador, radio continues to be a relevant form of communication, with shows about fishing broadcast common in the area. Finally, Ryakuga Grassroots Communications, the mobile radio organization that managed the GMCCS broadcast, has been present and active at many recent community meetings, as we sought to provide continuity in community engagement practices.

To engage with the topic, we have chosen a reflective format. This approach is inspired by the use of reflection to examine community/university partnerships and critical urban pedagogy by Allahwala et al. (2013). Through a trio of individual reflections, we consider the use of community radio within the symposium, the impact of this format on climate change knowledge translation, and the capacity of radio to support a diverse public sphere where challenging debates and discussions can take place. The reflective process has encouraged us to consider how our expectations of the ways in which engagement would be built through the workshop were altered through the inclusion of community radio, and the impact this event has had on our work as researchers, students, and instructors. The reflections represent our experiences as organizers of the event, and mirror conversations we had during and after the GMCCS about the meaning of engagement, the role of universities in their wider communities, and the importance of providing graduate students with community-based experiences. Two of the reflections are written by

graduate students who helped run the community radio broadcast for the event, and the third is by a faculty member who also co-organized the event.

Leveraging Place-based Identities of Radio for Community Engagements (Abdulai)

I took part in the symposium as a graduate student in diverse capacities: monitoring and controlling the radio feed, circulating microphones, interviewing participants, and running radio commentary. As an emerging rural researcher with an interest in community/rural planning, the radio caught my attention amid increasing encounters with varied mediums. Owing to my situational context, I reflect on the potential of community radio for climate change knowledge mobilization by arguing that local identities summoned by people when using radio can facilitate ownership of knowledge mobilization processes to enhance engagement activities involving outsiders. I am particularly interested in how the incorporation of radio at the symposium highlighted these themes and changed my perceptions around climate change knowledge mobilization.

Radio can provide a medium to engage place-based attributes that facilitate identity and placemaking (see Keough, 2010). The GMCCS revealed that the embedment of community radio within a community (Martin & Wilmore, 2010), through for example, integration of the set-up with local radio station and with the shed party, triggers a sense of identities as people engage through the medium. I recall a community participant inquiring if the on-site radio was live on Voice of Bonne Bay, the local station of the area. The individual provided testimonials on their climate change experiences in the last couple of years, only after receiving an affirmative answer, possibly reflecting radio broadcast's relevance to their community.

Relatedly, what I call relational confirmation (using an earlier point made by a colleague to emphasize one's argument) was another feature of radio observed at the GMCCS, and one relevant to local identity of radio. The referencing of assertions of fellow community members on the radio (including confirmation of others' experiences of intense winds ripping windows and washing away of driveways in the year prior), to me, shows association with what people considered a part of their place. It also shows a willingness to engage through a medium they identify with the community. The value of the radio in this regard lies in the freedom of the individual to freely

confirm observations using a medium a neighbor has used, a medium considered as a character of the community. Negotiating knowledge mobilization and engagement through radio, and the resultant validation of place-specific experiences can authenticate messages carried through to the people to aid participation in local action (Manzo & Perkins, 2006). For example, the sharing of testimonials by community leaders, youth and interested citizens, along with external actors created acceptance that allowed community members to contribute to the conversation. Hence, radio drives the larger community to identify with and own the discourse, even when message is carried by external actors.

The values and identities that people associate with radio present lessons relevant to climate change communication, as well as adaptation and mitigation actions (see also Devine-Wright, 2013; Fresque-Baxter & Armitage, 2012). Particularly, as Scannell and Gifford (2013) have earlier noted that people have inclination to engage with climate issues when place attachment is incorporated into messaging. The effective coupling of the radio with the workshop and transmission through a community radio had the ability to trigger sense of local identity in knowledge mobilization, which is mostly missing in alternative mediums of sharing of knowledge (Rooke & Odame, 2013). The all-inclusive conversations and dialogue around local climate change issues at the event was partly facilitated by the interlinked values people attached to the radio and their community. Hence, knowledge mobilization practitioners could leverage the values of place and identities attached to the radio, providing a common ground to negotiate community mobilization and social action.

Innovating Community Radio to Create Avenues for Climate Knowledge Translation (Chireh)

As a graduate student participant in the symposium, I was tasked to monitor the live radio transmission of all the activities, conduct one-on-one interviews with participants, and also introduce guest speakers. The symposium offered the opportunity to share, communicate, and translate climate change knowledge in/with coastal communities as a means to contribute to community development planning. Here, I reflect on the different perspective in which the radio was used to enhance community participation in shaping and translating climate change knowledge.

Over the years, the media has devised various means of telling local and global stories to give them prominence, drawing public attention and action in many cases (Carmichael, Brulle, & Huxster, 2017). This assertion underpins the significant influence of the media on public opinion and perception regarding events including the climate crisis. Therefore, it becomes appropriate to explore whether and how the media (radio) can serve as an avenue for the public to participate in discussing climate knowledge mobilization, particularly in rural communities. Scholars have questioned the capability of conventional media practices to effectively translate climate knowledge, particularly to the hinterlands that are potentially more vulnerable to climate extremes due to inadequate knowledge and planning (Westerhoff et al., 2018; Paton & Fairbairn-Dunlop, 2010). They have often recommended bottom-up approaches including the use of community radio to create avenues for collective mobilization and participation for community development. Although effective participation has been contested (Moser, 2010), engagement through the radio could overcome some of the barriers to participation, especially in mobilizing the locals. In our case, the radio gadgets were moved to the GMCCS room to facilitate live streaming of interviews and participants' interactions during discussions. This process has deviated from the linear, unidirectional radio practice where audience makes little-to-no input or feedback on issues being discussed (Shrestha, Burningham, & Grant, 2014; Nerlich, Koteyko, & Brown, 2010).

The local people used the radio to share and discuss stories about the impacts of inclement weather over the years. The shed party was another avenue some community elders and students used to share, with participants and radio listeners, their experiences about coastal erosion and deforestation in their communities due to climate change. These discussions present potential avenues to preserve and retain local historical climate knowledge and information. These stories could ignite passion, sense of identity, and ownership of the space and knowledge by community members and this was enhanced by the radio. These exposés could also facilitate learning among the young generation leading to multigeneration climate knowledge exchange. More importantly, these stories could travel beyond the immediate localities through the radio, which serves as repositories of identity traits including local climate knowledge

(Fernández-Llamazares et al., 2015). Additionally, the live broadcast, interviews and the circulated microphone were possible practices similar to town hall meetings, which local communities could easily resonate with. These practices innovated conventional media practices creating a platform to share experiences and learn climate solutions. The media team ensured that the symposium was broadcast live in all three venues: Grenfell campus, the Shed Party Venue, and the Rocky Harbor Hotel.

Radio also promoted participatory values that resonate with current climate advocacy by localizing climate knowledge mobilization and actions. Even the Intergovernmental Panel on Climate Change encourages localized climate actions to advance efforts in achieving the 1.5 °C greenhouse gas target by 2030 (Fawcett et al., 2015). Local participation, as negotiated through mediums like the radio, can be instrumental in this regard. The participatory nature and the live radio broadcast of the symposium provide a space to incorporate and reconcile local experiential climate knowledge with scientific research that has the potential to produce community-tailored actions (Fernández-Llamazares, 2015). Although climate change solutions are widely developed by scientists and researchers, localizing their actionable findings is often stifled by challenges such as inadequate finances, logistics, limited public spaces for engagement, and geographic inaccessibility of rural communities (Krawchenko, Keefe, Manuel, & Rapaport, 2016). The live radio broadcast in the symposium acted as a localized fora to disseminate climate action strategies and solutions, a platform which Okwu, Kuku, and Aba (2007) support as the most effective and appropriate medium for rural emancipation programs. As scholars and climate policy advisors, we can follow this trajectory by “localizing” radio dialogues, particularly in translating and advocating for local-based climate solutions and action.

Building a Public Forum Through Community Radio (Tchoukaleyska)

Community radio proved to be a valuable aspect of the GMCCS. As a co-organizer of the symposium and faculty at Grenfell Campus, Memorial University, my role involved developing the thematic focus of the event and contributing to the community engagement sessions. In the initial phases of organizing, we viewed community radio as an opportunity to engage with a diverse regional audience. As the symposium got

underway, it became apparent that as a medium and as a process, radio had far wider implications for community engagement: The materiality of broadcasting equipment (microphones, cables, boards) encouraged conversation between participants and researchers; the rhythm of passing microphones through the audience led to an informal sociability that translated into dynamic small-group discussions; and the sense of a wider listening public seemed to prompt a clear (in terms of diction) and nuanced (in terms of issues raised) conversation about climate change that directly spoke to ongoing community needs.

Through this piece, I would like to reflect on community radio as a sociocultural process. My interest is twofold. First, during the symposium, it was evident that the texture of radio transformed how participants communicated with each other. And second, in the context of Gros Morne—where distances are considerable and weather a frequent deterrent—community radio took on the quality of a public forum that mimicked the values of public space. This altered how I understand the notion of “public space” and nudged me to consider how my current research on urban public space can intersect with the dynamics of rural Newfoundland and Labrador communities. My reflection draws on the work of McNaught, Warrick, and Cooper (2014), who have questioned how we can best communicate climate change information, and Gaynor and O’Brien (2010) who have identified radio as relevant to community development. I am interested in how rural “publics” are constituted, and the possibilities and limitations of local broadcasting to creating a sense of public engagement.

Within urban studies and geography literature, the idea of public space is well researched. Often, public space is viewed as a site where a range of voices are present, and civic and judicial rights asserted (Mitchell, 2003). It is also a place of sociability where residents can meet, speak, and interact with friends, neighbors, and strangers (Watson & Studdert, 2006). Integral to urban life, public space is viewed as both a physical location and a social relationship. In rural areas, the function of public space is more complex. For instance, while public space in urban areas is often constituted by parks, sidewalks, plazas, and a range of semi-private spaces, in rural areas, much of this infrastructure is absent (Tucker & Matthews, 2001). Instead, rural sites might include areas zoned as “open space” (including beaches and trails), and

a heavier reliance on semi-public indoor community spaces such as libraries and recreational facilities (Most, 2011; Veitch, Salmon, Ball, Crawford, & Timperio, 2013).

In Gros Morne, we chose a hotel as the event venue, and made use of a large meeting space and surrounding shared facilities (hallway for registration, outdoor parking, etc.). Radio broadcasting equipment was set up at the back of the room, cables ran across to the microphone and speakers by the podium, and participants zipped around with portable microphones to capture questions. In the typology of public space, the hotel functioned as a semi-private space. The addition of radio to the milieu changed the room’s dynamics and, as noted previously, prompted people to interact with each other, seemed to break down hesitation quickly (i.e., between strangers, between attendees and presenters) because nearly everyone had to, at some point, handle the microphones and fiddle with the on/off switch. The radio equipment, in other words, encouraged interaction and engagement, it seemed to shorten the social distance between contributors, and acted as a common focal point. Alongside the capacity of radio to build public discussion, as noted in the reflections above, the tactile aspects of the broadcast helped build a sense of community—and one that, as an organizer, I had not anticipated.

The productive discussions created during the GMCCS depended, in part at least, on the presence of community radio and broadcasting equipment. The equipment prompted many conversations about radio, which then flowed into conversation about the symposium, about environmental planning, and the recent and severe flooding and landslide events. Reflecting on this experience, the presence of community radio encouraged a specific form of engagement, one that might be compared to the use of video recording equipment and digital mapping hardware/software for participatory engagement (Gordon, Elwood, & Mitchell, 2016; Tremblay & Harris, 2018). Alongside the live discussion and broadcasts, and podcasts for the event website, the materiality of community radio helped convert the hotel meeting room into a liminal public forum for dialogue, contact, and discussion.

Conclusion

In this paper, we have argued the utility of community radio for engagement and knowledge mobilization, with particular emphasis on

planning for (climate change) resilience in rural areas. We have highlighted that radio can be a form of community building, an avenue to engage with external actors, and an opportunity for residents to take ownership of issues by directly engaging in discussions. We positioned each reflection within the ethos, values, and attributes of community radio, as felt at the GMCCS. First, we emphasized the localism participants displayed as they engaged with radio, making references to other folks and contributed to discussions with a sense of affinity. We then argued, based on the observations, that such features and experiences associated with the radio are negotiable paths for triggering place-based climate action. Secondly, we shed light on the adaptability of community radio to local needs through the innovative set-up of having an on-site feed at the GMCCS grounds, a characteristic we present as a potential for nudging community participation in local actions. Lastly, we showed how the texture of community radio, specifically, the intimacy of how participants interacted, shared microphones, and communicated within the space created by the radio adds value to the local form and local participation, especially in the absence or limited availability of public spaces in rural areas. From that angle we argue that community radio transforms local communications to create experiences that mimic the values of public spaces.

Through these arguments, our paper has explored how the “re-creation” of community radio during the GMCCS facilitated climate change knowledge mobilization and engagement. Reflecting on the experience we would suggest that community radio has potential to buttress community interest and involvement in climate change action. Especially when used alongside more traditional knowledge mobilization activities, such as roundtables, presentations, and community and researcher led discussions, community radio can provide opportunities to transmit information and invite participation from a wider audience. Through the GMCCS event, we have drawn several lessons that we hope to apply to future knowledge mobilization workshops. First, we were surprised by the way in which the physical equipment of community broadcasts (microphones, cables, etc.) encouraged interaction amongst GMCCS participants, and created opportunities for conversation. Despite our efforts to carefully coordinate all aspects of the workshop ahead of time, including nominating university students to help with equipment, the informality that materialized as microphones

were passed around was beneficial, and had led us to reflect on the value of informality. Whether the sociability around equipment is specific to community radio, or whether it might extend to other kinds of live broadcasts, is a topic that merits further research. Alongside this, we recognize how the radio attempts to simplify scientific knowledge mobilization procedures and processes. Thus, experts, students, and community members (some were traditional knowledge holders) assembled at one venue to engage in deliberations, and this could be heard by members from locations within the radio’s catchment area. However, more research would be required to test it in different cases and contexts to ascertain its generalizability and reproducibility.

Finally, in rural areas such as Gros Morne, where long travel distances and inclement weather can make in-person workshop attendance more challenging, community radio has the benefit of allowing participation from home and is not dependent on rural broadband capacity. While we see value in community radio as an engagement method in many different settings, we may suggest that it has added value in contexts where Internet connectivity may be slower or absent, distance a factor in participation in knowledge mobilization activities, or where radio broadcasts may reach a demographic less easily engaged in climate change discussions through online forums.

References

- Al-hassan, S., Andani, A., & Abdul-Malik, A. (2011). The role of community radio in livelihood improvement: The case of Simli radio. *Field Actions Science Reports, The Journal of Field Actions*, 5, 1–6.
- Allahwala, A., Bunce, S., Beagrie, L., Brail, S., Hawthorne, T., Levesque, S., von Mahs, J., & Spotton Visano, B. (2013). Building and sustaining community-university partnerships in marginalized urban areas. *Journal of Geography*, 112(2), 43–57.
- Armstrong, N. (2010). *The role of community radio in enhancing identity formation and community cohesion among Caribbean Canadians in Toronto*. Master’s paper, Ryerson University-York University. Retrieved from <https://digital.library.ryerson.ca/islandora/object/RULA%3A3128/datastream/OBJ/The%20role%20of%20community%20radio%20in%20enhancing%20identity%20formation%20and%20community%20cohesion%20among%20Caribbean%20Canadians%20in%20Toronto>.

Atlantic Climate Adaptation Solutions Association [ACASA] (2016). Retrieved from <https://atlanticadaptation.ca/>.

Bello, A.K., & Wilkinson, K. (2017). The perception of community radio as public sphere and its potential impact on political action: Lessons from Tanzania. *Journal of Development and Communication Studies*, 5(1), 22–43. Retrieved from <https://doi.org/10.4314/jdcs.v5i1.2>.

Bisht, H., & Ahluwalia, N. (2014). *Community grassroots and climate change communication: Mapping grassroots experiences of the 'Shubh Kal' Project in Bundelkhand, Central India (research paper)*. Retrieved from https://cdkn.org/resource/mapping-grassroots-experiences-of-the-shubh-kal-project-bundelkhand-india/?loclang=en_gb.

Broadcasting Regulatory Policy, CRTC. (2010). Retrieved from <https://crtc.gc.ca/eng/archive/2010/2010-499.pdf>.

Canadian Radio and Television Telecommunication Commission (n.d.). Retrieved from <https://crtc.gc.ca/eng/home-accueil.htm/>.

Carmichael, J.T., Brulle, R.J., & Huxster, J.K. (2017). The great divide: Understanding the role of media and other drivers of the partisan divide in public concern over climate change in the USA, 2001–2014. *Climatic Change*, 141(4), 599–612.

Connors, C. (2019, January 19). West coast towns still in need of serious repair one year after 2018 floods. CBC, Newfoundland & Labrador. Retrieved from <https://www.cbc.ca/news/canada/newfoundland-labrador/2018-floods-nl-west-coast-1.4984413>.

Creswell, J.W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed.). Pearson Education, Inc.

Dale, A., & Naylor, T. (2005). Dialogue and public space: An exploration of radio and information communications technologies. *Canadian Journal of Political Science*, 38(1), 203–225. Retrieved from <https://doi.org/10.1017/S0008423905050080>.

Devine-Wright, P. (2013). Think global, act local? The relevance of place attachments and place identities in a climate changed world. *Global Environmental Change*, 23(1), 61–69. Retrieved from <https://doi.org/10.1016/j.gloenvcha.2012.08.003>.

Díaz, S., Settele, J., Brondízio E., Ngo, H., Guèze, M., Agard, J., Arneeth, A., Balvanera, P., Brauman, K., Butchart, S., Chan, K., Garibaldi, L., Ichii, K., Liu, J., Subramanian, S., Midgley, G., Miloslavich, P., Molnár, Z., Obura, D., Pfaff, A., Polasky, S., Purvis, A., Razzaque, J., Reyers, B., Chowdhury, R., Shin, Y.J., Visseren-Hamakers, I., Willis, K., & Zayas, C.N. [Eds.] (2019). *The Global Assessment Report on Biodiversity and Ecosystem Services: Summary for policymakers* (2019). Retrieved from https://ipbes.net/sites/default/files/inline/files/ipbes_global_assessment_report_summary_for_policymakers.pdf.

Dryzek, J.S., Norgaard, R.B., & Schlosberg, D. (2011). *The Oxford handbook of climate change and society*. Oxford University Press

Fairchild, C. (2006). The grinding gears of a neo-liberal state: Community radio and local cultural production. *Southern Review: Communication, Politics & Culture*, 39(2), 61–76.

Faisal, A.M., & Alhassan, A. (2018). Community access and participation in community radio broadcast: Case of Radio Gaakii, Ghana. *Journal of Development and Communication Studies*, 5(2), 85–102. Retrieved from <https://doi.org/10.4314/jdcs.v5i2.6>.

Farm Radio International (2018). Why radio? Retrieved from <https://farmradio.org/why-radio/>.

Fawcett, A., Iyer, G., Clarke, L., Edmonds, J., Hultman, N., McJeon, H., Rogelj, J., Reed, S., Alsalam1, J., Asrar, G., Creason, J., Jeong, M., McFarland, J., Mundra, A., & Shi, W. (2015). Can Paris pledges avert severe climate change? *Science*, 350(6265), 1168–1169.

Fernández-Llamazares, Á., Méndez-López, M.E., Díaz-Reviriego, I., McBride, M.F., Pyhälä, A., Rosell-Melé, A., & Reyes-García, V. (2015). Links between media communication and local perceptions of climate change in an indigenous society. *Climatic change*, 131(2), 307–320.

Forde, S., Foxwell, K., & Meadows, M. (2002). Creating a community public sphere: Community radio as a cultural resource. *Media International Australia Incorporating Culture and Policy*, 103(1), 56–67. Retrieved from <https://journals.sagepub.com/doi/pdf/10.1177/1329878X0210300109>.

Forde, S., Foxwell, K., & Meadows, M. (2003). Through the lens of the local: Public arena journalism in the Australian community broadcasting sector. *Journalism: Theory, Practice & Criticism*, 4(3), 314–335. Retrieved from <https://journals.sagepub.com/doi/pdf/10.1177/14648849030043004>.

Fox, J. (2019). *Community radio's amplification of communication for social change*. Palgrave Macmillan.

Fresque-Baxter, J.A., & Armitage, D. (2012). Place identity and climate change adaptation: A synthesis and framework for understanding. *Wiley Interdisciplinary Reviews: Climate Change*, 3(3), 251–266. Retrieved from <https://onlinelibrary.wiley.com/doi/full/10.1002/wcc.164>.

Gaynor, N., & O'Brien, A. (2010). Drivers of change? Community radio in Ireland. Retrieved from <https://core.ac.uk/download/pdf/11310238.pdf>.

Gaynor, N., & O'Brien, A. (2011). Because it all begins with talk: Community radio as a vital element in community development. *Community Development Journal*, 47(3), 436–447. Retrieved from <https://doi.org/10.1093/cdj/bsr058>.

Gordon, E., Elwood, S., & Mitchell, K. (2016). Critical spatial learning: Participatory mapping, spatial histories, and youth civic engagement. *Journal of Children's Geographies*, 14(5), 558–572.

Grenfell Campus (n.d). Retrieved from <https://www.grenfell.mun.ca/Pages/home.aspx>.

Gros Morne Co-operating Association. (2019). Retrieved from <http://grosbornecoop.com>.

Guo, L. (2017). Exploring the link between community radio and the community: A study of audience participation in alternative media practices. *Communication, Culture & Critique*, 10(1), 112–130. Retrieved from <https://doi.org/10/f9xcbw>.

Habermas, J. (1962). *The structural transformation of the public sphere*. Beacon Press.

Halpert, H., & Widdowson, J.D.A. (2015). *Folktales of Newfoundland (RLE Folklore): The resilience of the oral tradition*. Routledge.

Hampson, K., Leclair, M., Gebru, A., Nakabugo, L., & Huggins, C. (2017). “There is no program without farmers”: Interactive radio for forest landscape restoration in Mount Elgon Region, Uganda. *Society & Natural Resources*, 30(5), 642–657. Retrieved from <https://doi.org/10.1080/08941920.2016.1239148>.

Harvey, B. (2011). Climate airwaves: Community radio, action research and advocacy for climate justice in Ghana. *International Journal of Communication*, 5(2011), 2035–2058. Retrieved from <https://ijoc.org/index.php/ijoc/article/view/1364>.

Intergovernmental Panel on Climate Change (IPCC). (2007). *IPCC fourth assessment report*. Retrieved from <https://www.ipcc.ch/assessment-report/ar4/>.

Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services [IPBES]. (2018). Retrieved from <https://ipbes.net/>.

Keough, S.B. (2010). The importance of place in community radio broadcasting: A case study of WDVX, Knoxville, Tennessee. *Journal of Cultural Geography*, 27(1), 77–98. Retrieved from <https://doi.org/10.1080/08873631003593265>.

Klassen, J. (2007). “I am VOWR”: Living radio in Newfoundland. *Newfoundland and Labrador Studies*, 22(1). Retrieved from <https://journals.lib.unb.ca/index.php/NFLDS/article/view/10103>.

Krawchenko, T., Keefe, J., Manuel, P., & Rapaport, E. (2016). Coastal climate change, vulnerability and age friendly communities: Linking planning for climate change to the age friendly communities agenda. *Journal of Rural Studies*, 44, 55–62.

Lehnerr, I., St. Louis, V., Sharp, M., Gardner, A., Smol, J., Schiff, S., Muir, D., Mortimer, C., Michelutti, N., Tarnocai, C., St. Pierre, K., Emmerton, C., Wiklund, J., Köck, G., Lamoureux, S., & Talbot, C. (2018). The world's largest High Arctic lake responds rapidly to climate warming. *Nature Communications*, 9(1), 1290.

Lewis, P.M. (1984). Community radio: The Montreal conference and after. *Media, Culture & Society*, 6(2), 137–150. Retrieved from <https://doi.org/10.1177/016344378400600205>.

Mannar, I.S. (2014) Communicating climate change using community radios. *Journal of Biodiversity Bioprospecting and Development*, 1(1), 1–6. Retrieved from <https://www.hilarispublisher.com/open-access/communicating-climate-change-using-community-radios-2376-0214.1000114.pdf>.

Manzo, L.C., & Perkins, D.D. (2006). Finding common ground: The importance of place attachment to community participation and planning. *Journal of Planning Literature*, 20(4), 335–350. Retrieved from <https://doi.org/10.1177/0885412205286160>.

Martin, K., & Wilmore, M. (2010). Local voices on community radio: A study of ‘Our Lumbini’ in Nepal. *Development in Practice*, 20(7), 866–878. Retrieved from <https://doi.org/10.1080/09614524.2010.508104>.

McCabe, M. (2018, January 13). Residents reeling from ‘unprecedented’ flooding on Newfoundland’s west coast. *CBC Newfoundland & Labrador*. Retrieved from <https://www.cbc.ca/news/canada/newfoundland-labrador/safety-priority-unprecedented-flooding-newfoundland-west-coast-1.4486657>.

- McKay, B. (2009). Using community radio in Ghana to facilitate community participation in natural resource management. *Ecquid Novi: African Journalism Studies* 30(1),73–93. doi: 10.1080/02560054.2009.9653393
- McKee, E. (2012). *Constructing identity through community radio: Community building in Newfoundland and Northern Ireland*. Master's thesis, School of Graduate Studies, Memorial University of Newfoundland. Retrieved from https://research.library.mun.ca/6155/1/McKee_Erin.pdf.
- McNaught, R., Warrick, O., & Cooper, A. (2014). Communicating climate change for adaptation in rural communities: A Pacific study. *Regional Environmental Change*, 14, 1491–1503. Retrieved from <https://doi.org/10.1007/s10113-014-0592-1>.
- Mercer, J. (2018, January 13). Update: Corner Brook, Humber Arm South declare state of emergency amid flooding, road washouts in Western N.L. *The Telegram*. Retrieved from <https://www.thetelegram.com/news/local/update-corner-brook-humber-arm-south-declare-state-of-emergency-amid-flooding-road-washouts-in-western-nl-177008/>.
- Mitchell, D. (2003). *The right to the city: Social justice and the fight for public space*. Guilford Press.
- Moser, S.C. (2010). Communicating climate change: History, challenges, process and future directions. *Wiley Interdisciplinary Reviews: Climate Change*, 1(1), 31–53. Retrieved from <https://doi.org/10.1002/wcc.11>.
- Most, L. (2011). The rural public library as place: A theoretical analysis. In *Advances in Library Administration and Organization* (Vol. 30), D. Williams and J. Golden (Eds.), pp. 51–149. Emerald Group Publishing Ltd.
- National Campus and Community Radio Association [NCRA] (2019). Retrieved from <https://www.ncra.ca/>.
- Nerlich, B., Koteyko, N., & Brown, B. (2010). Theory and language of climate change communication. *Wiley Interdisciplinary Reviews Climate Change*, 1(1), 97–110.
- Okwu, O.J., Kuku, A.A., & Aba, J.I. (2007). An assessment of use of radio in agricultural information dissemination: a case study of radio Benue in Nigeria. *African Journal of Agricultural Research*, 2(1), 14–18.
- Paton, K., & Fairbairn-Dunlop, P. (2010). Listening to local voices: Tuvaluans respond to climate change. *Local Environment*, 15(7), 687–698. doi: 10.1080/13549839.2010.498809
- Pavarala, V., & Malik, K.K. (2007). *Other voices: The struggle for community radio in India*. SAGE Publications India.
- Perez-Teran, A.S., Tiani, A.M., Touko-Tchoko, M., & Tchatchou, B. (2015). *Testing the influence of radio programs on climate change knowledge: A pilot experience from the Congo Basin*. Bogor, Indonesia: Center for International Forestry Research.
- Potter, J., & Dunton, A.D. (2011). Canadian Radio-television and Telecommunications Commission. Retrieved from <https://www.thecanadianencyclopedia.ca/en/article/canadian-radio-television-and-telecommunications-commission>.
- Quigley, C., & Kean, G. (2018, January 14). Corner Brook, Trout River declare state of emergency because of flooding. *The Western Star*. Retrieved from <https://www.thewesternstar.com/news/local/corner-brook-trout-river-declared-state-of-emergency-because-of-flooding-177217/>.
- Riva, J. (2006). *A review of the available studies on the impact of community radio on its community*. Report to the National Campus and Community Radio Association. Retrieved from <http://www.ncra.ca/documents/riva-review-of-available-studies.pdf>.
- Rooke, B. (2012). *Campus/community radio in Canada: Linking listeners to broadcasters with web 2.0 technologies*. Master of Science thesis, The University of Guelph. Retrieved from <https://drive.google.com/file/d/0B1BtHEkqlOUZX2dZbmjkeWVYOW8/view>.
- Rooke, B., & Odame, H.H. (2013). “I have to blog a blog too?” Radio jocks and online blogging. *Journal of Radio & Audio Media*, 20(1), 35–52. Retrieved from <https://doi.org/10.1080/19376529.2013.777342>.
- Ryakuga Project (n.d.). Ryakuga Grassroots Communication. Retrieved from <http://www.ryakuga.org>.
- Scannell, L., & Gifford, R. (2013). Personally relevant climate change: The role of place attachment and local versus global message framing in engagement. *Environment and Behavior*, 45(1), 60–85. Retrieved from <https://doi.org/10.1177/0013916511421196>.
- Sheppard, S., Iype, D.M., Cote, S., & Salter, J. (2015). *Special Report: What works, and what doesn't for engaging people on climate change*. Pacific Institute for Climate Solutions. Retrieved from <https://pics.uvic.ca/sites/default/files/Soc.Mob.%20%20Pager%20.pdf>.

Shrestha, S., Burningham, K., & Grant, C.B. (2014). Constructions of climate change on the radio and in Nepalese lay focus groups. *Environmental Communication*, 8(2), 161–178.

Siemering, W. (2000). Radio, democracy and development: Evolving models of community radio. *Journal of Radio Studies*, 7(2), 373–378. Retrieved from https://doi.org/10.1207/s15506843jrs0702_10.

Singh, B.K. (2010). Social impact of community radio in Karnataka. *Indian Research Journal of Extension Education*, 10(2), 10–14.

Sussman, R., Gifford, R., & Abrahamse, W. (2016). *Social Mobilization: How to Encourage Action on Climate Change*. 20.

Tremblay, C., and Harris, L. (2018). Critical video engagements: empathy, subjectivity and changing narratives of water resources through participatory video. *Geoforum*, 90, 174–182.

Tucker, E. (2013). Community radio in political theory and development practice. *Journal of Development and Communication Studies*, 2(2–3), 392–420. Retrieved from <https://www.ajol.info/index.php/jdcs/article/view/112340>.

Tucker, F., & Matthews, H. (2001). ‘They don’t like girls hanging around here’: Conflicts over recreational space in rural Northamptonshire. *Area*, 33(2), 161–168.

Veitch, J., Salmon, J., Ball, K., Crawford, D., & Timperio, A. (2013). Do features of public open spaces vary between urban and rural areas? *Preventive Medicine*, 56(2), 107–111.

Wang, X., Thompson, D.K., Marshall, G.A., Tymstra, C., Carr, R., & Flannigan, M.D. (2015). Increasing frequency of extreme fire weather in Canada with climate change. *Climatic Change*, 130(4), 573–586.

Watson, S., & Studdert, D. (2006). *Markets as sites for social interaction: Spaces of diversity*. Policy Press.

Westerhoff, L., Sheppard, S.R., Iype, D.M., Cote, S., & Salter, J. (2018). Social mobilization on climate change and energy: An evaluation of research projects in British Columbia, Canada. *Energy Research & Social Science*, 46, 368–380.

Wilkinson, C. (2015). Young people, community radio and urban life. *Geography Compass*, 9(3), 127–139. Retrieved from <https://doi.org/10.1111/gec3.12197>.

World Association of Community Radio Broadcasters [AMARC]. (2019). Retrieved from <https://www.devex.com/organizations/world-association-of-community-radio-broadcasters-amarc-61159>.

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