Abstract

Connected with various resurgent and decolonizing projects, Canada has seen a surge of renaming and Indigenous land acknowledgement, which draw attention to Indigenous territories that have been overwritten through colonial naming practices. While renaming practices and land acknowledgments are contested for having merely representational effects, they may also be linked with decolonizing efforts. Our paper explores subversive (re)naming practices afforded by the free-form location identifying function on Twitter’s user profiles. It then draws a connection to issue-alignment in relation to the contested Trans Mountain pipeline as a means of considering to what extent toponymic selection is linked with actual issue alignment within the colonial context of resource extraction in Canada. We apply a mixed methods approach, based in digital methods that work with Twitter’s user profile location category. We extend our analysis through a qualitative reading of key subsets of the Twitter data, using a grounded theory approach to identify prevalent themes. In keeping with the anti-colonial nature of the tweets, we resist colonial categorization of the data and instead share an “un-typology” of Twitter toponyms, which we then connect to various expressions of anti-pipeline positioning. These mixed methods help us explore the entanglement of representational toponymic significance, infrastructural, in relation to the platform and the colonial nature of geolocational regimes online, and grounded, in relation to issue expression regarding the Trans Mountain pipeline.

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Introduction

In “Canada,” known to many Indigenous peoples as “Turtle Island,” the proposed Trans Mountain pipeline would more than double transport of bitumen from Alberta’s oil sands. National legitimation of the project is strong, relying on economic discourse that overwrites environmental concerns, as well as Canada’s lack of consultation with Indigenous peoples (Kraushaar-Friesen and Busch, 2020; Spiegel, 2021; Spiegel, et al., 2020). Rejecting settler-
colonial authority, pipeline resisters have turned to on-the-ground tactics including petitions and demonstrations —
and also to social media, where they share information, organize, and express resistance. On Twitter, profiles of users
engaged with the pipeline issue are associated with a diversity of locations including places like “Vancouver” and
“Ottawa,” recognized under “official,” colonial names. Twitter’s free-form location field, however, also enables users
to self-identify their locations and connect with one another by situating themselves according to Indigenous place
names or those that indicate anti-colonial positioning, such as “Secwepemculew” and “Occupied Syilx Territory.”

Connected with various resurgent and decolonizing projects, Canada has seen a surge of renaming and Indigenous land
acknowledgement, which draw attention to Indigenous territories that have been overwritten through colonial maps
and naming practices. While renaming practices and land acknowledgments are contested for having merely
representational effects (see âpihtawikosisân, 2016; Asher, et al., 2018; Tuck and Yang, 2012), they may also be “a
declaration of cultural resurgence, and an assertion of the right to authorize the decolonization of place” [1]. Our paper
explores subversive (re) naming practices afforded by the free-form location identifying function on Twitter and draws
a connection to issue-alignment in relation to the pipeline as a means of considering to what extent toponymic
selection is linked with actual issue alignment within the colonial context of resource extraction in Canada (Preston,
2017). Specifically, this paper addresses: (1) what is the nature of toponymic identifiers associated with pipeline-
engaged Twitter users in Canada; and (2) in what ways does anti-pipeline sentiment correlate with anti-colonial or
Indigenous-affiliated toponymic identifiers on Twitter? We apply a mixed methods approach, based in digital methods
(Rogers, 2013) that work with Twitter’s user profile location category. Digital methods are extended through a
qualitative reading of a key subset of the Twitter data, using a grounded theory (Clarke, 2005) approach to identify
prevalent themes. In keeping with the anti-colonial nature of the tweets, we resist colonial categorization of the data
and instead share an “un-typology” of Twitter toponyms, which we then connect to various expressions of anti-
pipeline positioning using both a co-hashtag analysis and qualitative reading. We conclude by discussing the
representational, infrastructural, and grounded significance of the flexibility afforded by Twitter’s free-form location
identifying function on user profiles.

We write together as two settler scholars living in so-called “Canada” and another writing from Denmark as a stranger
to the lands that are named and discussed in this paper. As students, the two of us in “Canada” have lived and attended
university in diverse communities, which the Canadian state has made accessible to us as settlers: on unceded Syilx
Territory, on the traditional territories of the Musqueam, Squamish, and Tsleil-Waututh peoples, in amiskwacîwâskahikan (4\graffiti\text{b} \text{city}) on Treaty 6 Territory, on traditional territory of the Kanien’keh:aka,
“Mohawk,” and the Anishinabeg, “Algonquin,” peoples, and on Treaty 13 Territory, traditional home of traditional of
many nations including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the
Wendat peoples. While these places are now being recognized by these names within our universities, this paper is one
attempt to engage Indigenous toponyms outside of institutional recognition practices in an everyday, virtual space
where we all — Indigenous and settler, as well as our Danish colleague — participate not as scholarly observers but as
relations, citizens, creators, information sharers, and fellows. Through a focus on toponymy rather than settler or
Indigenous identity, we hope to foster “place-based solidarities” [2] that unsettle representational, infrastructural, and
grounded or material manifestations of settler colonialism both on Twitter and in relation to the Trans Mountain
pipeline issue.

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**Settler colonialism and toponymy in “Canada”**

As with other settler colonial states, Canada has been systematically mapped and named in accordance with colonial
impulses to lay claim to “discovered” lands and establish settler ownership and belonging (Murphyao and Black, 2015;
Nash, 1999). The field of critical toponymy identifies how naming practices are slippery insofar as they appear neutral
and natural; however, they subtly communicate hegemonic narratives and are in fact used as mechanisms of colonial
classification and control (Berg, 2011; Rose-Redwood, et al., 2010; Wideman, 2015). In colonial contexts, toponyms
are thus tools of “cultural erasure in which the newly named and mapped places [are] appropriated as the indigenous
cultures [are] subordinated” [3] through the elimination of Indigenous languages in public spaces and the rupturing of
relationships between Indigenous cultures and the land — relationships that are often reflected in Indigenous place
names. As Carbaugh and Rudnick (2006) explore through the stories of Indigenous and non-Indigenous tour guides at the
border of Glacier National Park and the Blackfeet Reservation in the United States, place-naming is a “massively
depth symbolic expression. Each name brings some grand significance with it as a way of saying where we are, what
we are seeing, from where we are seeing it, and at what point in time” [4]. By overwriting epistemologies, languages,
Anti-colonialism and place names in “Canada”

Renaming practices and Indigenous land acknowledgement in Canada can be understood within broader anti-colonial movements of both Indigenous resurgence and unsettling of settler histories and emplacement on the land. Toponymic resistance in Canada varies in expression, including recognition of Indigenous toponyms in institutional acknowledgements, use in informal conversation and storytelling, inscription of Indigenous place names on maps, and the emplacement of toponyms in the built environment via monuments and street signs. Indigenous groups and individuals typically lead these efforts. As a resurgent practice, place naming is an expression of self-determination and an enactment of Indigenous presence on the land (âpihtawikosisân, 2016). Many Indigenous place names articulate knowledge of the land and relations with the land (Heikkilä and Fondahl, 2010), and their (re)use not only refuses the violence of colonial erasure (Sockbeson, 2016) but also asserts Indigenous knowledge systems, cultures, and connections to place (Rose-Redwood, 2016). Renaming may also support efforts to reclaim land and assert Indigenous autonomy and governance within a broader decolonizing movement (Asher, et al., 2018).

While many Indigenous peoples use place names in their languages to reclaim identities, histories, and land-based knowledges, institutional and activist land acknowledgments bring these place names into universities, museums, art venues, and other public locations as a means of unsettling settler geographies. Recognition of Indigenous toponymy is one response to the Canadian Truth and Reconciliation calls to action (Truth and Reconciliation Commission of Canada, 2015), which call settler institutions such as schools and post-secondary institutions to publicly reflect on their colonial foundations. Many land acknowledgment and renaming projects have been initiated and led by Indigenous peoples (âpihtawikosisân, 2016) and are grounded in Indigenous forms of political and cultural acknowledgement (Alfred and Corntassel, 2005; Snelgrove, et al., 2014; Wilkes, et al., 2017). In this context, land acknowledgements are created to be subversive, pedagogical tools intended to confront settlers with genocide, land theft, and cultural destruction (Asher, et al., 2018), and to indicate the vivacity and continuance of Indigenous peoples, knowledges, and cultures in the face of these violences (Robinson, et al., 2019). Despite these possibilities, forms of official toponymic recognition have been critiqued by Indigenous people for re-entrenching state and institutional authority over political recognition (âpihtawikosisân, 2016; Rose-Redwood, 2016; see also Coulthard, 2014, 2007). Further, the rote repetition of land acknowledgements is critiqued for appropriating Indigenous toponymy within narratives of settler innocence that perpetuate inaction on material decolonization (âpihtawikosisân, 2016; Asher, et al., 2018; Hewitt, 2019; Murphyao and Black, 2015; see also Tuck and Yang, 2012). In this case, the land acknowledgment itself is seen as vacuous, as “it is the follow-up that counts: the redistribution of lands and resources; the dismantling of systems that uphold colonial power; the end of oppression and exploitation; learning to be uncomfortable, as well as practising acceptance not avoidance” [8]. It is with these critiques in mind that we seek to understand the nuances of toponymic identification on Twitter, which is an entanglement of representational significance, infrastructural, in relation to the platform and the colonial nature of geologicolational regimes online, and grounded, in relation to issue expression regarding the Trans Mountain pipeline.
Critical toponymy and social media

Renaming practices and land acknowledgments are connected to the land, but they take virtual form when expressed on Twitter. While the Internet has overall been grounded in geography since the death of cyberspace in the year 2000 (Rogers, 2013), this grounding has mostly been juridical, and based on already existing and hegemonic understandings of geography and land. It is thus key to understand toponymic resistance within the coloniality of naming practices within virtual spaces, which also carry with them both representational and material or infrastructural power. As Alderman (2009) identifies, virtual spaces indeed provide “social and symbolic ‘gathering space’,” [9]; however, these are not equitable in nature, augmenting the visibility of particular perspectives and de-legitimizing others. Berg and Vuolteenaho (2009), for instance, identify the “power that technocratic-authoritative toponymies exert in modern societies” [10] by systematizing spatial nomenclature online and erasing (diverse) local place names, thus silencing Indigenous cultures and languages. Along with material geolocational regimes such as house numbers and street names, therefore, we argue that geographic information systems (GIS) databases, standardized domain naming, and other virtual locative technologies function similarly to what Rose-Redwood, et al. (2010) term “calculable spaces”; they may be used for to regulate representation and communication, as well as for data gathering and social control (see also Alderman, 2009).

Platforms have become infrastructural, reconfiguring the communications and culture industries in accordance with their architecture and governance (Constantinides, et al., 2018). Social media networks in particular provide a discursive space embedded in public life by virtue of their ubiquity, visibility, and a vitality towards informing our social and political experience (Plantin, et al., 2018). Platform scholars have explored how digital interactions are variously shaped by power structures including markets (Nieborg and Poell, 2018; Steinberg, 2019), precarious labour (Roberts, 2019), technical affordances or constraints (Gillespie, 2018), and material considerations (Hogan, 2018). These factors come together in an ecosystem populated by a handful of massive and influential firms, whose choices structure hierarchies, dependencies, and the conditions of engagement for their users (van Dijck, et al., 2019). The choices made available to users on these platforms can also be considered infrastructural, thanks to the centrality of platforms as tools of engagement and expression on a global scale, leveraging net effects to become de facto gatekeepers of our interactions with one another online (van Dijck, et al., 2019). The boundaries and affordances of these platforms — or more simply, what they do and do not allow users to do — are key to understanding them in relation to social life. Twitter is a media infrastructure that distributes information between users according to rules established by the platform, and as such controls “how content moves through the world and how this movement affects content’s form” [11].

By recognizing the limitations and possibilities embedded in Twitter’s technological affordances, researchers must consider not only the choices being made by users but contextualize those choices in light of what options users are permitted or encouraged to pursue. Twitter’s free-form location identifying function on user profiles is a technological affordance that allows for a greater variety of expression than do pre-set calculable locations. While precise location services may be attached to individual tweets (Twitter, 2020), user profiles are not limited to a predetermined set of official place names. This shift from static and standardized to more malleable and emergent naming options creates an opportunity for creative, political, and personal expression for users. Following Majchrzak, et al. (2013), we consider this affordance as the “action potential that can be taken given a technology” [12]. Unlike online articulations of the “spatial self” (Schwartz and Halegoua, 2015) that rely on recorded proof of experiences in offline spaces, Twitter location identifiers require no performance by geotagging, by posting images with landmarks (Instagram, Facebook), or through tracking on maps (Foursquare) to prove the user is located where they claim to be. The free form location identifier also means locations are not limited to a set of official place names, and users can identify as hailing from “the school of hard knocks” or “Hogwarts” just as easily as they can Dubai or Vancouver.

Location-aware technologies are intimately tied to questions of surveillance and privacy, power and discipline, and they reinforce off-line hegemonic naming practices (de Souza e Silva and Frith, 2012). That geolocation technologies enable surveillance of a user base leads to power asymmetries, and techniques of controlling and filtering information reinforce power dynamics that may further marginalize Indigenous knowledge. Because location identifiers are less tied to “calculable spaces,” Twitter provides a unique site to explore toponymic resistance in relation to other popular calculable space platforms such as Instagram and Facebook. As a virtual space, Twitter is relatively abstract, without strong connections to land or location built into use of the platform. While municipal or landmark locations are sometimes attached to tweets, since June 2019 precise geotagging services have been unsupported on the platform, and location sharing information requires a user to opt-in (Twitter, 2020). This had led to a reduction of location identifiers attached to individual tweets or sharing of tweets around specific locations, aside from photos of key events. Further, the text-based and news-based nature of the platform often dislocates tweets from geography, a decontextualization.
process that is augmented by the retweet function, wherein anyone anywhere can share any tweet. Responding to the limited location data, some location-oriented Twitter research thus focuses on methods of inferring user locations or socioeconomic status (Mahmud, et al., 2014; Ajao, et al., 2015; Abitbol, et al., 2019). At the same time, user profile location on Twitter is a free-form field that enables users to identify expressively with particular locations as they wish, unlike Facebook or Instagram’s established location tags, which reinforce approved, official, and colonial names. Insofar as “the manner in which certain locations or activities are named, captioned, or annotated can be understood as performative” [13], this freeform location field then becomes a site to explore anti-colonial toponymy.

Methodology and dataset

This paper examines toponymic practices of an undifferentiated group of Twitter users who engage with the Trans Mountain pipeline controversy on the social media platform. The paper examines the use of Twitter’s user profile location category as a space for doing toponymic politics by listing Indigenous or anti-colonial place names, rather than those of settler-colonial origin. To study this topic we have taken a mixed methods approach, based in digital methods, and extended through a qualitative reading of key subsets of the Twitter data. Digital methods is a broad term which intersects with and is used to refer to research on controversy analysis (Venturini, 2010), digital sociology, and digital science and technology studies (Ruppert, et al., 2013). We here refer to digital methods as the repurposing of the embedded tools of social media platforms, including location identifiers and hashtags, with the ambition of grounding claims about reality in the online, rather than simply analyzing the dynamics of platforms themselves (Rogers 2015, 2013).

Using the Digital Methods Initiative-Twitter Capture and Analysis Toolset (DMI-TCAT) (Borra and Rieder, 2014), Twitter was queried for the following terms, which include pro-pipeline, anti-pipeline, and neutral terms: stopkm, buildkm, kindermorgan, stopkindermorgan, notmx, transmountain, transmountainpipeline, protecttheinlet, tinyhousewarriors, keepcanadaworking. These terms were selected through a snowball method over a period of months, ensuring minimal issue “bleed.” Tweets were extracted in a query bin from 26 June 2018 to 7 July 2018, totalling 27,000 tweets from 13,000 users. While this is a relatively short time period, the 3 July blockading of oil tankers by Indigenous and Greenpeace activists and climbers suspended from a Vancouver bridge in resistance to the Trans Mountain pipeline made this period interesting for our issue as it likely provides a spike in Twitter activity. We sorted user profile locations to identify 12,416 tweets produced by 5,098 users situated in various locations in Canada. All tweets from outside Canada were removed from the set, as they were not relevant to this study. Using only the Canadian set, we then manually coded all user profile locations associated with Indigenous and anti-colonial location identifiers in the broadest sense, resulting in a subset of 576 tweets from 281 distinct users who apply 156 different Indigenous or anti-colonial place names. To be identified as Indigenous or anti-colonial, a toponym utilizes an Indigenous language, references an Indigenous territory (whether Indigenous or state-defined), draws attention to colonial relations, or resists colonial naming practices in the ways described below. The first stage of our analysis involves an un-typology of Twitter toponymics that explores resistant patterns of naming practices and land acknowledgement on the platform.

The second component of our study involves analysis of the tweet content to determine the issue expression of Twitter users aligned with either mainstream or Indigenous and anti-colonial toponyms as defined above. Following a digital methods approach, we work with the tools embedded in the platform — in this case, hashtags and tweet text — to map and analyze how the two groups discuss the Trans Mountain pipeline controversy according to an anti-colonial understanding of extraction and environmentalism. Our study follows established digital methods regarding hashtag analysis (Bruns and Burgess, 2015; Marres and Gerlitz, 2016), which emphasize the strategic and connective use of hashtags by users interested in participating in a particular dialogue, so that “co-occurrence of hashtags can be read as discourse” [14]. In order to conduct a co-hashtag analysis, we use the visualization software Gephi (Bastian, et al., 2009) to highlight frequently used hashtags via the size of nodes and accompanying text, as well as to map associations between hashtags frequently used in conjunction. We also apply a modularity algorithm, which identifies the density of connections between posts and clusters accordingly. Two network graphs, one associated “Anti-Colonial” (Figure 1) toponyms, and one with “Mainstream” (Figure 2) toponyms, form the basis for our analysis.
Figure 1: Co-hashtag graph showing the “Anti-colonial” subset. Size of words correspond proportionally to the size of the underlying node, which in turn is determined by the number of occurrences in the dataset. Colors are based on a calculation of the “modularity” of the different nodes, assigning them a cluster based on the number of connections between nodes.
Finally, we qualitatively analyzed the content of the 576 tweets using a grounded theory (Clarke, 2005) approach to identify prevalent themes. The dataset was subsequently coded using the themes, supplementing the digital methods-based hashtag-analysis with a qualitative interpretation of the actual content of the tweets, again according to an anti-colonial approach. It should be noted that 508 of these 576 tweets are so-called “retweets,” meaning that they repost a tweet made by someone else. The significance of retweeting is a complicated topic subject to much other research (boyd, et al., 2010; Firdaus, et al., 2018; Majmundar, et al., 2018) beyond the scope of this paper, but we interpret retweeting in this context as being efforts to generate awareness, signal-boost, or express affinity with messages contained in the original tweets.

Figure 2: Co-hashtag graph showing the “Mainstream” subset.
An un-typology of Twitter toponymics: Representational and infrastructural significance

We describe our analysis of Twitter toponymics as an “un-typology” in an effort to follow the resistant practices of the Twitter users we are tracing, as well as to ourselves resist the violent standardization, recognition, and categorization inherent to colonialism, which draws land and people into settler structures. In keeping with critical toponomy, we note in the user population the “performative force that every day, embodied [and digital] speech acts can play in undermining institutional assertions of a monopoly over legitimate forms of toponymic inscription” [15]. Not only do Twitter users make use of the free-form location profile field for Indigenous and anti-colonial place names, but they do so in ways that defy simple and artificial categorization and thus remind us of the violence of colonial toponomy. In keeping with users’ resistant and flexible usage of the free-form field, we here describe loose clusters of toponyms, rather than outlining strict categories or precisely quantifying toponymic practices, both of which risk reifying categories rather than expressing the fluidity of toponymic resistance and, indeed, how diverse toponyms capture multiple and overlapping ways of conceptualizing location. Instead, we hope to draw attention to the representational and infrastructural significance of toponymic signifiers by users associated with the Trans Mountain pipeline issue.

By far, most location identifiers indicate Indigenous territories through a variety of overlapping practices that evidence how territory is not merely spatial but is a complex of land, people group(s), language, and history. Most location identifiers reference Indigenous territories and lands, such as “K’omoks/Pentlatch Territory” and “Muwekma Ohlone Land.” These are at times modified by the terms “ancestral” or “traditional,” which allude to the historic and enduring nature of Indigenous territories. Some location identifiers draw attention to the connection between territory and specific Indigenous people groups, through such phrasing as “traditional territories of the Snuneymuxw people,” binding land with human communities. In a number of cases, users link territory with multiple Indigenous peoples whose territories overlap, as in “Musqueam, Tsleil Waututh, and Squamish Territory.” A noticeable number of users list colonial and Indigenous toponyms together, through such identifiers as “Lekwungen Territory/Victoria” and “Denendeh or Northwest Territories,” which make obvious the co-existence of Indigenous and colonial presence on the land. Some references to Indigenous territories involve mention of First Nations bands and reserves as defined by the state via the Indian Act. These at times overlap or are used in conjunction with the Indigenous toponymic identifiers described above. The intermingling of state and Indigenous toponyms evidences the complexity of the colonial system, where lands may be both demarcated for colonial governance and also physical, cultural, and spiritual homelands for particular peoples.

The connections between culture, land, and knowledge can be seen where territories are indicated in Indigenous languages, such as “xʷməθkʷəy̓əm” (Musqueam). In a related yet slightly different practice, some location identifiers apply Indigenous names in place of colonial city names, such as the Cree “amiskwaciwâskahikan” (“Edmonton”) and the Mohawk “Tsi Tkanâthere” (“Brantford”). While the combination of colonial and Indigenous toponyms described above draw attention to the co-existence of settler and Indigenous presence, the replacement of official place names with Indigenous names more overtly decentres state authority by overwriting colonial toponyms. The presence of Indigenous languages in territorial naming and acknowledgements holds particular power, as Couture asserts, in “demonstrat[ing] the failure of the colonial genocidal policies aimed to eradicate Indigenous epistemologies which were attached through the Indian residential school system. When Indigenous peoples speak in their languages, it is a powerful intervention expressing their survival and resistance that is a result of the collective efforts of generations” [16].

Colonial relations are also made explicit through a number of relational toponymic signifiers that indicate treaties or lack of treaties on specific lands. By listing “Treaty 6” or “Treaty 1” as location identifiers, for instance, users indicate relations between Indigenous people and the Government of Canada as determined by historic treaties. Though the specific intentions and meanings of these treaties are contested, they indicate ongoing legal rights and responsibilities for Indigenous and non-Indigenous peoples, as well as for the state, governing relations on specific lands. Not all lands in Canada are governed by treaties, and these differential relations are evident through location identifiers on Twitter. For instance, by modifying an Indigenous territory with the word “unceded,” as in “Unceded Algonquin” or “Unceded Secwepemc Territory,” Twitter users draw attention to the absence of a treaty in a particular region. By doing so, these users indicate the illegal dispossession of land from Indigenous peoples, implying ongoing Indigenous sovereignty and claims to land in these regions.

While the references to treaties and unceded territories name the legal statutes governing relations and land claims in particular regions, other toponymic identifiers focus on the theft and occupation of Indigenous lands by the settler
rename and resist settler colonialism: Land acknowledgments and Twitter's toponymic politics

colonial state. Specifically, a number of users modify their references to Indigenous territories with such words as “stolen,” “occupied,” and “colonized.” Some non-Indigenous users locate themselves as “settlers” or “guests” on specific Indigenous territories, drawing attention to their own positions in relation to both particular territories and the settler state. The terms “settlers” and “guests” are contentious and fraught (Snelgrove, et al., 2014), and they may take on different meanings in relation both to different Indigenous groups (Koleszar-Green, 2018) and for non-white settlers (Phung, 2011). Problematically, the term “settler” may conjure negative emotions in non-Indigenous people who do not wish to acknowledge their relationship to the settler state. Alternatively, it may be used by settlers simply as a “move to innocence” (Koleszar-Green, 2018; Tuck and Yang, 2012), replacing material decolonial work with what may in this case be understood as online virtue-signaling. Similarly problematic, the term “guest” may presume welcome where such welcome is not extended. Despite these limitations, declaring oneself a settler indicates awareness of being on stolen land. And identifying as a guest may indicate recognition that as a Guest they have responsibilities to learn about rematriation of the land (including for example, stewardship and possession are foundational to environmental revitalization). The Guest learns the history and current story of the land that they are Guests on! They politicize that understanding. Finally, they listen to and learn protocols which do not appropriate but unsettle the privilege of ignorance. (Koleszar-Green, 2018)

While it is impossible to identify user motives from the location identifiers alone, the use of these terms, as well as the modifiers indicating the colonization of Indigenous territories, draw attention to differential relations (including, potentially, rights and responsibilities) to the locations listed in user profiles.

Finally, several users identify their location as “Turtle Island,” a reference to an origin story similar within some Indigenous groups located on the continent now known as North America. As a reference to an origin story, the name “Turtle Island” evokes a time before this land was claimed and colonized by Europeans. As such, it reinstates specific cosmologies that have been dismissed, denigrated, and overwritten through the process of colonization — though only the cosmologies of specific nations that share this origin story, such as the Haudenosaunee. At the same time, Métis author, āpihtawikosisān (Zoticus) (2018), tweeted that “It’s specific to certain Nations, and not a term from my own community. It’s become this pan-Indian thing that cheeky settlers love to use to position themselves as more aware too.” So, while “Turtle Island” does carry cosmological significance for some Indigenous communities and may indicate an anti-colonial stance, the term may also be interpreted as mere virtue signalling when used by settlers, as it does not demand learning about specific lands, histories, and peoples.

Taken together, the multiple and overlapping toponyms used within the profile location field evidence that for Twitter users, location is not merely spatial. In the tiny space of the location profile field, users capture the relational, historical, political, culturo-linguistic, legal, and cosmological nature of land and location. Such a rich representation of location indicates the colonial nature of many platforms, which rely on predetermined locative categories for data gathering, management, analysis, and surveillance, thus limiting location identifiers to sanctioned place names or GIS databases of official toponyms. The difficulties we experienced in sorting, naming, and analyzing toponyms is directly in conflict with such management tactics and evidences a small, surprising, and welcome reprieve from data surveillance on social media.

Twitter toponymics and the Trans Mountain pipeline issue

In an effort to explore whether Indigenous and anti-colonial place names hold primarily representational and infrastructural significance or whether they are connected to grounded, decolonizing efforts, we now turn to an analysis of tweet content associated with these toponyms. Tweets are oriented around the Trans Mountain pipeline issue, a controversy that spans local, provincial, federal, and Indigenous politics, and stands at the intersection of climate and environmental issues and Indigenous sovereignty. The controversy is particularly relevant to our study due to the colonial nature of the issue, particularly as both extractivism (Preston, 2017, 2013; Simpson, 2013; Whyte, 2018; Willow, 2016) and also mainstream environmentalist resistance to extraction (Gilio-Whitaker, 2019; Korteweg and Root, 2016; Mars, 2015; Paperson, 2014) are associated with displacement of Indigenous peoples from the land, which is conceptualized as a resource for either economic interests or environmental preservation. In this context, we
aim to analyze tweets according to an understanding of settler colonialism as an “ecological form of domination” [17], which brings environmental violence with particular impacts on Indigenous peoples, necessitating decolonial expressions of environmental justice (Gilio-Whitaker, 2019; Ilyniak, 2014). Our two-stage analysis begins with a comparison of the hashtag discourses of the tweets associated with “Anti-colonial” (Figure 1) or Indigenous toponyms, as well as tweets associated with “Mainstream” (Figure 2) toponyms, according to the initial categorization of tweets described above. First, we identify patterns in how these located subsets issuefy the pipeline through the connective affordance of the hashtag. The visualizations created in Gephi allow us to see the most frequently used hashtags via the size of nodes and accompanying text, along with colored clusters of hashtags frequently used in conjunction with one another. We then conduct a qualitative reading of all tweets associated with anti-colonial toponyms to explore the nuances of tweet content.

Co-hashtag analysis

The co-hashtag graphs for the Anti-colonial and Mainstream subsets contain significant overlaps. They both capture the complexity of the Trans Mountain pipeline issue as it intersects with climate issues, Indigenous rights, the health of democracy (#electoralreform), and the preservation of ocean habitats and orca whale populations. Both also link the pipeline across civic (#vanpoli), provincial (#bcpoli, #abpoli), and national (#canpoli) politics; for both sets, #bcpoli and #canpoli are central nodes. With regards to Indigenous sovereignty, both subsets contain similar clusters around #protetcetheinlet, which references an Indigenous-led anti-pipeline movement. Both clusters not only reference #firstnations and #indigenous peoples more generally, but also reference #waterprotectors, a term of for Indigeneous care and protection of the water. In both graphs, mention of #reconciliation contextualizes Indigenous rights in relation to the Canadian state, which is currently seeking to rebuild relations with Indigenous peoples. Proximal in both subsets to #protetcetheinlet is the phrase, #waterislife, which evokes Indigenous sovereignty and wellbeing in relation to the water (see Battiste, 2005; Guerrero, 1997; Simpson, 2004). The phrase also alludes to the resistance to the Dakota Access Pipeline in the United States, where the Lakota expression of “Water is Life,” Mní Wičíni, became a rallying cry. The use of this phrase in conjunction with the Trans Mountain pipeline evokes the transnational nature of extractive issues in relation to Indigenous sovereignty. Each subset also contains a marginal cluster around the #tinyhousewarriors, a group of Indigenous water and land protectors stationed along the pipeline route in Secwépemc territory, who oppose the pipelines construction due to lack of Indigenous consent. These similarities evidence diverse and nuanced user expressions regardless of profile location identifiers.

Despite these similarities, notable differences distinguish the Anti-colonial set from the Mainstream. Only the Mainstream subset contains pro-pipeline hashtags that critique pipeline activism, such as #stoptheprotestors and #dumbfools, while the hashtags in the Anti-colonial set focus explicitly on anti-pipeline resistance. Resistance is also more oriented around decolonization and justice in the Anti-colonial subset, which includes a number of hashtags relating to #indigenousrights and #humanrights, including #unjustifiedinfringement. These more explicit references to rights within the colonial state capture how “opposition [to extraction] cannot emerge from environmentalism alone, but will instead arise from movements that pose systemic challenges to conjoined processes of social, economic, and environmental injustice” [18] within the settler colonial state.

Further, the two subsets differently position the fossil fuel industry in relation to climate issues and global economics. The Mainstream graph localizes the issue; the set is dominated by locations in the Canadian provinces of British Columbia and Alberta, specifically northern communities near the tar sands, including #ymm (Fort McMurray) and #fortmckay. Even though both subsets link Indigenous rights with climate issues, the Mainstream subset connects climate change locally to Alberta politics and oil (in blue), where #parisagreement and #globalwarming are clustered with #albertaoil, #oilsands, #oilandgas, #oilleak, #oilspill, and #abpoli. By contrast, in the Anti-colonial subset, climate change is proximal to global issues (in green), applying hashtags related to climate impacts such as #climaterefugees and #wildfires, along with the names of various international locations. The Anti-colonial climate cluster also includes hashtags related to renewable energy, including those that assert divestment more broadly, referencing multinational oil companies such as Chevron and Exxon. Additionally, the Anti-colonial subset links resistance to the Trans Mountain pipeline with Indigenous resistance to pipelines across North America, including #nokxl for the Keystone XL, #nodapl for the Dakota Access, and #nobbp for the Bayou Bridge pipeline. In addition to these international references, the Anti-colonial subset features a greater diversity of locations in general, with a large cluster of locations in Ontario at the top of the graph, indicating a regional interest in the issue and perhaps expressing solidarity in pipeline resistance that stretches beyond the localities directly influenced. Taken together, these hashtag patterns indicate a broader, more structural understanding of the pipeline issue than is evident in the Mainstream subset, connecting the issue to global capitalist extractive processes and invoking a conception of transnational resistance.

Qualitative analysis of tweets associated with anti-colonial locations
While co-hashtag analysis provides insight into how users connect the pipeline issue to other public discourses, a qualitative analysis of the specific tweets associated with anti-colonial toponyms enables a more nuanced understanding of the hashtags used in context. To establish the themes, we collectively read 100 tweets, refining our list of themes together and coding the tweets accordingly. Where applicable, tweets were coded according to multiple themes. We then divided the remaining tweets and continued coding, discussing any new themes that emerged. Finally, we closely reread all of the tweets from each theme to understand the nuances of the tweets according to our anti-colonial analysis. While our study identified a number of interlocking themes, we focus here on those that have not already been addressed in the co-hashtag analysis: (a) the heroism and beauty of Indigenous-led activism, including by Indigenous Water Protectors, (b) state intervention and policing of activism, (c) economic concerns, and (d) environmental impacts. Together, these themes evidence a cluster of resistant users that celebrate activism and question state authority.

The overwhelming focus of the tweets is anti-pipeline activism, which is not surprising as these tweets were captured during an aerial protest, where Indigenous and Greenpeace activists blocked oil tanker traffic by suspending themselves from the Second Narrows bridge in Vancouver. For our purposes, it is important to examine just how activism is framed within the tweets. Unsurprisingly, tweets share and reshare live news and updates of the activists as the demonstration progressed. While some Tweets mention only Greenpeace activists, most reference Indigenous Water Protectors, such as Tsleil-Waututh Watch House guardian, Will George. By quoting or retweeting Will George expressing, “I will remain the fierce opposition. It is in my blood to protect the water” (Hansen, 2018), Twitter users contextualize resistance in relation to Indigenous connectedness to land and water and amplify the actions of Indigenous activists. The phrase “water is life” is repeated, indicating the centrality of Indigenous resistance. Many of these references depict Water Protectors as heroic, and activism has an aesthetic quality in many posts. Certainly, the suspension of climbers from a landmark bridge, holding painted banners by Indigenous designers and photographed above the water in the sunset, makes for remarkable imagery. The text of the tweets acknowledges this beauty and perhaps draws attention to aesthetics as an activist tactic, emphasizing that not only is the work of these activists brave and beautiful, but the natural world — in all its beauty — is worth saving. Aesthetic descriptions also publicly capture the beauty of collective action, both via the gathering of community around a Sacred Fire at Burnaby Mountain, as well as within pipeline resistance more generally. Dominated by stories of beauty, collectivity, and bravery, anti-pipeline activism represents itself in opposition to mainstream media and state discourses of pipeline resistance — particularly Indigenous resistance — as militant or criminal. In this way, posts may function according to Deluca’s concept of “image events” [19], where posts are constructed with attentiveness to media amplification of activist goals.

As the protest progresses over time and the state intervenes, police actions and arrests are documented and shared by a large number of posts. Such documentation is common with resistance to extractive industries, particularly involving Indigenous peoples (Crosby and Monaghan, 2016), where policing and surveillance tend to uphold state interests in the pipeline and criminalize land defense and Indigenous assertions of sovereignty (Mars, 2015). Tweets heavily critique such state intervention, which criminalizes and places $5000 fines on Indigenous land defenders, while fining pipeline builder Kinder Morgan, a multi-billion dollar Texas-based company, a mere $920 for non-compliance in the use of fish spawning deterrents. Relatedly, many tweets celebrate resistance and arrest in opposition to familiar nationalist narratives that legitimize defense of pipeline infrastructure as a component of Canadian frontier exploration, innovation, and modernity (Barney, 2013; Dobson, 2017; Preston, 2017). By documenting and sharing images of police intervention, and by overturning national narratives, tweets openly question state authority.

The state is also questioned through tweets that assert economic arguments against the pipeline, which Canadian Prime Minister Justin Trudeau had recently purchased for $4.5 billion in May 2018. Many Twitter users consider this expenditure unnecessary, tweeting various iterations of: “No way! Tell #Trudeau & cabinet #NoKMBailout” (Hamel, 2018) and critiquing Trudeau for placing economic burden on taxpayers for an expiring industry. Some tweets explicitly draw attention to the role of the state in a capitalist economy, while others directly call out politicians for supporting corporate interests at the expense of citizens and taxpayers, and to the detriment of the future. Twitter users express frustration with their taxpayer dollars being spent to benefit a U.S.-based energy corporation to the detriment of the national deficit, quoting and sharing various economic reports, including one from local newspaper, the Georgia Straight: “Canada is weakening its finances by taking on unlimited costs to buy an unneeded pipeline with an uncertain future and giving an unusual profit to a U.S. company” (Smith, 2018). Such economic arguments directly counter pro-pipeline assertions that growth in the fossil fuel industry will promote jobs and economic growth for Canada. These economic engagements hold strategic significance in countering the popular binary between the national economy and environmental protection, climate issues, and Indigenous sovereignty in pipeline controversies.

A few tweets focus on the environmental impacts of the pipeline, specifically on freshwater habitats of salmon along
the pipeline route, as well as on the Pacific Ocean and harbours where increased tanker traffic associated with the pipeline will threaten endangered orca whale populations. For instance, an oft-retweeted post decries how “The last thing these 75 endangered orcas need is a #tarsands tanker superhighway running through their home” (Hudema, 2018). Though endangered orca whale populations certainly necessitate protection, these tweets potentially exhibit not decolonial but mainstream environmental approaches to the pipeline controversy, in which environmentalists problematically prioritize “protection of ‘natural’ environments and warm furry animals than … the rights of indigenous peoples whose stewardship of habitats and use of many warm furry animals is harder to encapsulate as a bumper sticker” [20]. At the same time, many of these references to habitat protection involve legal cases against Kinder Morgan, such as the company’s violations of BC’s Water Sustainability Act, indicating strategic signal boosting of legal issues in an effort to halt pipeline construction. Further, the prevalence of references to Water Protectors may indicate among some users a conceptualization of the water as connected to webs of non-human and human life, and the need to protect water for Indigenous people’s continuance.

Taken together, these themes indicate complex resistance to the Trans Mountain pipeline among users whose profiles are associated with anti-colonial toponyms. While there is some evidence of mainstream environmentalism through references to Greenpeace activists as leaders in pipeline resistance and repeated imagery of pristine oceanic landscapes, tweets are dominated by references to Indigenous sovereignty and resistance to colonial extraction. The resistance expressed in these posts complements and extends the findings of the co-hashtag analysis to indicate that anti-colonial toponyms may indeed be linked with a grounded decolonizing impetus.

**Conclusion**

The representational significance of renaming and resisting colonialism parallels some material strategies around Indigenous resilience and activism in Canada. One notable tactic that has gained traction in recent years is the defacing or removal of commemorative statues celebrating colonial leaders. While the dominant narrative around these monuments is that they celebrate men who have positively impacted the nation, such an ahistorical framing ignores violent, cruel, and white supremacist underpinnings of figures like Jack Deighton, Egerton Ryerson, and Sir John A. MacDonald. In an interview with the *New York Times*, art historian Dr. Erin L. Thompson identified the erection of such status as “a bid for immortality. It’s a way of solidifying an idea and making it present to other people” [21]. By defacing or removing these public works, activists refuse a narrative that forgets the mistreatment, dispossession and genocide of marginalized peoples that is irrefutable to the legacies of the men being venerated. Akin to these statues, the representational power of dominant toponymic practices legitimizes particular epistemologies in accordance with a settler state. Recalling that these names are naturalized at the expense of Indigenous ones, toponyms are also tools of cultural erasure, and overwriting existing Indigenous names and experiences is a practice of repression. Just as pulling down a statue can draw attention to settler-revisionist history, asserting an Indigenous place name normally overwritten by colonialism is also a refusal of state authority, and one that challenges and encourages dialogue around settler-Indigenous relations (Native Land Digital, 2020).

The free-form field on Twitter allows for a complex representation of place, as evidenced by the multiple ways users name — and therefore story — the land in relation to Indigenous territories, languages, people groups, and cosmologies, to colonial histories and policies, and to their own relationships with these places. Further, our difficulties in categorizing such diverse place names exhibits the infrastructural significance of Twitter’s free form field, which works against colonial categorization, surveillance, and control. It is important to keep in mind when considering these toponyms that profile location alone does not indicate whether the user belongs to the referenced Indigenous group(s) or is a non-Indigenous user acknowledging Indigenous land. The meanings of various toponyms described above may shift according to user identity, as we have alluded to above. While the intersection of user location and self-identification as Indigenous or non-Indigenous may be a topic for further research, we are interested here in the representational and infrastructural significance of how users take up the profile location field.

By exploring tweet content regarding the Trans Mountain pipeline, our paper provides some evidence that the land acknowledgments contained in user profiles do not hold merely representational power but are connected to positioning on a colonial issue. The co-hashtag analysis exhibits a group of Twitter users that contains overlaps with but is distinct from those who share mainstream or colonial place names in their Twitter profiles. Qualitative analysis reinforces and adds depth to the co-hashtag analysis by highlighting the particular nature of pipeline activism, as dominated by Indigenous water protection and resistance to state exploitation and violence. We recognize that interviews with Twitter users would more clearly indicate the extent to which users support and participate in
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decolonizing efforts. However, these findings indicate that social media land acknowledgements may differ from institutional ones, in that users who publicly self-associate with Indigenous or anti-colonial toponyms on Twitter may also align themselves with decolonial efforts. 

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Notes  

5. Sockbeson, 2016, p. 133.  
7. Rose-Redwood, 2016, p. 198; see also Rose-Redwood, et al., 2010.  
8. Hewitt, 2019, p. 34.  
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