Schooled by Scrolling the Trans Mountain Pipeline? Tracing (Anti)colonial Public Pedagogy on Instagram

by

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Abstract

In opposition to the Trans Mountain pipeline, overlapping networks of concerned citizens, Indigenous land protectors, and environmental activists have used Instagram to document pipeline construction, policing, and land degradation; teach using infographics; and express solidarity through artwork and re-shared posts. These expressions constitute a form of "public pedagogy," where social media takes on an educative force, influencing publics whether or not they set foot in the classroom. Working with digital methods, visual methodologies, and close reading practices, this dissertation draws on Instagram's large-scale data to trace and analyze how publics reinforce and resist settler colonialism as they engage with the Trans Mountain pipeline controversy online.

While much public pedagogy research focuses on the hegemonic functioning of culture, a study of the Trans Mountain issue provides a crucial analysis of social media's anti-colonial possibilities. Instagram's public pedagogy intersects in a social and ecological issue within and against the economies and cultures of digital media, racist and colonial representational regimes, and the broader ecology of relations under the settler state. Public pedagogy on Instagram indeed reveals a complex intermingling of user and platform agency in a pedagogy that takes on a connected, aesthetic, and situated force, according to the networked, image-based, and locative affordances available on the platform. While some visions and enactments are profoundly decolonial, mainstream colonial norms are unevenly reinforced, contested, subverted, and bypassed on a platform driven by corporate agendas and situated within colonial-capitalist processes. Considering the complexity of attending to these nuances from an anti-colonial perspective, this dissertation introduces an anti-colonial methodology for archiving, visualizing,

and interpreting large-scale digital data in accountable ways that undermine colonial hierarchies and categorizations inherent to data structuring and use.

This large-scale examination of the Trans Mountain issue public pedagogy contributes visions for Indigenous land protection and an anti-colonial approach to environmental justice emerging from participant publics, holding implications for more formal justice-based climate and environmental education, and opening spaces of possibility – along with the persistent restrictions – in working towards altered relations.

Preface

This thesis is an original work by Carrie Karsgaard. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name “TEACHING THE TRANS MOUNTAIN PIPELINE: (ANTI-COLONIAL PUBLIC PEDAGOGY ON INSTAGRAM,” No. Pro00100524, May 27, 2020.

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As this dissertation traces networks of situated relations, so is this work informed and supported within webs of people, places, and technologies, even as COVID-19 shifted our ways of working and being together.

There is insufficient space to thank my supervisor, Dr. Lynette Shultz, for her holistic mentorship, relational approach to academia, and ongoing kindness, support, and friendship, even as the pandemic and the flows of life altered timelines, workflows, and possibilities. Dr. Shultz has opened me to new ways of thinking and being through conversations at Remedy, Good Earth, or over Zoom, by links sent over WhatsApp, according to books exchanged and recommended, and through participation in collaborative research. It has truly been a gift.

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The bulk of this dissertation was completed outside of the university, in the space of a small home office and alongside dear friends and family inside my COVID-bubble and connected online, who have provided encouragement during difficult times and celebrated

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I am also thankful for the creativity, persistence, critique, and action of those working towards decolonization and altered relations, including in relation to the Trans Mountain pipeline. I aim to translate this dissertation into spaces that will support these efforts.

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Chapter 1: Introduction

In the settler state of Canada, known to many Indigenous peoples as Turtle Island, the Trans Mountain pipeline controversy reflects conflicting and hierarchical worldviews and agendas from a multiplicity of stakeholders including the environmental sector, Indigenous land protectors, governments (civic, provincial, and national), corporations, and interested individuals. The Trans Mountain pipeline has engaged various publics in both active support and resistance, including on the ground and over social media. As a British Columbian resident travelling to Alberta for school over the past few years, I could not ignore the differences in issue framing by the mainstream media in the two provinces. In Alberta, news reports were dominated by images of Premiers Rachel Notley and then Jason Kenney positioned in front of Canadian flags, along with graphs depicting the economic benefits of Alberta's oil industry. In British Columbia (BC), my morning news feed was filled with protest imagery from Vancouver, updates on the tiny houses being built by Indigenous land protectors along the pipeline route, and anti-pipeline statements from Premier John Horgan opposing federal government decisions. On Syilx territory in the Okanagan where I live, pro-pipeline billboards paid for by the government of Alberta appeared along the highway, touting its benefits for "all Canadians," despite how just north of us, the Secwepemc community at Blue River was actively resisting and blockading it. The contrast in government and media messaging across provinces was striking. To see how such messaging interacted with the public, I started following Trans Mountain hashtags on Twitter and Instagram. I wanted to see what environmentalists, Burnaby and Vancouver residents, and folks in other parts of Canada were saying – and doing – about the pipeline. As a settler situated person, I also wanted to understand the perspectives of various Indigenous groups and individuals beyond what was promoted to me by both industry and government, and to consider what an anti-colonial response to this environmental and extractive issue might look like. What could I learn about this issue from social media?

Public Pedagogy of the Trans Mountain Pipeline Controversy

The Trans Mountain pipeline transports diluted bitumen through roughly 1,150 kilometers of steel pipes through grasslands, mountainous forests, freshwater systems, coastal rainforests, and marine ecosystems. It originates on the prairies, passing initially through traditional territories of signatories to Treaty 6 and Treaty 8, as well as the Métis Nation of

Alberta. Crossing through the foothills and into the mountainous regions of what is known as the interior of British Columbia, the pipeline then dissects the unceded territories of multiple nations, including the Secwépemc (Secwepemc), nłeʔkepmx (Nlaka'pamux), and Stó:lō (Sto:lo), who, despite decades of colonization, remain connected to their lands over which they legally maintain sovereign decision-making authority. The pipeline terminates on the unceded territories of the xʷməθkʷəy̓əm (Musqueam), Sḵwx̱wú7mesh (Squamish), and səlilw̓ətaʔɬ (Tsleil-Waututh) peoples on the coast of the Salish Sea, nations who continue to work for the health of the waters affected by the intersections of oil transport, urbanization, and climate change.

Across these lands, the Trans Mountain pipeline expansion, purchased in 2018 by Canada's Prime Minister, Justin Trudeau, is now under construction by a Crown corporation: Trans Mountain Corporation. The pipeline expansion will nearly triple the existing transport of bitumen from Alberta's oil sands to the west coast, from 300,000 barrels a day to 890,000. The Canadian government purchased the pipeline in May 2018 for $4.5 billion, and Trudeau continues to support its development despite ongoing resistance from environmentalists, legal experts, Indigenous communities, and now doctors, who at the time of writing are linking heat-related deaths in BC to climate change resulting from excessive fossil fuel use and extraction supported by the pipeline ("Heat-Related Deaths, B.C. Wildfires Spur Greater Victoria Doctors' Call to End Pipeline Construction," 2021). Despite various legal challenges that have called the federal government to account for failures to address environmental impacts and to adequately consult with First Nations, pipeline construction is now underway and has persisted even against COVID-19-related restrictions (Spiegel, 2021b) and toxic forest fire smoke. Alberta's Premier, Jason Kenney, has continually declared support for the pipeline and has established a "war room" to counter what he calls lies spread by opponents of oil development, including over social media. Meanwhile, resistors celebrate periodic stalls as both protestors and tiny nesting hummingbirds take up residence in Burnaby area trees slotted to be felled for pipeline construction, as investment and insurance firms divest from the pipeline, and issues with workplace safety cause ongoing interruptions to construction.

Spanning local, provincial, federal, and Indigenous politics, the Trans Mountain pipeline issue stands at the intersection of climate and environmental issues and Indigenous sovereignty across regions with ranging positions on fossil fuel developments (Brunner & Axsen, 2020). It provides a complex site to explore participatory expressions of supportive and resistant publics

as they engage with the issue over social media. Supporters, including Alberta's provincial government, argue that the pipeline provides jobs for countless Albertans and Indigenous communities along the pipeline route. Citing Alberta's tar sands as "friendly oil," supporters assert the pipeline is necessary to Canada's economy via oil exports. These perspectives are embedded in a larger social controversy over use and transportation of unconventional fossil fuels (i.e. bitumen) structured by geography, where Albertans are more likely to perceive economic benefits rather than environmental and social costs than those across Canada, and in BC and Quebec particularly (Brunner & Axsen, 2020).

By contrast, opposition to the project centres on the pipeline's environmental hazards, from oil spills on land to harm of coastal populations of endangered orca whales, along with its contributions to climate change. Many also decry Canada's lack of consultation with Indigenous peoples as sovereign nations on land that has never been ceded to the Canadian government. Resistance has taken the form of everything from lawsuits to protests and demonstrations, as well as occupations along the pipeline route by the Tiny House Warriors through Secwepemc Territory and at Kwekwecnewtxw, the Coast Salish Watch House on Burnaby Mountain. As with other extractive controversies, particularly involving Indigenous peoples (Ceric, 2020; Crosby, 2021; Crosby & Monaghan, 2016; Morton, 2019), policing and surveillance have upheld state interests in the pipeline and criminalized land defense and Indigenous assertions of sovereignty (Mars, 2015; Spiegel, 2021a). The controversy has led to trade wars between the provinces of Alberta and British Columbia, as well as disagreements between and within various Indigenous nations who express divergent opinions of the pipeline. The issue has also found public expression online, as users share news articles and updates on Twitter, organize resistance on Facebook, and post images and videos on Instagram (Seeber, 2021).

The conflict runs deep, and the issue gets at the heart of Canada's nature as a settler colonial state, wherein settler centrality and superiority is naturalized through policy, law, ideology, and culture, at the expense of Indigenous peoples who continue to be displaced from the land, which is conceptualized as a "resource" to be used for economic gain. Capitalism is inherent to settler colonialism through processes of Indigenous dispossession and settler accumulation, having profoundly negative impacts on Indigenous peoples and the land, both ecologically and in relation to Indigenous culture and continuance. In this context, the Trans Mountain pipeline is part of a current collection of

> mounting controversies over land/water protection and protests, peaceful and violent, over resource extraction centred on Indigenous lands: Elsipogtog First Nation against natural gas fracking, a coalition of northern British Columbia First Nations against the Enbridge Northern Gateway pipelines, Athabasca-Chippeweyan First Nations against the Alberta Tar Sands, the Unist'ot'en activist group in the Peace Valley of British Columbia, and the jailing of the Chief and council of Kitchenuhmaykoosib Inninuwug (KI) in northern Ontario. These controversies are placing First Nation communities at the front lines of environmental battles to protect their territories, while pitting Indigenous peoples against governments (provincial and federal) and extractive corporations. (Korteweg & Root, 2016, p. 179)

In comparison with many other Indigenous land defense sites, the Trans Mountain issue is anomalous due to the urban setting of Burnaby Mountain, a primary site of Trans Mountain resistance that is easily accessible to the diverse urban population in the greater Vancouver area (Mars, 2015). Thus, while other sites of Indigenous land defense may be largely committed to land decolonization and Indigenous consent according to their proximity to predominantly Indigenous communities, Mars (2015) asserts that mainstream environmentalism and climate activism come to dominate opposition to the Trans Mountain pipeline at the expense of Indigenous interests. Despite issue alignment against the pipeline, it is also likely that competing agendas reinforce settler colonial violences, whether intentionally or inadvertently, as has been noted with other resistance movements such as Idle No More and Occupy (Barker, 2015; Grande, 2013; Paperson, 2014).

At the same time, resistance to the pipeline has indeed been ongoing and growing, and recent research indicates marked coalescence around decolonization and Indigenous sovereignty, though diversities persist. Spiegel (2021) asserts that "for many people arrested, the *central* concern is that the TMX project sits on stolen land and without consent from impacted Indigenous communities who actively oppose it" (Spiegel, 2021a, p. 4), connecting all other concerns about the climate, environment, and industry. While decolonization is the central concern, Spiegel attributes the growth of the anti-pipeline movement to the "deep *diversities* of concerns, relationships and positionalities (some people more 'anti-capitalist' than others, some more inclined to use *legal* and/or *moral* arguments than others, some more focused on greenhouse gases or gender violence associated with 'man-camps' built for pipeline construction,

and so forth)" (Spiegel, 2021a, p. 4). Similarly recognizing the diversity within anti-pipeline resistance, which they term "a movement of movements," Gobby and Gareau (2018) interviewed anti-pipeline activists and mapped

> four distinct but overlapping convergences of people, including (1) Indigenous communities defending their lands and waters and rights as part of the wider Indigenous resistance that has been going on since European contact, (2) environment/climate justice movements mobilising in solidarity with Indigenous people and espousing both environmental and social justice goals, (3) mainstream ENGOs espousing primarily environmental goals, and (4) communities and citizens along pipeline routes mobilising to protect local ecosystems and their private property. (Gobby & Gareau, 2018, p. 452)

Despite these differences, many activists were aligned in understanding Canada's economy to be "guided predominantly by the logics of capitalist accumulation and settler colonialism… based on the destruction of natural systems and the theft of Indigenous land and the violation of Indigenous rights" (Gobby & Gareau, 2018, p. 459). In no case did the resistors interviewed frame pipelines as the crux of the problem, but they instead focused on larger justice-oriented concerns regarding resource extraction, Indigenous rights, climate change, and inequality stemming from colonial and capitalist relations. While they opposed pipelines, therefore, activists' ultimate aims were not necessarily to stop pipelines but to work for anti-capitalism and decolonization, including ensuring the self-determination of Indigenous nations and repairing relations among humans and with the land (Gobby & Gareau, 2018, pp. 456–457).

While research with activists has therefore indicated a strong decolonial thread in anti-pipeline activism, public expression on social media is more diverse. As a popular platform, Instagram presents wide-ranging issue positions, geographical locations, and modes of expression that intersect with settler colonialism in resistant, adherent, and conflicting ways. Considering the ongoing contestations of the Trans Mountain pipeline on Instagram, even after construction has begun, it is crucial to examine how Instagram functions pedagogically around the pipeline issue, both reinforcing and contesting settler colonialism in overt and subtle ways. The concept of "public pedagogy" is helpful here, as it draws attention to the pedagogical processes functioning in the cultural realm, particularly how cultural expressions shape key discourses, agencies, and relations according to dominant formations such as settler colonialism. While much public pedagogy research upholds the hegemonic functioning of culture, feminist

public pedagogy research (Denith et al., 2013, p. 27; Luke, 1996; St. Pierre, 2000) and research in communication and media studies (Bernardi et al., 2015; Mortensen et al., 2018) recognize the participation of multiple and marginalized publics in the cultural realm, as they resist and appropriate – and also re-entrench – hegemonic cultural norms. Considering the participatory and decentralized nature of social media, along with the diversity of expressions around the Trans Mountain pipeline issue online, this research extends the concept of public pedagogy to explore the counterhegemonic possibilities of public pedagogy on Instagram, while also contributing new methods for anti-colonial digital research.

I therefore explore public pedagogy surrounding the Trans Mountain pipeline issue according to the visual, textual, and networked capabilities of Instagram. A quick search of #TransMountainPipeline on Instagram pulls up a multiplicity of images: land defenders, orca whales, memes of Justin Trudeau, selfies, pipeline infrastructures, Lower Mainland cityscapes, and demonstrations at various locations, such as in Vancouver city streets, at the Coast Salish Watch House on Burnaby Mountain, outside Ottawa's Parliament buildings, via aerial blockades from the Ironworkers' Memorial Bridge, and by "kayactivists" in Seattle, Washington. Some images are clearly shot in the moment and on location, while others are carefully crafted according to pro- or anti-pipeline campaign messaging, including extensive post-production filtering and framing. Associated hashtags range from #climatejustice to #oilsandsproud, #orcas to #decolonizecanada, connecting the pipeline to a diversity of issues. And all of this takes place within a platform that is widely known for selfies, food pics, and increasingly for ads that make users think their phones are listening to them. This #TransMountain search evidences how profound changes in technology have allowed for creative production, circulation, and dialogue regarding critical issues, potentially enabling alternative issue expressions to those found on mainstream media. Further, active alongside human users are auto-generated or "botted" accounts used for political purposes, algorithms, surveillance tactics, campaigns, and technical elements that intersect with the pipeline issue, as was made obvious when posts tagged #mmiw for missing and murdered Indigenous women were removed from Instagram, purportedly due to a technical glitch (French, 2021; Olson, 2021). Use of the platform holds tensions – whether recognized or unacknowledged – for pipeline resistors, not only due to these technical interventions, but also as both cell phone technology and the material infrastructures underlying social media data gathering and storage are profoundly impactful on the very lands, waterways,

and air, along with communities of human and more-than-human beings, that resistors seek to protect (Brevini & Murdock, 2017; Maxwell & Miller, 2012). As interactive cultural and material tools, therefore, social media platforms such as Instagram have contributed to new forms of participation, audiencing, and critique on extractive issues, enabling a particular expression of public pedagogy.

Instagram in Social and Political Life

The role of Instagram in public life is not to be underestimated; as of June 2021, Instagram engages more than 1 billion active users each month (*Instagram*, 2021). It outperforms the frequently researched platform, Twitter, and continues to grow faster than both Twitter and Facebook (Filimonov et al., 2016, p. 2). In Canada, the user base is expected to reach 14.3 million by 2023, up from 11 million in 2018 (*Instagram Users in Canada*, 2021). Despite its prominence, Instagram has yet to be explored for its public pedagogical possibilities, particularly within a settler colonial context.

Visual communication dominates Instagram, which supports image- and video-based expression through both a feed and Snapchat-style story formats, as well as long-form reels. Some content is ephemeral and difficult to research and trace (Bainotti et al., 2021), while other content remains relatively stable, though it can be edited or removed at any time. Media can be accompanied by text, emojis, stickers and animations, and networked to the media of other users through follower lists, hashtags, and GIS-based location tags. Media take a multiplicity of forms on Instagram such as photography, "artwork, memes, videos, collages, infographics, inspirational quotes and poetry presented through images" (Highfield & Leaver, 2016, p. 51), including remixed and reposted content, as well as content shared across other platforms. At a material level, media production is centred in mobile phone technology and is dominated by personal snapshots edited, filtered, and shared on the platform. Instagram functionality is limited on desktop computers in comparison with other popular platforms such as Twitter and Facebook; despite these limitations, users leverage a number of connected apps, as well as other disconnected production and design tools, to create images outside the bounds of the platform. At the same time, Instagram's embeddedness in mobile technology contributes to the dailiness, casualness, temporality, and locatedness of the platform in comparison with others (Zappavigna, 2016). As Instagram is materially embedded in everyday life, the "online and the offline, the digital and the embodied, are able to be hybridised in performative assemblages" (Gibbs et al.,

2015, p. 7) of special events, issues, and controversies. As a result, it provides a particularly material, personal, located, and creative space for public pedagogical expression around an issue like the Trans Mountain pipeline.

Image-wise, Instagram is well-known for its polished and positive form of visual communication, which is shaped by its affordances, terms of service, and "economy, in which users foster cultural capital through conspicuous consumption and self-branding" (Duguay, 2016, p. 2). Some scholars thus argue against the platform's potential for resistant expression. The large-scale study conducted by Manovich and colleagues (2017) on 15 million images from 58 cities in 31 countries focuses on Instagram's polished visual style, categorizing Instagram photography according to casual, professional, and designed photos. Their findings indicate that users apply visual styles to express identity, define membership in particular subcultures, and "filter the visible world and the flows of human lives to select the moments and occasions worth documenting" (Manovich, 2017, p. 17). At the same time, "the subjects and styles of photographs are strongly influenced by social, cultural, and aesthetic values of a given location or demographic" (Manovich, 2017, p. 2). Further, Instagram culture is accompanied by "a truly massive analytical discourse in the form of how-to articles, blog posts, and videos" (Manovich, 2017, p. 20) that provide best strategies for Instagram photography and thus shape expression. This study thus suggests that while users certainly possess stylistic choice, this choice is highly influenced by social and economic factors, as well as networks of followers and counts of "likes," so that even the most casual images largely adhere to Instagram's aesthetic norms.

Other scholarship identifies visual hegemony that limits resistant expression on Instagram. In a walkthrough study of selfie production and distribution on the app, Duguay notes Instagram's consumer orientation and emphasis on "passive viewership of celebrity and microcelebrity culture" (Duguay, 2016, p. 5). For Duguay, tools such as filters ensure images are appealing and positive, so that while "critical discourses may be present in Instagram photos…they may not enter conversation because aesthetically pleasing qualities overpower their salience" (Duguay, 2016, p. 5). As Kohn (2015) shows within the context of Instagram use by Israeli soldiers, filters may also function to produce banal images according to predetermined formulas, potentially serving propagandist ends, while the connotations evoked by social media use, such as "peer-to-peer sharing, civilian freedom, and membership in a social community conversant in cultural trends – help this site to appear 'cool' and weaken the sense of heavy-

handed propaganda by the army as large institution" (Kohn, 2017, p. 4). In this case, Instagram's stylistic visuality does not serve commercial purposes but subtly contributes to the discipline and propaganda of institutions such as the military.

At the same time, researchers are increasingly noting diversity in Instagram use, including for sharing subversive and resistant aesthetics and visual discourses (Caliandro & Graham, 2020; Leaver et al., 2020), as well as for appropriating the platform for individual purposes and agendas. In contrast with Duguay's (2016) study, which focuses on the platform's framing of what and how to post via terms of service and promotional language, Olszanowski (2014) traces how users resist Instagram terms of service, particularly its censorship of women's bodies. While the platform's policies legitimate the social order, having a "consequential role in the way that particular subaltern communities are built and maintained on Instagram" (Olszanowski, 2014, p. 85), users call out and evade the platform's disciplinary flagging and disabling of accounts via both their posts and their networks, thus working to "destabilize [the platform's] repressive power" (Olszanowski, 2014, p. 93). Read in relation to my interest in public pedagogy, Olszanowski's study indicates the agency of users as they work within repressive platform structures not only to teach other users through their imagery but also to "teach" the platform that they will not be subject to what they consider to be repressive platform structures. Similarly, Caldeira and colleagues (2020) trace the ways ordinary women use Instagram politically, broadening the scope of what is deemed photographable, expressing agency and self-worth, and celebrating marginalized identities. Reading Duguay, Olszanowski, and Caldeira together, it is clear that the platform is a fraught space with pedagogical potential to both reinforce and test the status quo, as public pedagogy is influenced by both platform and user agency.

It is reductive to assume that Instagram is solely used for depoliticized and promotional visual communication, and scholarship is increasingly recognizing the platform's intersection in political life (Leaver et al., 2020), including for "political information acquisition, self-expression, and engagement" (Lalancette & Raynauld, 2019). Instagram is used by political actors during election campaigns, where its visuality is particularly powerful in impacting public opinion and political motivation (Filimonov et al., 2016). Lalancette and Raynauld (2019) demonstrate, for instance, how Canadian Prime Minister Justin Trudeau, popularly known as the "selfie Prime Minister," carefully manipulates imagery, color schemes, tagging, and

communicative emojis such as national flags to "prop up" his political activities and build his public image through Instagram. Other politically-oriented studies focus on embedded journalism (Alper, 2014) and citizen journalism (Borges-Rey, 2015) to explore how Instagram shapes audience interpretation of events via image framing and filtering, along with hashtags, texts, and networks. Such studies question notions of "authenticity" that may pervade interpretation of citizen photography via Instagram. Together, the studies illuminate the need to conduct close reading of citizen photography in order to consider framing of events and locations, both within individual images themselves but also in reference to the network of relations around the image that contribute to an image's meaning. Thus, Borges-Rey (2015) recommends connecting images to

> indicators such as Iconosquare statistics (including number of followers, most liked photographs, number of likes per photograph, preferred Instagram filter), themes and topics treatment, photographers' biographies, software design and functionality, performative features of each modality, inferred context of the photograph, descriptors (if present), hashtags, etc. (Borges-Rey, 2015, p. 577)

While not directly focused on public pedagogy, these studies indicate not only that Instagram is indeed a space of political learning, but also that a complex assemblage of actors, affordances, issue agendas, imagery, and links to greater media landscapes all intersect in public pedagogical processes on the platform.

For the purposes of my study on public pedagogy around the Trans Mountain pipeline, it is key that Instagram supports location-based expression, not only via location tagging but also through the representational power of images and location hashtags, which enable exploration at the intersection of geography and social issues (Chen et al., 2019). The pipeline issue is geographical in nature, with national, provincial, and civic politics intersecting on particular lands and waters – from extractive sites to shipping yards, from urban centres to Indigenous communities. Due to its various locative elements, Instagram provides a particularly unique means of engaging land and location in public pedagogy online, particularly in relation to settler colonialism. On one hand, landscape photography is a means of claiming ownership of the land, particularly on social media where users demark land in particular ways, share it with others, and potentially commercialize it (Kohn, 2017). On the other hand, photography enables various means of storying the land within social networks. Gibbs and colleagues (2015) note, for

instance, how Instagram enables users to "record and situate [an] event for a remote audience, and situate the remote audience at the event" (Gibbs et al., 2015, p. 19), establishing a form of "intimate co-presence" via the portability of mobile phone technology. Recognizing Instagram's potential for representing locations, Chen and colleagues (2019) studied Instagram images of the proposed Site C dam on Treaty 8 territory in northern British Columbia to conduct a social impact assessment of the dam, drawing connections between landscape aesthetics and responses to the proposed dam. While Chen's study focuses primarily on Instagram's representative qualities, the platform also holds constructive potential with regards to place. Boy and Uitermark (2017) demonstrate how Instagram "representations reflect *and reinforce* processes of gentrification" (Boy & Uitermark, 2017, p. 613, italics added), through a recursive process whereby users "selectively and creatively reassemble the city as they mobilise specific places in the city as stages or props in their posts. Instagram images, in turn, become operative in changing the city" (Boy & Uitermark, 2017, p. 613). Specific platform affordances contribute to this process, whereby users do such things as tag particular locations but not others, and follow narrow aesthetic norms in ways that contribute to the socio-spatial divisions of the city. The connective, representational, and constructive roles of Instagram in relation to space and location counter notions of social media as placeless, a technology that is "out there." Rather, Instagram provides a particularly located platform for public pedagogy in comparison, having implications for expression around a geographically connected issue such as the Trans Mountain.

As these studies show, Instagram provides particular terms of service, affordances, functions, and cultures – and these combine with user adherence, creativity, resistance, and appropriation in practice. These assemblages are defined by Gibbs and colleagues (2015) as "platform vernaculars," which are "shared (but not static) conventions and grammars of communication, which emerge from the ongoing interactions between platforms and users" (Gibbs et al., 2015, p. 5). Studying a platform vernacular involves a focus not on "extraordinary or spectacular use" (Gibbs et al., 2015, p. 6) but on how mundane, "'*ordinary*,' and everyday forms of communication operate within the constraints and allowances of the platform architecture, but in turn creatively repurpose those allowances and limitations for particular modes of expression and interaction" (Gibbs et al., 2015, p. 6) – a process Burgess (2006) terms "vernacular creativity." The concept of platform vernacular "draws attention to how particular genres and stylistic conventions emerge *within* social networks and how – through the context

and process of reading – registers of meaning and affect are produced" (Gibbs et al., 2015, p. 6). Building on this research, I extend the concept of platform vernaculars, with a specific focus on how platform affordances and cultures are used pedagogically, rather than for sociality or individual expression.

Research Questions

Acknowledging the complex nature of networked media as both implicated in corporate and mainstream agendas yet also providing possibilities for public expression, the questions guiding my research study are:

1. Despite its implication with hegemonic and prescriptive forms of cultural production that are critiqued for foreclosing public thought and limiting citizenship expression, to what extent does the participatory and distributed nature of social media allow it to function as a participatory public pedagogical space? More specifically, how do platform dynamics – including hashtagging, text, imagery, and location data – shape participatory public pedagogy on Instagram?
2. What are the contours of ideas and related issues in the public pedagogy of Instagram around the Trans Mountain issue?
3. To what extent does public pedagogy on Instagram function hegemonically, reinforcing mainstream thought? More specifically, to what extent does public pedagogy on Instagram around the Trans Mountain pipeline issue reinforce or contest mainstream settler colonial discourses and processes?
4. How does this study inform an anti-colonial methodology for social media research?

Anti-Colonial Position as Researcher

Recognizing the violence inherent to settler colonialism in Canada, I take what I refer to as an "anti-colonial" stance in my research by critiquing settler colonial and capitalist processes – and pursuing alternatives – not only as they are expressed in the Trans Mountain issue, but also in relation to social media and digital research, including my methodology. As a settler inhabitant of a white supremacist, settler colonial society, in uneven and often exploitative relations with the people and lands I am writing about, I have a deep responsibility and obligation to centre those relations and to reveal, confront, and undermine settler colonialism in my research towards transformed and just relations. I choose the term "anti-colonial" over

"decolonial," as the second refers more explicitly to the return of land to Indigenous peoples (Tuck & Yang, 2012), though decolonization is the ultimate goal of this work.

(Anti)colonial Public Pedagogy on Instagram

To orient an anti-colonial analysis of Instagram's pipeline public pedagogy, I open with an introduction to the lands, peoples, and processes bound up in the Trans Mountain pipeline controversy in Chapter 2, addressing the colonial decision-making surrounding the project's development as part of Canada's resource-based nation-building narrative. Detailing the many entwined ecosystems, communities, histories, and policies shaping pipeline development, this chapter provides contextual information about the pipeline but also situates the pipeline issue in relation to settler colonialism more broadly, opening space to explore how resistant pipeline public pedagogy might work for the transformation of settler colonial relations.

Considering the ways that settler colonialism has shifted relations with the land, construing it as property and resource to be used for capital accumulation, I then address in Chapter 3 critiques of environmentalism that uphold these very processes, promoting instead an anti-colonial approach to the pipeline issue that directly confronts, undermines, and moves past settler colonial extractivism, including its racist and capitalist elements. Rather than perpetuating thinking about the land as a commodity even for conservation and protection, anti-colonial thinking breaks down dualism between humans and nature that shape decision-making to the detriment of land, peoples, climate, and all forms of life. As settler colonial relations are both reinforced and contested through media representations, Chapter 3 moves on to present public pedagogy as a helpful concept for analyzing the educative force of social media in the Trans Mountain pipeline issue, and in relation to settler colonialism more broadly. While much public pedagogy scholarship focuses on the hegemonic functioning of culture in what is presumed to be a unitary culture and singular public sphere, social media requires a new vision of public pedagogy grounded in alternative conceptualizations of publics. Chapter 3 therefore traces various conceptions of publics, including of multiple and marginalized publics (or "counterpublics") connected by discourse and affect, linked by digital networking tools like hashtags, and invisibly shaped by algorithms. Following feminist scholarship that recognizes the resistant cultural work of marginalized publics, therefore, I set out to trace the unique functioning of public pedagogy on Instagram among publics linking to the Trans Mountain issue.

While explicitly anti-colonial digital methods are yet only emergent (Duarte & Vigil-Hayes, 2021), issue mapping presents a powerful way to trace the participation of multiple publics in Instagram's Trans Mountain public pedagogy, as I outline in Chapter 4. Beginning with the broad, networked approach of critical digital methods and visual methodologies, it is possible to map the pipeline issue and trace en masse how publics use the technicities available on the platform – including hashtags, images, emojis, location indicators, and text – in relation to the Trans Mountain pipeline. After conducting large-scale analysis, close reading practices enable a more nuanced understanding of the precise pedagogies used and to what extent these reinforce or contest settler colonialism. In combining both distant and close analysis, my aim is to work against a positivist approach to digital research, accounting for power relations within the data – as well as between the data and myself as a researcher – towards a critical and anti-colonial research method, which I return to in Chapter 7.

My analysis begins in Chapter 5 with both a broad scan and a deep dive into what I term "issue public pedagogy" on Instagram. Drawing on the conception of "issue publics" (Bruns & Burgess, 2011, 2015), which captures how publics collect around crucial issue hashtags such as #stoptmx ("stop the Trans Mountain extension"), I apply various hashtag-oriented analyses to develop multiple countermaps that articulate a multifaceted understanding of issue public pedagogy in relation to temporal shifts, dominant issue discourses, patterns and heterogeneity among hashtag use, and the interactions between hashtags and other affordances such as imagery and emojis – all while exploring how this pedagogy addresses the Trans Mountain issue. Multiple layers of analysis reveal how issue public pedagogy is not only discursive but also aesthetic, connective, strategic, action-oriented, and situated in relation to geography and language. Here, public pedagogues are not positioned outside of culture within educational institutions but are indeed in the fray, co-constructed with algorithmic and afforded elements of the platform as they participate in the Trans Mountain controversy.

Next, Chapter 6 zooms across the locations tagged in relation to the Trans Mountain issue to explore both the scope and nature of location-tagging in Instagram's pipeline issue public pedagogy. Exploring the diversity of location tags linked to the Trans Mountain – from businesses to ports, governments to landmarks, First Nations reserves to urban centers – we get a sense of not only the geographic distribution of the issue but also the typologies of locations available on the platform, which reflect its colonial and corporate positioning. Then, a close

comparison of imagery, hashtags, and text from key locations provides a more nuanced analysis of how location-tagging functions pedagogically. Profiles of Burnaby Mountain and Blue River provide comparators for how pedagogies differentially perform settler colonialism through posts situated in urban and rural sites of front-line resistance. The two locations of British Columbia and Canada, by contrast, reveal pedagogical possibilities for tagging more abstract, political locations. Altogether, this chapter provides insight into the place-based and place-connected nature of much pipeline public pedagogy on Instagram.

Finally, in light of the analysis, Chapter 7 returns to the critical digital methods introduced in Chapter 4 in order to envision future possibilities for anti-colonial digital methods. Reflecting on the research protocol followed in this dissertation, the chapter explores ways settler scholars might undermine the colonial gaze in digital data and data visualizations through a situated and reciprocal process that puts the researcher into relations with the data – and the various human and more-than-human actors, bodies, lands, and knowledges it represents – rather than outside of it. Refusing data positivism, along with colonial uses of data gathering for surveillance, control, and capital accumulation, this chapter proposes means of archiving, analyzing, and visualizing social media data in support of anti-colonial resistance and Indigenous life, contributing new methods and considerations for anti-colonial digital research.

While the primary focus of this research is to provide an anti-colonial analysis of the public pedagogical role of Instagram in the Trans Mountain pipeline controversy, this dissertation also intervenes in mainstream environmental and climate activism by revealing the coloniality of decision-making surrounding land and resource development, as revealed by publics connected to the pipeline issue. Threaded throughout the chapters and reinforced in the conclusion is evidence for how the Trans Mountain issue is indeed more than merely "environmental," and to view it as such is to maintain a colonial understanding of the natural world as separate from human – and indeed all more-than-human – life. By attending to Trans Mountain public pedagogy, we can trace the residue of coloniality in mainstream environmentalism but also how anti-pipeline resistance can work to dismantle and reconfigure relations under settler colonialism towards sovereign decision-making for Indigenous nations and reciprocal relations with the land.

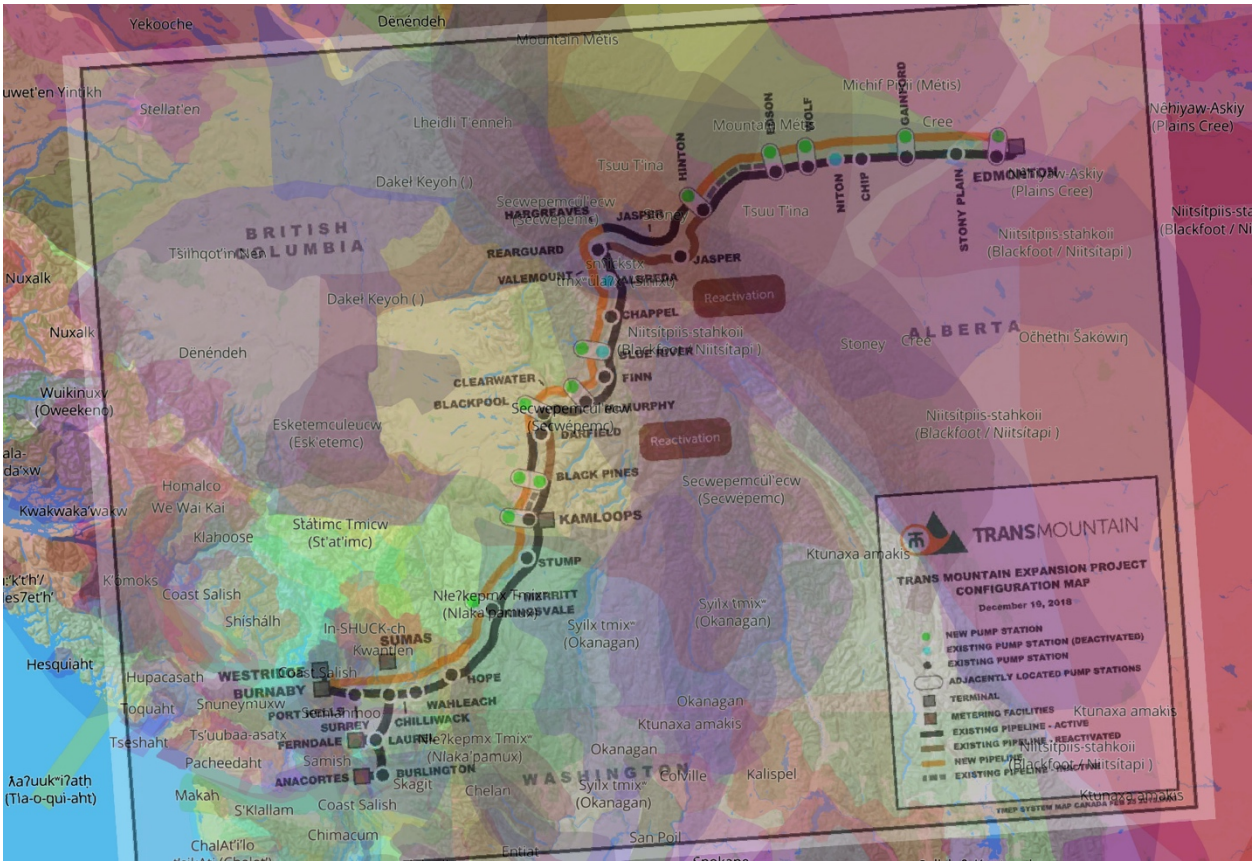
Chapter 2 –Resistance to the Trans Mountain Expansion: Background and Context

Originating in the Aspen parkland biome just outside of Amiskwaciwâskahikan (Edmonton), where the prairie meets the Boreal forest, the existing Trans Mountain pipeline winds through thick forests, crosses rivers and freshwater streams, and passes over mountains and through a rainforest, ending in the coastal ecosystem where the land meets the Salish Sea. Since "forever ago," as the Mountain Protectors illustrate above (Mountain Protectors, 2021),[1] these lands have long been recognized as a place of abundance, whether for sustaining human and non-human life prior to colonization or, more recently, for resource exploitation and transport via railways and pipelines. On its 1,147 kilometer route to its coastal terminus, the pipeline spans the territories of multiple and overlapping Indigenous nations (Image 2.1), including the Métis Nation of Alberta; the Dene Suliné, Cree, Nakota Sioux and Saulteaux signatories of Treaty 6; and the Sicannie (Sikanni), Slavey, Beaver (Dane-Zaa), Cree, and Saulteau of Treaty 8 territory. The pipeline also crosses the lands of multiple Indigenous nations who have signed no treaties, including the Secwépemc (Secwepemc), whose territory stretches across the central interior mountains and river systems; the nłeʔkepmx (Nlaka'pamux) in the southern interior; the Stó:lō (Sto:lo), whose land follows the river known as the Fraser; and the coastal nations of the xʷməθkʷəy̓əm (Musqueam), Sḵwx̱wú7mesh (Squamish), and səlilw̓ətaʔɬ (Tsleil-Waututh). These diverse Indigenous nations have longstanding relations with the land and

[1] This post from the Mountain Protectors is not from the Instagram scrape for this study, as detailed in Chapter 4 below, but from my personal Instagram timeline, which pulls from posts hashtagged #stoptmx.

maintain ongoing sovereignty; indeed, as Secwepemc land defenders articulate these relations: "our land is home" (*Tiny House Warriors – Our Land Is Home*, 2020).

Figure 2.1: Trans Mountain Pipeline Route[2]



Across these homelands of interconnected life, the pipeline is being installed according to colonial decision-making that disregards Indigenous sovereignty and instead supports state investments in what are defined as "critical infrastructures" within Canada's resource economy. Indeed, while the pipeline results in notable ecological impacts, pipeline politics – and their expressions over Instagram – are more nuanced and complex than environmentalism alone can explain. At material, representational, and ideological levels, the Trans Mountain intersects with colonial nation-building narratives that naturalize resource extraction and transport to the detriment of many entwined ecosystems, communities, and Indigenous nations. In detailing the

[2] This image is an overlay of the Trans Mountain pipeline extension map available on the Trans Mountain Corporation website (*Trans Mountain*, 2017a) with the Indigenous territories as mapped by Native Land (*NativeLand.Ca*, 2021), reflecting the conflicting and overlapping ways of demarcating, governing, and naming the land.

pipeline in relation to Canada's nature as a settler colonial state, therefore, this chapter not only provides meaningful contextual information about the pipeline and its resistance on Instagram but also situates the pipeline issue in relation to settler colonialism more broadly, laying the groundwork for examination of resistant pipeline public pedagogy towards transformation of settler colonial relations.

Pipeline Disruptions to Diverse Homelands

Across diverse biomes and Indigenous homelands, and further afield according to geographically and temporally distributed climate effects, pipeline construction and operation have both localized and far-reaching ecological and social impacts on diverse peoples and non-human lives. Since its initial installation in 1953, the pipeline has undergone a series of expansions, which will culminate in a nearly tripling of capacity to 890,000 barrels a day with the current twinning of the remainder of the line. A massive undertaking, construction requires the clearing of corridors 45 meters wide, where trees and brush are razed, and topsoil is removed to prepare pipeline trenches (*Trans Mountain*, 2017b). While holes are bored beneath larger rivers to thread pipe underground, streams are dammed and rerouted while pipe is laid (*Trans Mountain*, 2017c), inhibiting the crucial flows of salmon and other freshwater life. Areas under construction fill with the clamour of heavy machinery, and storage areas are set up for hundreds of kilometers of pipe awaiting installation. While such "disruption" of the land is intended to be only temporary – one to two months – seasonal changes, such as the freezing of soil over the winter, can mean that construction often lasts longer.

Of course, disruptions also persist after pipelines are laid and oil leaks and spills impact the surrounding lands and water systems. Since 1961, the pipeline has seen 85 spills (*Trans Mountain*, 2017d), with the most recent being a 150,000 litre spill affecting Sema:th First Nation and Stó:lō Coast Salish Peoples in the area commonly known as Abbotsford, BC (Lypka, 2020). Modelling shows that a major spill near the port could spread oil across səl̓ilw̓ət (the Burrard Inlet) at the coast in 96 hours, poisoning the water and beaches with carcinogens (Jonasson et al., 2019, p. 505; Spiegel et al., 2020); this inlet is the very body of water from which the Tsleil-Waututh ("People of the Inlet") derive their name and with which they maintain an ongoing sacred commitment. Bioaccumulation of toxins profoundly impacts local communities, including the Tsleil-Waututh Nation, whose traditional foods include salmon, herring, and shellfish collected from the intertidal zone, a place already impacted by historic and ongoing oil spills that

would only be augmented by the twinning of the Trans Mountain. Toxicity of the Inlet is compounded by the impacts of climate change, which is already resulting in algal growth and ocean acidification, reversing restoration work done by the Tsleil-Waututh Nation in the waterway (Jonasson et al., 2019, p. 509). Historic, current, and future loss of traditional foods impact the Tsleil-Waututh Nation's food sovereignty, economy, and cultural continuity, having impacts on their physical, mental, and spiritual health in an affront to food equity enabled by Canada's limited environmental impact assessment processes (Jonasson et al., 2019; Spiegel et al., 2020).

Environmental impacts are therefore accompanied by social impacts affiliated with pipeline construction. Back along the pipeline route in Secwepemc territory, for instance, social impacts include the violence brought on Indigenous women by pipeline workers housed in impermanent camps (Sweet, 2013; Whyte, 2017). Popped up temporarily for workers to open up the land and lay pipe in segments, these habitations are colloquially known as "man camps" due to the prevalence of male workers. Man camps subject rural, Indigenous communities to corporate and gendered colonial violence, often without repercussion for the transient workers. Despite widespread recognition of the violence of man camps, Indigenous leaders' demands for camps to close are repeatedly ignored (Morgan et al., 2021; Tordimah, 2021).

While the pipeline has direct impacts along its route, it also contributes to the ongoing output of Alberta's oil sands, which have been called the "most destructive project on Earth" (Willow, 2016), resulting in excessive greenhouse gas emissions, vast strip mines and tailings ponds that are visible from space, and pollutants transported down the Athabasca and Mackenzie Rivers through a number of remote localities and north towards the Arctic (Willow, 2016). Eriel Tchekwie Deranger, executive director of Indigenous Climate Action and member of Athabasca Chipewyan First Nation, located downstream from the Alberta tar sands, expresses that the tar sands have "ravaged, contaminated and broken the spirit" (K. McKenna, 2018) of the peoples of Alberta. Environmental impacts carry health problems for local communities through the transmission of toxic effluent through water, air, and locally-based animal and plant diets (Austen, 2007; Gosselin et al., 2010; "Oil Sands Pollution Linked to Higher Cancer Rates in Fort Chipewyan for First Time," n.d.; *Tar Sands Leave Legacy of Cancer and Polluted Water for Aboriginal Peoples*, 2013). While these and other forms of environmental degradation are being photographed, tracked, and shared by the public, including over social media, they are often

minimized or left out of public consideration and even covered up by non-factual government and industry messaging, supported by advertising laws that favor the elite (Spiegel et al., 2020, p. 14). Social media platforms such as Instagram, therefore, provide space for articulation of pipeline impacts that are left out of media messaging, according to the participation of various concerned publics. Considering the impacts of spills and other environmental and social impacts of pipeline construction, along with problematic decision-making processes surrounding the pipeline as detailed below, the Trans Mountain has been fraught with controversy since the expansion was proposed in 2013, involving provincial and federal politics, as well as Indigenous communities, and it has encountered ongoing in-person and online resistance by environmentalists and climate activists, Indigenous land defenders, and local residents of communities through which the pipeline is proposed to pass.

Pipeline Disruptions to Sovereign Decision-making

For communities and Indigenous nations along the pipeline route, choosing to support pipeline construction is no small matter. Choice, however, has been curtailed through the colonial decision-making surrounding the Trans Mountain, which is embedded within Canada's broader identity as a resource nation. Decision-making surrounding the pipeline therefore reflects the power of colonial authorities – provincial and federal governments, ministries, and legal bodies – and corporate partners, in keeping with priorities for national resource development. In this configuration, the land is commodified as a resource rather than considered a homeland interconnected with human life, and sovereign Indigenous nations are reduced to stakeholders through inadequate consultation and colonial decision-making processes that bypass Indigenous consent. In this colonial story, social media resistance, blockades, and legal actions by local communities and Indigenous nations are reduced to obstacles requiring mitigation and containment through both subtle policy moves and more forceful injunctions. Following a brief overview of this colonial timeline, therefore, it is crucial to examine the intersecting decision-making processes underlying it, which are taken up alongside pipeline impacts in Instagram's public pedagogy.

Timeline of colonial decisions in the pipeline project.

In 2013, energy company Kinder Morgan filed an application with the Canadian National Energy Board (NEB) to twin the Trans Mountain pipeline route through an additional 980 kilometers of new pipeline and the activation of 193 kilometers of existing pipeline. Proposed

expansions also included 12 new pump stations, 19 new tanks, and three new berths at the Westridge Marine Terminal in the city of Burnaby, in order to exponentially expand tanker capacity from five to 34 per month (Chan & Kohler, 2019, p. 22). After two-and-a-half years of review and consultation with Indigenous communities, the NEB approved the pipeline on May 29, 2016, and approval was shortly thereafter granted by the Government of Canada on November 29, 2016, under Prime Minister Justin Trudeau. While approval was subject to 157 binding conditions to mitigate impacts on Indigenous communities, along with other socio-economic and environmental impacts (Bakx, 2016), Tsleil-Waututh spokesperson Charlene Aleck asserted that via this approval, Trudeau had broken his promise of a "renewed, nation-to-nation relationship with Indigenous peoples" (Kane, 2016). Despite initially opposing the pipeline, Liberal BC Premier Christy Clark soon followed federal approval by announcing support for the Trans Mountain, asserting the project had met her previous conditions on issues regarding environmental review process, Indigenous and treaty rights, and spill response. Shortly after, the BC New Democrat Party (NDP) and Greens formed a coalition to topple the Liberal party, agreeing to "immediately employ every tool available" (*Timeline*, 2018) to stop the pipeline project. When the NDP took power under John Horgan after the Liberal party lost a no-confidence vote on June 29, 2017, the new government sought intervener status in *Tsleil-Waututh Nation v Canada (Attorney General)*, whereby the Tsleil-Waututh had used the colonial courts in attempts to halt the pipeline project, and asked the BC Court of Appeal whether it could legally restrict oil shipments within the province (Hunter et al., 2018).

Following federal approval and despite these challenges, on May 25, 2017, Kinder Morgan made its final investment decision to proceed with the development with an estimated cost of $7.4 billion. However, controversy surrounding the pipeline continued, including with moves by BC to restrict increases in bitumen shipments. The Coast Salish watch house, Kwekwecnewtxw, was completed in early 2018, bringing to life Elder Leonard George's vision for land and water protection through a consolidated site of resistance on Burnaby Mountain. As a result of ongoing contestation, Kinder Morgan Canada suspended non-essential spending on the project on April 8, 2018, setting a May 31 deadline to reach agreements with stakeholders. On May 29, 2018, the federal government under Trudeau announced the nationalization of the pipeline through a deal to purchase the pipeline for $4.5 billion plus remaining construction costs, with aims of eventually re-privatizing it (Rabson, 2018). According to Benton-Connell and

Cochrane (2020), this buyout can be understood as an attempt to address the financial uncertainty surrounding the Trans Mountain, involving tenuous and "contingent alignment among the current government, oil companies, pipeline companies, and the Canadian financial sector" (Benton-Connell & Cochrane, 2020, p. 345) within a complex financial system. The Trans Mountain had seen ongoing losses due to construction delays and blockades, as well as due to advocacy by Indigenous leaders such as Kanahus Manuel of the Tiny House Warriors and Cedar George-Parker of the Tsleil-Waututh Nation, who met with European bankers in 2017 in efforts to stop investment (Benton-Connell & Cochrane, 2020, p. 342). As Kinder Morgan faced rising costs and potential loss of financiers, Canada's purchase arguably made the project more financially stable, towards solidifying pipeline development.

The federal pipeline purchase did not end controversy, however, and the Federal Court of Appeal shortly released an August 30, 2018 decision on *Tsleil-Waututh Nation v Canada (Attorney General)* that overturned approval for the project. The Court found the NEB had failed to meaningfully consult with Indigenous peoples during consultation Phase III, and it had excluded project-related tanker traffic in the scope of its review. This decision returned the matter to the Governor in Council. After a further 155 days of reconsultation with Indigenous groups and reconsideration of oil tanker marine impact, the NEB recommended on February 22, 2019 that the project be approved. By July 2, 2020, the Supreme Court dismissed the previous appeal and ended potential for further legal challenges. Since that time, construction has been underway, though the pipeline continues to face blockades and social media resistance, divestment campaigns, and appeals to insurance companies to remove support.

Colonial decision-making and pipeline development.

While the Trans Mountain pipeline timeline reveals key issues and junctures in the pipeline's approval and development, it does not sufficiently capture underlying elements of colonial decision-making along the way that commodify the land and disproportionately impact Indigenous communities in ways that fuel resistance both in-person and over social media. While consultation with Indigenous peoples is an inherent aspect of pipeline approval according to Canada's Constitution and legal precedents, pipeline decision-making in practice overwrites Indigenous sovereignty both by its prioritization over Indigenous claims and by its process of working with colonially appointed Indigenous leaders rather than with Hereditary Chiefs and communities. Further, decision-making as a whole must be understood in relation to Canada's

colonial foundations, whereby the land is construed as resources for capital accumulation towards the development of the nation. The injustices inherent to colonial decision-making surrounding pipeline development are central to understanding pipeline resistance on Instagram, particularly as resistance engages both pipeline impacts and the colonial causes of these uneven impacts.

The land through which the pipeline passes is differentially understood by the Indigenous peoples living along its route and in relation to various legal definitions dictated by colonial policies. As articulated above, the pipeline passes through the lands of multiple Indigenous nations. Some of these lands are governed by Treaties, while others, referred to as "unceded," are without binding agreement between Indigenous nations and the nation-state of Canada. Through Treaties, certain Indigenous rights are protected on particular lands, and mutual ongoing relations are established between the state and Indigenous nations. Though the precise legal nature of Treaties continues to be contested, Indigenous peoples signed treaties to form a respectful, cooperative and bilateral relationship with newcomers to their lands, which they did not conceive as property (Asch, 2018). As these lands were not understood to be property and were thus not ceded to the state, the reference to un-treatied territories as "unceded" perhaps complicates understanding of these differential relations. As it happens, however, where treaties have not been signed, legal complications arise for the settler state in determining use of lands as detailed below, as Indigenous nations assert ongoing sovereignty through a variety of means. Regardless of whether Treaties have already been signed, the Government of Canada has a "duty to consult and, where appropriate, accommodate Aboriginal or Treaty Rights" (*How the Consultation Unfolded*, 2020), as stated in Section 35 of the Constitution Act of 1982. As Canada had endorsed (though had not yet fully adopted) the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) during the period of decision-making about the Trans Mountain, this constitutional "duty to consult" was further supported through UNDRIP's commitment to "free, prior, and informed consent" (*United Nations Declaration on the Rights of Indigenous Peoples*, 2007) by Indigenous peoples about projects on their lands.

While Indigenous scholars such as Coulthard (2014) would question from the outset the extent to which colonial recognition might serve Indigenous interests, the Government of Canada has explicitly acknowledged Indigenous rights not only through UNDRIP's recent adoption in Bill C-15 but also in relation to the Trans Mountain project specifically:

> No relationship is more important to Canada than the one with Indigenous peoples. We are committed to renewing relationships with Indigenous peoples, based on recognition of rights, respect, co-operation and partnership. On the TMX project, we took a whole-of-government approach to ensure Indigenous peoples were sufficiently consulted when actions were being considered that may have adversely impacted Aboriginal or Treaty Rights. (*How the Consultation Unfolded*, 2020)

As a crown corporation, Trans Mountain Canada was integrated into the consultation process, participating in meetings with Indigenous groups. As Trans Mountain articulates, Indigenous engagement involved a number of components, including building trust, addressing legal requirements, gathering Indigenous perspectives, assessing project impacts, reaching understanding, and providing benefits to Indigenous communities (*Trans Mountain*, 2017e). Trans Mountain to date has signed benefit agreements with 59 Indigenous groups, representing more than $500 million in benefits (*Trans Mountain*, 2020). Other benefits to Indigenous communities include jobs, construction contracts, education and training, and participation in environmental and social monitoring (Jaremko, 2021).

Indigenous individuals and communities along the pipeline route, however, are not unanimous in their support of the consultation processes and benefits put forward by the Government of Canada and Trans Mountain corporation, and many have worked within the colonial legal system (as well as without) to assert Indigenous sovereignty. In short, few treaties have been signed between the Canadian government and Indigenous peoples along the pipeline route, and there is ongoing contestation over jurisdiction that impacts land use and decision-making. In the 1973 landmark Calder case (*Calder et al. v. Attorney-General of British Columbia*, 1973), the Supreme Court of Canada recognized for the first time that Aboriginal title existed prior to colonization, profoundly transforming the ability of Indigenous peoples to negotiate modern treaties and lay claim to land in BC. A subsequent Supreme Court case known as the Delgamuukw case (*Delgamuukw v. British Columbia*, 1997), further established that Indigenous peoples had an existing and exclusive right to land that could not be extinguished by the state, and it reinforced the government's duty to consult with Indigenous peoples. While these decisions had multiple implications for Indigenous-state relations in BC, I will focus here on three that are specific to Trans Mountain opposition and have direct bearing on the analysis herein.

First, the Trans Mountain consultation process itself did not evidence nation-to-nation discussion. Rather, a low level of authority was granted to Indigenous communities in favor of the Crown (Cooey-Hurtado et al., 2019). In analyzing letters, reports, and transcripts of Trans Mountain hearings on the National Energy Board (NEB) website, Cooey-Hurtado and colleagues (2019) found that not only did the Crown hold decision-making authority throughout the consultation process, but the government and Kinder Morgan shared a similar rhetoric of "economic benefits" and "market diversification" that overwrote cultural and ecological considerations raised by Indigenous communities and grounded in Indigenous knowledge systems. In Trans Mountain consultation meetings and publications, economic benefits were shared in accessible language and imagery, while potential shortcomings and issues were articulated in overly technical language that was difficult for the Indigenous communities being consulted – as well as the greater public – to interpret. Furthermore, Indigenous traditional ecological knowledge was marginalized in the face of the state's institutional and technical knowledge, which was leveraged in order to ensure pipeline approval. This analysis points to the unconstitutional and unjust nature of consultation processes that multiply sideline Indigenous decision-makers, which followed neither Canada's "duty to consult" nor UNDRIP's call for "free, prior, and informed consent." A sign of ongoing settler colonial relations, superficial consultation processes are critiqued by in-person and digital Trans Mountain resistance, which call for transformed decision-making based on Indigenous sovereignty by invoking both UNDRIP and Canada's stated commitments to relations of parity with Indigenous nations.

Consultation was further undermined by the claims-making processes instigated following the Delgammukw case, which bumped up against decision-making surrounding the pipeline (*The Trans Mountain Pipeline and Specific Claims*, 2020), instigating further resistance. Canada's specific claims process (*The Specific Claims Policy and Process Guide*, 2009) is intended to redress historical grievances and lasting harm pertaining to the state's oppressive treatment of Indigenous peoples and poor management of reserve lands. While the Canadian government signed few treaties in BC, the state forced First Nations to live on small, poor quality reserves, which were often subject to oppressive oversight and further reductions to land to the point where today, Reserves cover less than 0.4% of BC's land base (*The Right to Redress and the Need for an Independent Specific Claims Process*, 2017). First Nations can submit claims to the Government of Canada to redress these losses, and arbitration can lead to compensation that

provides income to First Nations and contributes to healing for past injustices (*The Trans Mountain Pipeline and Specific Claims*, 2020). Many communities along the pipeline route have specific claims pending that directly pertain to its construction, such as the Sumas First Nation's claim calling for a reroute of the pipeline to avoid a sacred site (*The Trans Mountain Pipeline and Specific Claims*, 2020). However, due to ongoing delays in the specific claims process, and further delays during the COVID-19 crisis, many claims along the Trans Mountain pipeline route remain unresolved. Despite these pending claims, government decisions have moved pipeline construction forward, bypassing and disregarding the pending claims. Legally representing and supporting communities with current specific claims, West Coast Environmental Law asserts that, should the pipeline be prioritized and

> built before these claims are resolved, it will represent a significant setback to the legitimacy of the specific claims process and, by extension, reconciliation in Canada. Prioritizing a linear, supposedly "nation-building" infrastructure project over Indigenous rights (including land rights) looks a lot like history repeating. In this regard, the TMX pipeline is just like the railroads, highways and transmission lines of the past that gave rise to the specific claims process to begin with, running roughshod over Indigenous rights in the name of "progress" and public interest. (*The Trans Mountain Pipeline and Specific Claims*, 2020)

In this way, prioritized pipeline construction may be understood as an extension of the colonial project, even when it benefits some Indigenous communities. While some specific claims may be directly taken up on Instagram, the subtle curtailment of Indigenous sovereignty through colonial decision-making processes and structures surrounding the Trans Mountain is a central issue for anti-pipeline resistance.

A third issue relates to which Indigenous leaders speak on behalf of communities in the consultation process, where the marginalization of some Indigenous community members has led to both blockades and social media resistance that question colonial decision-making hierarchies and structures. As stated above, the Trans Mountain has signed benefit agreements with multiple Indigenous groups along the pipeline route. However, these agreements were signed with Indian band chiefs: leaders put in place by the Canadian state to govern reserves. While these chiefs in many cases are understood to be the leaders of Indigenous communities, they also problematically "[represent] two masters who are in direct conflict with one another" (A. Manuel

& Derrickson, 2017, p. 119) as they are paid by and directly accountable to the Canadian government and may therefore support Canadian policy decisions, despite community commitments. Further, they have jurisdiction only over reserves as defined by the Indian Act and not the full traditional and unceded territories of Indigenous nations. Due to these issues, Secwepemc legal activist Arthur Manuel recognizes that while the Trans Mountain has signed deals with the Simpcw, Whispering Pines, and Kamloops Indian band chiefs, these leaders (and bands) do not represent the full Secwepemc Nation (see also Newman, 2018, p. 13) and its territory, who he asserts must not "surrender our own inherent governing powers and undermine our rights as title holders of our national territories" (A. Manuel & Derrickson, 2017, p. 120), which cover a vast area of land in the interior of BC. Canadian legal precedent indeed supports Manuel's assertion, as the Delgamuukw case recognized the decision-making authority of Hereditary Chiefs. In this context, Trans Mountain blockades in Secwepemc territory, along with Instagram expression documenting the blockades, do not solely draw attention to the ongoing degradation of the land but are also a confrontation between legal orders, as Indigenous nations such as the Secwepemc demand recognition for their rights (Crosby, 2021; A. Manuel & Derrickson, 2017, p. 127).

The coloniality of decision-making is supported by the state police and legal systems, which are also taken up in pipeline resistance. A primary tool of the state to support resource infrastructures is the injunction, used by the courts to protect industry projects, even during halts on construction (Spiegel, 2021a, p. 4). Problematically, injunctions have been disproportionately wielded by corporations and the state against Indigenous groups; in fact, a 2019 study released by the Yellowhead Institute shows the systemic bias of injunctions, whereby "corporations succeeded in 76 per cent of injunctions filed against First Nations, while First Nations were denied in 81 per cent of injunctions against corporations" (Pasternak & King, 2019; qtd. in Spiegel, 2021, p. 3). The enforcement of injunctions is similarly unjust, as both the Royal Canadian Mounted Police (RCMP) and courts are characterized by systemic discrimination towards Indigenous peoples. As an example, the RCMP Project SITKA has been exposed to be "tracking Indigenous activists 'who pose a threat to the maintenance of peace and order'" (A. Manuel & Derrickson, 2017, p. 226), including specifically around natural resource development and pipelines. Courtroom ethnography has similarly revealed that "taxpayer money has been used to fund secret police infiltration campaigns among peaceful activists, which police spoke

about proudly while on the witness stand in the TMX hearings" (Spiegel, 2021a, p. 2). While many non-Indigenous peoples have been arrested while resisting Trans Mountain pipeline construction, it is clear that Indigenous land defenders have been "treated more violently, physically, and subjected to derogatory statements from RCMP officers" (Spiegel, 2021a, p. 7) – violence that may be documented on Instagram, in keeping with social media's use for tracking violent policy activity (Bonilla & Rosa, 2015). However, Indigenous mistreatment has been dismissed in courts as irrelevant, which is unsurprising considering these very courts are problematically characterized by narratives that center harm to industry – rather than harm to Indigenous peoples, lands, and futures. This use of legal systems to enforce colonial decision-making that removes Indigenous peoples from the land reveals the catch-22 of Indigenous people's moves to gain sovereignty via legal consultations, claims and governance processes: the very tool being used to support Indigenous sovereignty is being used as a colonial weapon to undermine it.

The uneven and problematic relations between settler governments and Indigenous communities along the pipeline route, and the consistent misuse of legal infrastructure by settler governments against Indigenous communities, provides the context within which opposition to the Trans Mountain pipeline takes shape in both physical and mediated forms, and it continues to be a reference point for social media critique as pipeline construction continues. While anti-pipeline resistance is indeed centered on the environmental and social impacts of the pipeline on surrounding lands and communities of human and more-than-human beings, it also engages settler relations and decision-making through documentation of colonial violations, invocation of the state's decolonial commitments to Indigenous nations, and reiteration of Indigenous sovereignty, calling for alternative relations even as the pipeline is halted.

Pipelines and Canadian Identity

The coloniality of decision-making around the Trans Mountain is unsurprising considering how pipelines are inherent to Canada's national identity, carrying representational and material significance in unifying the nation both ideologically and physically. Indeed, both pro- and anti-pipeline expression over social media interact with Canada's identity as a "pipeline nation" (Barney, 2017). In keeping with earlier nation-building discourse surrounding the railway (Benton-Connell & Cochrane, 2020, p. 335; Crosby, 2021; Preston, 2017), pipeline-related discourse maintains a "myth of peaceful Canadian settlement" (Crosby, 2021, p. 8)

through development and celebrates Canada's progress as a modern industrial nation. At the same time, pipelines – like railways – create material links across vast geographic spaces and safeguard national autonomy from the United States by ensuring resources can get to market without crossing the border (Newman, 2018). Pipeline discourses therefore carry colonial frontier undertones, where "engineering and financial difficulties appear in the industry histories as problems to be solved by determined technicians, domineering statesmen, and gutsy engineers" (Benton-Connell & Cochrane, 2020), on lands depicted as wild spaces absent of human life, waiting to be tamed and exploited. In this vein, Benton-Connell and Cochrane (2020) note celebration of a colonial vision "in Trans Mountain's official history, [where] the author gleefully notes an early expedition into the territory where the pipeline would eventually be built, featuring 'the first white girl born in the interior wilds of British Columbia' (Wilson & Taylor, 1954, p. 19)" (Benton-Connell & Cochrane, 2020, p. 335). Such celebratory tales disregard the dispossession and displacement of Indigenous peoples through the reifying logics of settler colonialism. The white supremacy inherent to pipeline nationalism is shrouded in an economically-based moral imperative that homogenizes the benefits of resource infrastructures for "all Canadians," despite the actual benefits of a relatively small capitalist – and largely white settler – class, to the detriment of those negatively impacted by pipeline construction and spills (Barney, 2017).

The conception of a unitary nation is further reinforced through pipeline discourses that "evoke a sense of emergency for Canada's sovereign statehood, positioning proposed pipelines as matters of national interest and security" (Dafnos, 2020, p. 118) within a competitive global market. In this context, any opposition to pipelines may be construed as irrational and criminal, threatening public safety and the interests of the nation, and justifying both public and private surveillance under the guise of risk mitigation (Crosby, 2021; Dafnos, 2020). This framing positions pipelines as "critical infrastructures" within an "extractive energy future [that] is imperative and inevitable; this imbues proposed projects with 'criticality' because of their anticipated contribution to this national vision" (Dafnos, 2020, p. 123). To oppose pipelines, therefore, is to be "un-Canadian" and subject to surveillance, social media monitoring, campaigning, and pre-emptive strategies such as land claim and treaty rights negotiations or economic benefits agreements. Considering the significant Indigenous resistance to settler colonial theft of land for pipeline projects such as the Trans Mountain, the definition and

protection of "critical infrastructure should be understood as a racialized technology of settler insecurity, governance, and policing practices that targets Indigenous peoples as national security threats" (Crosby, 2021, p. 3).

Maintenance of Canadian exceptionalism in the face of the state's contradictory behavior has been shown to rely on a number of discursive moves that subtly shroud the true nature of the project. Trans Mountain construction not only contradicts Canada's public commitments to Indigenous sovereignty, as described above, but also to climate targets that would position Canada as a climate leader globally (Gobby & Gareau, 2018). At the opening of the 2015 Paris Climate Conference, Prime Minister Justin Trudeau "proclaimed that 'Canada is back' and 'will take on a new leadership role internationally'" (Kraushaar-Friesen & Busch, 2020, p. 3), replacing the nation's previous image of a "petroleum superpower" with that of a "good global ecological citizen" (Kraushaar-Friesen & Busch, 2020, p. 3). The day before reapproving the Trans Mountain in June 2019, Trudeau declared a climate emergency in parliament, reinforcing the earlier commitment. While the point is debated, many agree that the pipeline is incompatible with Canada's climate goals, largely due to the significant fossil fuel use necessary to extract and refine bitumen, which would require a "disproportionate contraction in all other economic sectors, as [the oil] sector's emissions would come to account for 53% of Canada's total emissions by 2030" (Kraushaar-Friesen & Busch, 2020, p. 4). Analyzing seven speeches given by Trudeau and Finance Minister Bill Morneau, Kraushaar-Friesen and Busch (2020) reveal how pro-extractive discourse naturalizes bitumen and ties the Trans Mountain to the fate of the nation through religious metaphors that depict the land (and bitumen) as god-given, with an imperative to be developed for the economic good and security of the Canadian people and land. Through such metaphors, the Trans Mountain becomes depoliticized, its physical infrastructure invisible, and its resistors homogenized within a unitary Canadian public presumed to benefit from the pipeline. Here, climate impacts and the costs incurred by Indigenous and other local communities are subsumed within discourses that synecdochally extend the economic security and wellbeing of oil workers to the entire nation. Climate impacts are displaced to the distant future, by which time Canadian innovation will be fit and ready to address the crisis. In the meantime, technical and understated language that depicts the Trans Mountain as "just" a "twinning" of the pre-existing pipeline (Spiegel, 2021a, p. 5) erases the colonial theft of land

required for both the historical and current projects and minimizes new environmental destruction and future climate impacts.

Settler colonialism is indeed inherent to the history, development, decision-making, and impacts of the Trans Mountain pipeline – along with much of its resistance over time. As a result, it is insufficient to study the pipeline through a merely environmental framework, or simply in relation to inter-provincial and federal politics. Rather, a settler colonial lens helps to reveal the ways that various aspects of the issue such as land, resources, nationhood, and decision-making interact with settler colonialism through pipeline public pedagogy on Instagram.

Chapter 3 – Public Pedagogy in a Settler Colonial Context: Review of Literature and Theoretical Perspectives

The pipeline controversy gets at the heart of Canada's construction as a settler colonial state – a formation performed and reinforced not only through policy, but also through public discourse. In order to naturalize the settler state, the unifying discourse of Canadian society is ideological:

> it depends on an arbitrary social closure (through language, idiolect, genre, medium, and address) to contain its potentially infinite extension; it depends on institutionalized forms of power to realize the agency attributed to the public; and it depends on a hierarchy of faculties that allows some activities to count as public or general, while others are thought to be merely personal, private, or particular. (Warner, 2002, p. 84)

However, despite ongoing ideological and material violences, expressions of resistance and Indigenous resurgence (Corntassel, 2012; L. R. Simpson, 2004) result in settler colonialism as an incomplete and often contradictory project. Social media more generally – and Instagram specifically – are sites of contestation to settler colonial power relations, through public pedagogy around discrete issues. It is both the reinforcement and contestation of settler colonialism that I trace by examining the public pedagogy of the Trans Mountain pipeline issue on Instagram.

In order to address the colonial elements of public pedagogical issue expression on social media, therefore, my research finds conceptual foundations in (1) settler colonialism and Indigenous decolonial and resurgent land-based scholarship, (2) public pedagogy, and (3) networked media as a site of counterhegemonic public pedagogies. In critique of mainstream environmentalist approaches to extractive issues such as the Trans Mountain pipeline controversy, the first part of this chapter explicates settler colonial theory, particularly as it pertains to environmental justice, capitalism, extraction, and climate issues, along with how media is inherent to colonial violences and is thus also taken up in resistance. The aim is to demonstrate how these issues are in fact constituent of settler colonialism and therefore require an analytic framework that explicitly interrogates settler colonial interests in order to address them. While I rely on Indigenous scholarship throughout this initial section, I also recognize that much settler colonial theory is dominated by settler scholars, and thus reflects a self-reflexive

critique that is necessary but partial. As a result, I also draw upon Indigenous decolonial and resurgent approaches to the land, as well as Indigenous expressions of land-based education.

The second part of this chapter provides a literature review of public pedagogy research, attending to flows of power and agency in networked media particularly. Social media presents a particularly fitting place to explore the performance of settler colonialism, as it allows the participation of marginalized publics engaging with normative settler colonial constructs via public pedagogy around the pipeline issue. Power is more distributed among users and networks online than through mainstream media, refusing a hegemonic and prescriptive understanding of dominant settler culture. However, unlike unidirectional and mass forms of media expression, social media presents a number of unique challenges for considering the functioning of public pedagogy. My literature review thus draws upon digital research, including media and communications research, in order to underscore the complexity of how platforms, publics, and issues interact in an online space such as Instagram, even as they take up a discrete issue like the Trans Mountain. A nuanced understanding of these intersections is necessary to a study of the functioning of public pedagogy online.

Settler Colonialism and Indigenous Decolonial and Resurgent Land-Based Scholarship

As a site of contestation to settler colonialism through public engagement with a discrete issue, Instagram's public pedagogy surrounding the Trans Mountain pipeline warrants analysis in accordance with a nuanced understanding of how settler colonialism configures relations among human beings and with the land. While environmentalist frameworks may provide some insight into Instagram's pipeline public pedagogy, they are insufficient to unpacking the colonial relations naturalized within mainstream Canadian society. In order to attend to the nuanced ways in which Instagram's public pedagogy reflects, resists, and bypasses settler colonial relations, it is crucial to first unpack how ecological domination is inherent to settler colonialism, where white supremacy, capitalism, and colonial media representations intersect to affect Indigenous dispossession and exploitative treatment of the land.

Mainstream environmentalism under settler colonialism in Canada exhibits care for more-than-human life, efforts to protect ecosystems and mitigate climate change, and actions to conserve natural and biodiverse landscapes. At the same time, mainstream environmentalism has been critiqued for its gendered, racial, and colonial components, as well as for its connections to nation building, making it inadequate to the task of fully examining the pipeline issue in relation

to Indigenous peoples in Canada or settler colonialism more broadly. In order to attend to the nuances of pipeline public pedagogy on Instagram in relation to settler colonialism, and to myself avoid reproducing colonial violences in my interpretation of the issue, therefore, I ground my research in a theoretical framework that accounts for various critiques of mainstream environmentalism and extends this critique in relation to Canada as a settler colonial and capitalist state. Indigenous scholarship provides decolonial approaches to extraction, the environment, climate change, and environmental education that conceptualize "land" as the grounds for Indigenous knowledge and identity in ways that express Indigenous resilience, challenge settler-colonial structures, and provide foundations for Indigenous-settler relations. As a settler scholar myself, I respectfully engage with Indigenous theorizing and self-representation according to these theories and in my Instagram analysis, acknowledging how "we are all differently situated and governed, in both constraining and enabling ways, in relationships of division, patriarchy, imperialism, racism, capitalism, ecological devastation, and poverty" (Asch, Borrows, & Tully, 2018, p. 7) – interdependent and unevenly entangled within colonial systems. Considering the prevalence of mainstream environmentalism particularly among settler folks like myself, I seek to actively engage with Indigenous perspectives of the land in an anti-colonial effort to speak back to mainstream environmental thought.

Critiques of environmentalism.

> *I have to say that the Indian attitude toward the natural world is different from environmentalists. I have had the awful feeling that when we are finished dealing with the courts and our land claims, we will then have to battle the environmentalists and they will not understand why. I feel quite sick at this prospect because the environmentalists want these beautiful places kept in a state of perfection: to not touch it, rather to keep it pure. So that we can leave our jobs and for two weeks we can venture into the wilderness and enjoy this ship in a bottle. In a way this is like denying that life is happening constantly in these wild places, that change is always occurring. Human life must be there too. Humans have requirements and they are going to have to use some of the life in these places.* (Marie Wilson, a Gitksan-Wet'sumet'en tribal councillor, cited in Smith, 2005, pp. 63-64; qtd. in Kapyrka & Dockstator, 2012, p. 102)

Colonial decision-making, narratives evoking Canada as a "pipeline nation" (Barney, 2017), and relations configured under settler colonialism profoundly intersect in extractive issues like the Trans Mountain, as articulated in Chapter 2. Mainstream environmentalism therefore provides an insufficient framework for addressing Trans Mountain public pedagogy on Instagram, as environmentalism is grounded in a depoliticized understanding of "environment" that obscures its construction in relation to Canada's nation-building process and ongoing national narrative, whether as wilderness, resource base, or iconic landscape (Braun, 2002; Cronon, 1996; Gómez-Pompa & Kaus, 1992; Willems–Braun, 1997). Various Indigenous and non-Indigenous critiques of mainstream environmental thought deconstruct habituated forms of thinking about the "environment" in relation to Canadian identity, including romantic ideologies that characterize environmentalism through a nature/culture divide, wherein human actors dominate and manage nature through means as diverse as conquer and conservation (Cronon, 1996; DeLuca & Demo, 2001; Gómez-Pompa & Kaus, 1992). As a white settler construct, wilderness thinking "equate[s] wilderness with whiteness" (Gilio-Whitaker, 2019, p. 100), representing wild landscape as pristine, unpeopled, untouched, and unspoiled in an ideal of a "colonized Eden" that systematically excludes Indigenous peoples, as well as immigrants and people of color. Here, western thinking foregrounds "anthropocentric forms of being in which all other forms of life are relegated to the backdrops of human existence or as resource" (Bang et al., 2014, p. 44), which can be used and protected, rather than being treated within reciprocal relations of care and respect. Due to the separation between nature and human life,

> environmentalists have found it easier to advocate protection of "natural" environments and warm furry animals than to prioritise protection of the rights of indigenous peoples whose stewardship of habitats and use of many warm furry animals is harder to encapsulate as a bumper sticker. Environmentalists have often opposed indigenous use and occupation of (even access to) lands they classify as having high conservation values. (Howitt, 2001, p. 26; see also Korteweg & Root, 2016, p. 182)

The uneven positioning of human actors within mainstream environmental thought has been explored in relation to race (DeLuca & Demo, 2001; McCreary & Milligan, 2018) and class (Gómez-Pompa & Kaus, 1992), as well as within the field of environmental justice, which has taken an overtly politicized stance towards the environment (Bullard, 1990; Bullard & Wright, 1990; Čapek, 1993; Gilio-Whitaker, 2019; Ilyniak, 2014). Problematically, even when focused

on such issues of justice, environmentalism and environmental education offers narrow frameworks that focus on disproportionate *pain* and toxicity experienced by marginalized communities, *rescue* of such communities through green consumption and technologies supported by the sovereign settler state, and *inclusion* of these marginalized communities within mainstream, liberal multicultural society (Paperson, 2014).

Some critiques of environmentalism as described above address the racialized and classed treatment of Indigenous peoples within environmentalist discourse both historically and currently; however, many of them fall short of exposing environmentalism's deeply colonial components, including the commodification of land in ways that overwrite Indigenous sovereignty and appropriate Indigenous knowledge (Gilio-Whitaker, 2019; Ilyniak, 2014; McCreary & Milligan, 2018). In following Tuck and Yang (2012) that social justice cannot be equated with decolonization, Paperson (2014) asserts the need for environmentalism that directly addresses settler colonialism – and is not solely engaged with anti-racism or feminism, though these may be intersectionally addressed in relation to colonialism. Without an anti-colonial analysis, environmentalism – even within the environmental justice movement – may inadvertently perpetuate settler colonialism. As Klein points out in interviewing Leanne Simpson, even when environmentalists recognize the political work required to address colonialism, racism, and inequality, they have a history of "using urgency to belittle issues besides human survival" (L. B. Simpson & Klein, 2017). To address the nuances of anti-pipeline environmentalism in public pedagogy, therefore, it is necessary to more deeply understand the ways that settler colonialism shapes relations among Indigenous and settler peoples, as well as relations with the land.

Settler colonialism, white supremacy, and the environment.

I thus ground my analysis of Instagram's public pedagogy in an understanding of Canada as a settler colonial state, wherein environmental injustice is inherent to colonial processes. However, so as not to reinscribe settler power as the fundamental reference point, I also foreground various Indigenous perspectives of the land, particularly as they inform public pedagogy surrounding this environmental and extractive issue, following various Indigenous scholars (Alfred & Corntassel, 2005; Gilio-Whitaker, 2019; Kauanui, 2016; Preston, 2017; Whyte, 2018) who recognize the value of settler colonial theory yet emphasize how "to exclusively focus on the settler colonial without any meaningful engagement with the

indigenous…can (re)produce another form of 'elimination of the native'" (Kauanui, 2016, p. 3). Considering the impact of extractive industries in general, and the Trans Mountain pipeline in particular, I follow Gilio-Whitaker's (2019) approach to "Indigenized" environmental justice in adopting a "different lens, one with a scope that can accommodate the full weight of the history of settler colonialism, on one hand, and embrace differences in ways Indigenous peoples view land and nature, on the other" (Gilio-Whitaker, 2019, p. 12). In doing so, I hope as a settler scholar to participate in decolonial transformation by breaking down dualisms between humans and nature that shape decision-making about the land, working towards epistemic justice, and finding ways to attend and respond to assertions of Indigenous sovereignty outside of the colonial politics of recognition (see Temper, 2019, p. 22).

Literature on settler colonialism is expansive, but I am particularly interested in how environmental devastation and injustice is inherent to settler colonialism as "colonial ecological violence" (Bacon, 2019, p. 59). At the core, settler colonialism is a "form of colonization in which outsiders come to land inhabited by Indigenous peoples and claim it as their own new home" (Tuck et al., 2014, p. 6). It is defined by a "logic of elimination" (Wolfe, 2006, p. 388) and motivated by "access to territory. Territoriality is settler colonialism's specific, irreducible element" (Wolfe, 2006, p. 388). Within settler colonial societies, settler centrality and superiority is naturalized through policy, law, ideology, and culture, at the expense of Indigenous peoples who continue to be displaced from the land. Through a blend of "cultivation (programs, policies, and discourses promoting settler expansion) and discipline (organizations which generate and enforce prohibitions on land access and use)" (Bacon, 2019, p. 63), settler colonialism benefits settlers to the detriment of Indigenous peoples, whose dispossession results in additional risks and harms, including the disruption of vital eco-social relations. Elimination of Indigenous peoples is required for acquisition of territory; however, symbolic maintenance of indigeneity is necessary for the assertion of state independence from the mother country (Wolfe, 2006). In relation to the environment, therefore, settler colonialism creates a society in which Indigenous peoples are simultaneously made both *absent* from what is constructed as empty, wild space and *present* in the wilderness landscape as "ecological Indians" (Nadasdy, 2005; Redford, 1990) possessing knowledge that can be appropriated for environmental purposes. Both eliminatory and appropriative constructions of Indigenous peoples are racialized (Bang et al., 2014; Ilyniak, 2014; Veracini, 2011) and gendered (A. Simpson, 2016), establishing "circles of inclusion and

exclusion in which the settler constructs himself as normative and superior vis-à-vis Indigenous and non-Indigenous others" (Bang et al., 2014, p. 40).

In this context, repetitious and compulsive assertions of settler industry are necessary to the maintenance of settler superiority, as a "continual disavowal of history, Indigenous peoples' resistance to settlement, Indigenous peoples' claims to stolen land, and how settler colonialism is indeed ongoing, not an event contained in the past" (Tuck et al., 2014, p. 7). Settler colonial values and interests are thus reinforced through multiple efforts by settlers to "establish roots, write history, and deny colonial relations (past and present). These efforts are material and discursive. They are made up of narrative processes of intervention. Geographies, histories, art, literature, music, and politics join forces to invent roots and nurture attachments" (Cooke, 2016, p. 237). As Mackey (2016) asserts, dominant logics of settler colonialism become naturalized within settler "structures of feeling" (Mackey, 2016, p. 19), whereby settlers come to expect certainty through fantasies of entitlement to the land. These

> settled expectations…are characterized by the entitled desire to own, bound, improve, appropriate, define, subdue, and control both land and so-called inferior beings in specific ways. These approaches, deeply linked to western notions of property and personhood, also secure a fantasy of certainty that allows settlers to expect that, because of their superiority, they would naturally continue to own the land and that Indigenous peoples would inevitably disappear. (Mackey, 2016, p. 54)

Despite these ideological and material violences, Indigenous resistance has ensured the persistence of Indigenous life and knowledge, which continue to test settler colonialism, as I will explore in more detail below. Thus, we may approach settler colonialism as an incomplete and contradictory project, characterized by "cracks and fissures" as Indigenous peoples assert their knowledges in opposition to colonial frameworks.

Recent scholarship, particularly by Potawami scholar, Kyle Powys Whyte (Whyte, 2017, 2018, 2019), has explicated the environmental injustice inherent to settler colonialism (see also Gilio-Whitaker, 2019; Ilyniak, 2014; Simpson, 2014). Further refining Wolfe's notion of territoriality inherent to settler colonialism, Whyte emphasizes how,

> as an injustice, settler colonialism refers to complex social processes in which at least one society seeks to move permanently onto the terrestrial, aquatic, and aerial places lived in by one or more other societies who already derive economic vitality, cultural flourishing,

> and political self-determination from the relationships they have established with the plants, animals, physical entities, and ecosystems of those places. (Whyte, 2017, p. 158)

Whyte asserts that "settler colonialism works strategically to undermine Indigenous peoples' social resilience as self-determining collectives" (Whyte, 2018, p. 125) by "creat[ing] their own ecologies out of the ecologies of Indigenous peoples" (Whyte, 2018, p. 135), while erasing the violence of this process (see also Bacon, 2019; Gilio-Whitaker, 2019; Ilyniak, 2014). Whyte outlines the array of means by which Indigenous "collective continuance" is undermined by settler uses of land, from the importation of invasive species to the degradation and parceling of land for commercial, agricultural, and recreational purposes. Such violence occurs on an off reserve lands. As Belcourt describes, the reserve is where Canada as a settler state "[dumps] biological risk, polishing the structurally produced vulnerability of Indigenous bodies, compressing them into containers for sickness. On the reserve, doing nothing in the face of biosocial violence is often how empire besieges Indigenous worlds" (Belcourt, 2018, p. 9), though violence is wrought off reserve as well. Furthermore, changes to the land, particularly when compounded with other colonial policies and practices, have detrimental effects on Indigenous identities, security, food sovereignty, knowledge systems, systems of governance, and political self-determination. These effects are gendered, with violence to the earth linked with violence to women (Gilio-Whitaker, 2019, p. 120; Whyte, 2014), through impacts on women's food sovereignty, disposession of women's decision-making authority under hetero-patriarchal structures, and increased exposure of women to violences associated with settler industry.

In the face of these violences, "settler populations suppress the unsustainability of their society, avoiding discussions of the industrial bases of their society. So many members of settler populations are not actually aware of the sources of their energy or consumer lifestyles" (Whyte, 2018, p. 137), particularly as the detrimental effects of settler society are largely felt by Indigenous peoples and other marginalized or oppressed groups. Further, the unsustainable and extractive means of settler home-making are both built into national narratives and also "hidden in plain sight [through] narratives of recreation and natural beauty that mask histories of landscape degradation or underlying sources of weapons or energy" (Whyte, 2016, p. 18), where settlers are storied as ecological stewards who have adopted the land (Paperson, 2014). Following historical white supremacist uses of science to legitimate race and land use, seemingly

neutral scientific discourses reinforce these narratives, wherein science is manipulated to legitimize particular political and economic interests (Ilyniak, 2014, p. 56). Environmental impacts are downplayed through scientific reporting and assessment practices that uphold settler interests at the expense of Indigenous peoples (McCreary & Milligan, 2014), following the "politics of recognition" (Coulthard, 2014) described below. In line with these processes of naturalization, some settler advocacy efforts for environmental issues such as pipelines are limited by their mainstream environmentalist orientations, as they do "not engage the longer and larger issues pertaining to mechanisms of colonial power that engendered and maintain land dispossession and the denial of self-determination" (Whyte, 2018, p. 139); thus, "decolonization and environmental justice cannot be understood separately of one another" (Ilyniak, 2014, p. 59) if just change is to occur. In these ways, settler colonialism is an "ecological form of domination" (Whyte, 2018, p. 137), which brings environmental violence with particular impacts on Indigenous peoples, necessarily leading to decolonial and resurgent forms of resistance and change.

White supremacy is central to colonial forms of ecological domination, though it often remains shrouded by mainstream environmentalist discourse within the Canadian national context. In a nation founded on the removal of Indigenous people from their lands for resource acquisition, racial hierarches mark Indigenous people for erasure and genocide, while white settlers are produced as national subjects with legitimate claims to land (Crosby, 2021; McLean, 2013; McLean et al., 2017; Thobani, 2007). White settler identity is "co-constructed with Indigeneity" (McLean et al., 2017), where discourses of democracy, civility, purposeful labour, and survival in Canada's wilderness mark white bodies as superior and claim the land for white nation-building (Baldwin, 2009; McLean, 2013; McLean et al., 2017), while denying Indigenous sovereignty and erasing the colonial domination that established white state rights. Colonial processes thus hierarchically divide not only bodies but also the land, as white supremacy creates "inherently a culturally genocidal structure that systematically erases Indigenous peoples' relationships and responsibilities to their ancestral places" (Gilio-Whitaker, 2019, p. 36). Within this context, Indigenous peoples and undesirable lands are together subject to what Tracy Voyles calls "wastelanding," a "process where particular lands and particular bodies… are deemed pollutable" (cited in Gilio-Whitaker, 2019, p. 64). By contrast, desirable land is claimed through the concept of a pure, unpeopled, unspoiled "wilderness" constructed as a "cleansing system, a

place where white bodies can escape the negative consequences of urban industrialism, and reclaim identities of innocence" (McLean, 2013, p. 361; see also Baldwin, 2009). While environmentalism has more recently been recognizing Indigenous sovereignty and land-based knowledge, Baldwin (2009) claims that white supremacy still functions hegemonically through the benevolence of colonizers in "help[ing] the colonized reoccupy tradition" (Baldwin, 2009, p. 439), thus enabling liberal whiteness to claim a moral equivalence to indigeneity. Further, Baldwin asserts that white mobility enables settler environmentalism to position the land within the universal space of global climate issues through discourses of "equivalent loss," which erase the colonial nature of Indigenous dispossession. In contrast with white mobility, Indigenous land claims and protective actions are constructed as the activities of a special interest group (McLean, 2013), according to racial logics that position Indigenous people as greedy and factional, with "irrational, illegitimate, and unproductive" (Crosby, 2021, p. 7) claims to land. With Indigenous claims construed as illegitimate and violent, surveillance is not only justified by settler authorities, but it perpetuates settlers' self-image as superior and peace-making while securing their material interests (Crosby, 2021; Crosby & Monaghan, 2016). Considering these complex racial dynamics, environmentalism risks becoming a "place where 'good' white people can maintain superiority by saving both the environment and people of color, which includes Indigenous communities devastated by environmental destruction" (McLean, 2013, p. 358). Analyzing Instagram's pipeline public pedagogy from an anti-colonial perspective therefore necessitates an analysis of the intersections of colonialism and white supremacy.

Settler colonialism and capitalism.

Capitalism is also inherent to colonial relations and must therefore be considered in an analysis of Trans Mountain public pedagogy, particularly as Instagram expressions directly respond to capitalist processes or are subtly circumscribed by them in various ways. Even where Trans Mountain public pedagogy actively opposes settler colonialism, resistance may still be complexly bound within capitalist formations as, for instance, when some Indigenous groups sign benefit agreements or seek to own and capitalize on the pipeline despite its detrimental effects on their communities and lands, and the contradictions it poses to their worldviews. Analysis of capitalist processes therefore supports a more robust analysis, particularly as Trans Mountain public pedagogy addresses not only ecological degradation but also issues of social and economic justice.

Land, environment, and extractive issues stand at the intersection of settler colonialism and capitalism within a state that originated as a corporation: the Hudson's Bay Company. While some scholarship foregrounds capitalist processes of "accumulation by dispossession" (Goldstein & Roy, 2017; Harvey, 2004) as they are expressed in settler colonial contexts, other work shifts the focus of "investigation from an emphasis on the *capital relation* to the *colonial relation*" (Coutlhard, 2014, p. 10). Attention to the colonial relation illuminates specific processes of land degradation, dispossession, and settler accumulation in colonial expressions of capitalism and highlights the ontological relation between Indigenous peoples and land that is absent from some analyses of capital relations.

Access to territory is the primary motive of settler colonialism (Wolfe, 2006, 2013), as discussed above. Thus, for settler colonial contexts, capitalist exploitation of *labor* is secondary to exploitation of *land*, via processes of "accumulation by dispossession" (Goldstein & Roy, 2017; Harvey, 2004). Here, capital is accumulated in the hands of a few by dispossessing others of their land and resources. Goldstein (2017) emphasizes the ongoing and racialized nature of dispossession within settler colonial contexts, where Indigenous "dispossession is not one historical moment in a teleology of capitalist development, but continues and changes over time in ways that operate in conjunction with other forms of expropriation and subjection and the differential devaluation of racialized peoples" (Goldstein & Roy, 2017, p. 45). Capitalist accumulation within settler colonial contexts is thus not an event contained in the past but involves ongoing processes of dispossession, both violent and subtle (N. A. Brown, 2014; Coulthard, 2014; Lloyd & Wolfe, 2016).

Processes of accumulation by dispossession have been shown to have profound ecological impacts. Though they focus not on settler colonialism but on imperialism, Foster and Clark (B. Clark & Foster, 2009; Foster et al., 2011; Foster & Clark, 2004) draw attention to the ecological and climate impacts of capitalism in relation to land dispossession, impacts that are paralleled in settler colonial contexts. Foster and Clark link the concentration of wealth in the global north to the exploitation of people and nature through various processes, including:

> the pillage of the resources of some countries by others and the transformation of whole ecosystems upon which states and nations depend; massive movements of population and labour that are interconnected with the extraction and transfer of resources; the exploitation of ecological vulnerabilities of societies to promote imperialist control; the

> dumping of ecological wastes in ways that widen the chasm between centre and periphery; and overall, the creation of a global 'metabolic rift' that characterizes the relation of capitalism to the environment. (Foster & Clark, 2004, p. 187)

Through these processes, the lands and ecosystems belonging to the periphery become "mere appendages to the growth requirements of the advanced capitalist centre" (B. Clark & Foster, 2009, p. 314), a process that is mirrored within settler colonial contexts, where Indigenous lands often constitute the "periphery," being exploited for the state. The concept of "ecological imperialism" is helpful in understanding the creation of rifts in the "relations between humanity and the Earth and within nature itself" (Foster & Clark, 2004, p. 187), as well as how ecological violence is contained within global economic systems – systems in which the settler colonial state is embedded. At the same time, this conceptualization focuses on a divide between the global North and South instead of dynamics within settler colonial states, not speaking explicitly to settler colonial violences and dispossession. Further, the proposed solutions to ecological imperialism involve payment by core capitalist nations of their "ecological debt" to the periphery, or more radical transformation of capitalist regimes via cessation of incessant accumulation. While these solutions do promote the restoration of the natural world, they do not address Indigenous conceptions of land or Indigenous-settler relations on unequally shared lands; they thus bypass the ontological violence wrought by such exploitation and present no means by which to transform colonial relations.

By contrast, scholars who explicitly shift the frame of analysis from the capitalist relation to the colonial relation name capitalism as one of a number of intersecting power relations inherent to colonialism, along with patriarchy, white supremacy, gendered and sexual violence, and state power, among others (N. A. Brown, 2014; Coulthard, 2014; Morton, 2019; Nichols, 2018). As part of ongoing settler colonialism, capitalism is also ongoing, not an earlier stage in civilizational development, as stated above. Thus, capitalism was not established via historical acts of violence contained in the past but is part of ongoing violent processes that provide "state access to the land and resources that contradictorily provide the material and spiritual sustenance of Indigenous societies on the one hand, and the foundation of colonial state-formation, settlement, and capitalist development on the other" (Coulthard, 2014, p. 7). By foregrounding the colonial relation, it is possible to understand the unique intersections of capitalism and land in settler colonial contexts, which extends beyond the effects outlined above in relation to

"ecological imperialism." For Indigenous peoples, land is not merely a material object of profound importance; rather, it is a "way of knowing, experiencing, and relating with the world – and these ways of knowing often guide forms of resistance to power relations that threaten to erase or destroy our senses of place" (Coulthard, 2014, p. 79). Thus, capitalism in settler colonial contexts such as Canada is not only ecologically destructive, but it is an affront to Indigenous sovereignty, knowledge systems, cultures, and identities (Coulthard, 2014; Morton, 2019; Nichols, 2018).

Dispossession takes on a particular structure in settler colonial contexts. Nichols (2018) asserts that the term "dispossession" functions in a "seemingly paradoxical manner to denote the fact that Indigenous peoples have had the territorial foundation of their societies (i.e., their ancestral lands) stolen from them, while simultaneously asserting that these lands were not 'property' in the (pre-colonial) first instance" (Nichols, 2018, p. 11). In settler colonial contexts, therefore, dispossession transforms land into property through a "unique species of theft" characterized by a

> large-scale transfer of land that simultaneously recodes the object of exchange in question such that it appears retrospectively to be a form of theft in the ordinary sense. It is thus not (only) about the transfer of property, but the transformation into property. In this context then dispossession may refer to a process by which new proprietary relations are generated, but under structural conditions that demand their simultaneous negation. (Nichols, 2018, p. 14)

Heteropatriarchal relations shape this transformation of land into private property, involving both the "establishment of natural environmental elements as property (be it fur pelts or land) and protecting them for one's immediate family (first understood as the trading post, and later as a biologically-reproduced kin unit)" (Morton, 2019, p. 447). This transformation detrimentally impacts Indigenous kinship relations while also categorically excluding them from accruing wealth (Morton, 2019), undermining Indigenous economies and making Indigenous peoples dependent on the capitalist state (A. Manuel & Derrickson, 2017). Dispossession therefore introduces capital relations into colonial landscapes by transforming then naturalizing relations between peoples and lands in exploitative ways. Writing from the same lands the Trans Mountain crosses, Secwepemc leader and activist Arthur Manuel describes: "our hunting grounds, our fishing spots, our berry patches and other gathering places were cut off by fences

and then enforced by a maze of regulations" (A. Manuel & Derrickson, 2017, p. 67). While the state generated revenue from oil and gas, lumber, minerals, and agricultural land, Indigenous people were corralled onto reserves and made dependent on relief funding from the state. Articulating the history of dispossession, Manuel demonstrates how it leads first to systemic dependency shrouded by a façade of Indigenous leadership under the Band system, where both Indigenous poverty and financial relief are ultimately managed by the state and enforced through oppressive policing and surveillance measures (A. Manuel & Derrickson, 2017, pp. 67–75). Now, Indigenous sovereignty, including economic decision-making, is profoundly circumscribed as

> funding is directly linked to plugging into the charity programs of federal and provincial governments or plugging into the capitalist economies of the federal and provincial governments. You have no self-determination under those economic arrangements. None of your values are listened to or reflected through federal and provincial government legislation, regulation and policies. (A. Manuel & Derrickson, 2017, p. 148)

Despite dispossession and the alienation of Indigenous peoples from the land by an oppressive state, settler colonialism is notably a failed project, and Indigenous peoples continue to resist dispossession and maintain an ontological relationship to land (N. A. Brown, 2014), making visible the processes the state seeks to conceal.

Due to ongoing Indigenous resistance, settler possession cannot extinguish Indigenous sovereignty and ties to land; therefore, settler colonialism is "predicated on a false or fictitious dispossession, albeit one with profound material consequences" (N. A. Brown, 2014, p. 7). Considering Indigenous resistance to dispossession, Brown (2014) defamiliarizes dispossession and retheorizes capitalism under settler colonialism by placing emphasis on *accumulation* and "white possession, including its precarity, often signified by anxiety" (N. A. Brown, 2014, p. 7). Due to the tenuousness of dispossession and desires for capital accumulation, settler states are inherently predicated on fear and insecurity, necessitating oppressive state responses through policing, surveillance, and legal measures (Crosby, 2021), and justifying settler citizen violence towards Indigenous peoples in protection of private property (Morton, 2019) – realities that are indeed reflected in Instagram's Trans Mountain public pedagogy. In fact, securitizing discourses, policies, and actions naturalize oppressive processes by prioritizing private property. For instance, resource developments such as pipelines are defined as "critical infrastructures"

through discourses that not only "work to dispossess and dislocate Indigenous peoples from their natural infrastructures" (Crosby, 2021, p. 6) and economies but also frame protection of Indigenous lands through resistance to critical infrastructure as threats to national security, justifying "elaborate bureaucratic mechanisms, policing tactics and technologies, and systems of security governance that operate within the contours of the eliminatory logic of settler colonialism" (Crosby, 2021, p. 5). Through criminalization and incarceration of land defenders, Indigenous communities become drawn into "lengthy and costly legal proceedings, removing them as obstacles from destructive development on the land" (A. Manuel & Derrickson, 2017, p. 225) and protecting capital investments in extractive projects. Writing from Treaty 6 territory, where the Trans Mountain pipeline originates, Morton (2019) articulates how, by framing violent occupation as peaceable and just maintenance of private property, settlers "creatively enhance" the ongoing settler colonial terror structure described by Moreton-Robinson (2015) as "the white possessive," which perpetuates Indigenous dispossession through the "possessive logics of patriarchal white sovereignty" (Moreton-Robinson, 2015, p. xi) and seemingly neutral capitalist discourses.

Settler accumulation and possession persists by following a distinct set of processes that respond to Indigenous resistance, and this dialogic relation is evident in Instagrammed Trans Mountain public pedagogy. In settler colonial contexts such as Canada, accumulation works less through "overt state violence or the 'silent compulsion' of markets" (N. A. Brown, 2014, p. 8), or through "[indoctrination of] Indigenous population to the principles of private property, possessive individualism, and menial wage work" (Coulthard, 2014, pp. 12–13), though these tactics are also used. Instead, settler accumulation is perpetuated via the liberal politics of recognition (Coulthard, 2014; McCreary & Milligan, 2014, 2018), wherein the state accommodates Indigenous culture and nationhood through such processes as consultation and land claims, as described in Chapter 2 above. These processes do not build economic power for Indigenous peoples but instead draw them into capitalist plans that benefit corporations and the settler state (A. Manuel & Derrickson, 2017, p. 149). Rather, the "normalisation of settler jurisdiction over Indigenous peoples and lands conceptually reduces Indigenous peoples from communities exercising distinct forms of jurisdiction and authority, to the category of a racial minority seeking advancement through specific rights within the state" (McCreary & Milligan, 2018, p. 6). Race is a constituent element of liberal recognition, particularly as the state links

"Indigenous rights to the continuation of historic Indigenous relationships to intact ecosystems, idealising a timeless Indigeneity and identifying it with pre-industrial eco-social relations" (McCreary & Milligan, 2018, p. 13), obscuring the dynamism of Indigenous peoples and instead "normalizing…the trajectory of resource extractive industries into the future" (p. 13). These processes do not alter Crown sovereignty and thus reproduce the very capitalist and colonial configurations that recognition purports to overcome, leading to further Indigenous resistance and resurgence. As resistance in turn responds to processes of settler accumulation, resistance and accumulation follow a dynamic feedback loop within settler colonial contexts. Consequently, resistance is structurally limited within settler colonial contexts (Altamirano-Jiménez, 2004; A. Manuel & Derrickson, 2017; McCreary & Milligan, 2014, 2018), and Indigenous resistance may thus at times be antagonistic to itself, depending on whether it works within or resists the colonial system altogether.

Extractivism.

A specific capitalist expression within settler colonial contexts is extractivism, which defines the land and bodies as resources valued solely for their profit, regardless of social impacts (Szeman & Wenzel, 2021; Willow, 2016). Within an extractivist frame, settler ambitions for territorial acquisition are directly linked with desire for resources, which are acquired at the expense of "Indigenous peoples' land-based self-determination; [extractivism] undermines their ability to make independent choices regarding customary landbases and thereby determine the trajectory of land-based livelihoods, cultural beliefs and practices, and the array of opportunities available to future generations" (Willow, 2016, p. 4) – not to mention the toxicity that harms the lands and bodies of those located in close proximity to extractive sites. As a component of settler colonial violence, extraction initiatives are described as "genocidal policies of assimilation disguised… as philanthropic instruments of 'progress'" (Huseman & Short, 2012, p. 229). According to Simpson (2013):

> Extraction and assimilation go together. Colonialism and capitalism are based on extracting and assimilating. My land is seen as a resource. My relatives in the plant and animal worlds are seen as resources. My culture and knowledge is a resource. My body is a resource and my children are a resource because they are the potential to grow, maintain, and uphold the extraction-assimilation system. The act of extraction removes all of the relationships that give whatever is being extracted meaning. Extracting is

> taking. Actually, extracting is stealing—it is taking without consent, without thought, care or even knowledge of the impacts that extraction has on the other living things in that environment. That's always been a part of colonialism and conquest. Colonialism has always extracted the indigenous—extraction of indigenous knowledge, indigenous women, indigenous peoples. (L. B. Simpson & Klein, 2017)

As an component of settler colonialism, extractivism has been and continues to be embedded in Canadian policy, both through treaty development processes, such as the establishment of Treaty 8 for oil extraction in northern Alberta (Huseman & Short, 2012; Preston, 2013, 2017; Willow, 2016) and by the state's reliance on the Indian Act to control Indigenous populations rather than working with them in a nation-to-nation relationship (L. B. Simpson & Klein, 2017). As with other dimensions of settler colonialism, extractivism is naturalized in mainstream Canadian society. In fact, extractivism is embedded in nationalistic discourses, connected to values of frontier exploration, innovation, and modernity (Preston, 2017). Canada possesses a long history of resource extraction for economic growth (Barney, 2017; Dobson, 2017), and pipelines have arguably held a role in forming the "material infrastructure of Canada's unfinished rebirth as a distinctly 'modern' nation" (Barney, 2017, p. 80). Following Szeman and Boyer's (2017) concept of "petrocultures," extractivism reflects the "equation of energy and modernity" (Szeman & Boyer, 2017, p. 3), at the apex of which is "northern white masculinity," which "drove the globalization of fuel-intensive life...through centuries of colonizing violence" (Szeman & Boyer, 2017, p. 9). The collateral damage of extractivism, unsurprisingly, is also gendered, with the bodies of women, and Indigenous women particularly, being subject to sexual violence at extraction sites and in surrounding communities (Sweet, 2013; Whyte, 2017).

Despite these violences, extractive industries purport to contribute to economic progress and job opportunities for "all Canadians" via discourses that "obscure and normalise ongoing processes of environmental racism, Indigenous oppression and violence" (Preston, 2013, p. 43). Further, as part of the definition of "Canadianness," extractivism frames our national identity in opposition to foreign sources of resources that are constructed as unethical or as perpetuating terror (Preston, 2013), for instance by far-right media outlet, Rebel Media (see also Levant, 2011). Petrocapitalist values are reiterated via mainstream education (Ballantyne, 2014; Eaton & Day, 2020; Tannock, 2020) and widespread promotion of extraction's economic benefits and ethical nature. As Schram et al. (2016) demonstrate, mainstream media supports neoliberal

policy making at the federal level by "engendering hegemony surrounding neoliberal policies as unquestioned 'common sense'" (p. 159). In this context, subtle yet racist framing of Indigenous peoples as unskilled, economically unproductive, or in need of training and development – as "non-labour" – serves to legitimate appropriation of their land and resources for extractivist ends, which is often shrouded in discourses of corporate and social responsibility or Aboriginal policies (Friedel & Taylor, 2011; Jiwani & Young, 2006; Preston, 2013, 2017). If resistant, Indigenous peoples are depicted as "militant… signifying an overdemanding, unreasonable, and highly emotional people" (Harding, 2006) and are kept at bay through court injunctions that favor extractive industries (Ceric, 2020; A. Manuel & Derrickson, 2017; Spiegel, 2021a). Problematically, even when Indigenous peoples are cited in the media on issues such as pipeline projects, they become co-opted through the politics of recognition and commodified for greenwashing projects as sustainability "experts," allowing the government "to relinquish responsibility and decision-making to indigenous groups, inadvertently framing them as issue owners and those responsible if dialogues with corporations do not work out" (Piotrowski, 2013, p. 634). Due to these normalizing processes within a colonial media system (Elliott, 2016), "corporate extraction [even] under the threat of militarized state violence refuses the label of colonialism because it is done in the name of the 'public good' of citizens' development" (Da Costa & Da Costa, 2019, p. 6) and capital gains. Problematically, these forces combine to pose Indigenous peoples with profound contradictions concerning self-determination over their lands, the need to provide resources for their own communities, and cultural values that hold the land to be a living relative and not a source of resources for profit.

Recognizing the extractivist nature of settler colonialism is helpful when examining the pipeline issue and its resistant public pedagogy, particularly as Instagram expression either engages extractivism and upholds the settler colonial petro-state or opposes nationalist discourses, introducing assertions of Indigenous self-determination and reconfigurations of the land beyond resource discourses. Economic analysis is a necessary complement to the political analysis supported by settler colonial frameworks, particularly as "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" (Willow, 2016, p. 12) within the settler colonial state.

Climate change and settler colonialism.

Linked with extractivism via the effects of the fossil fuels, climate change also generates unique expression and effects within settler colonial contexts, and an understanding of these nuances is critical to making sense of public pedagogical links between the Trans Mountain pipeline and climate issues. On a shared planet, climate impacts will inevitably affect everyone through

> a planetary rift in the human relation to the global commons – the atmosphere and oceans. This planetary ecological rift, arising from the workings of the capitalist system and its necessary companion imperialism, while varied in its outcomes in specific regions, has led to ecological degradation on a scale that threatens to undermine all existing ecosystems and species (including the human species). (Foster & Clark, 2004, p. 193)

Despite these realities, the settler state – and those who economically benefit within it – maintains climate denial and continues to protect and promote the fossil fuel industry. For instance, the Alberta government under Premier Jason Kenney opened an "Energy War Room" to counter opposition to fossil fuels and eliminate the spread of what is termed "misinformation" about climate science – an initiative that has drawn criticism from Amnesty International for impacting "the rights of Indigenous peoples and gender equality" (Neve, 2019). In contrast with the state response, scholarship and activism combine concern over environmental degradation and Indigenous sovereignty with opposition to extraction and greenhouse gases produced by burning fossil fuels, drawing attention to the impacts of corporate interests on public policy (Gilio-Whitaker, 2019, p. 109).

Within the context of climate policy-making, Indigenous peoples have emerged as global leaders in the climate justice movement (Gilio-Whitaker, 2019, p. 109) and asserted themselves through their own strategic self-representation, by which they "appear to be creating a political identity based on their ability to sustainably manage natural resources and their perceived mandate to protect mother earth" (Doolittle, 2010, p. 287; see also Martello, 2008). Indeed, one Indigenous group, Indigenous Climate Action, emerged directly proximal to the tar sands, hosting their inaugural meeting in the heart of Treaty 6 territory at Amiskwaciwâskahikan (Edmonton) (*Indigenous Climate Network*, n.d.). Indigenous scholars and activists draw attention to the intersections of settler colonialism and climate change. Along with environmental and

extractive issues, climate issues aggravate other forms of colonial violence, including industrial destruction of the land, gendered violence, disregard for more-than-humans, comprehensive land claims, and other forms of systemic violence and racism. In fact, Wildcat (2009) discusses climate vulnerability as the "third colonial removal" (qtd. in Whyte, 2017, p. 155), after geographic and social or psycho-cultural removal. Indigenous peoples are first among climate refugees, they face the loss of traditional knowledge due to rapidly changing ecological conditions and land degradation due to extractive industries, their cultural practices have been affected by the away-migration of their more-than-human relatives (Whyte, 2017), and defenders of their ways of life experience disproportionate levels of violence. Despite these losses, Indigenous climate scholars resist the framing of Indigenous peoples as "climate victims," suffering from "bad luck climate justice" (Whyte, 2016, p. 15) that results from poor socio-economic conditions and proximity to the land. Instead, they address the depoliticization, displacement, and ultimate erasure of Indigenous peoples via settler colonialism, which removes Indigenous peoples from their land base and secures the land for capitalist settler (mis)use, including through projects with detrimental climate affects like the Trans Mountain.

Indigenous decolonial and resurgent approaches to the land.

Considering the prominence of Indigenous and decolonial public pedagogy surrounding the Trans Mountain pipeline, and to ensure this research is accountable to these efforts, I apply settler colonial theory in tandem with Indigenous decolonial and resurgent approaches to the environment or *land* (Battiste, 2005; Davis & Todd, 2017; Grande, 2015; Guerrero, 1997; S. Hunt, 2014; LaDuke, 1994, 1994; Lee, 2016; L. B. Simpson, 2014, 2017; L. R. Simpson, 2004; Todd, 2014, 2016; Tuck et al., 2014; Whyte, 2016, 2017, 2019), as well as Indigenous expressions of land-based education (Battiste, 1998; Corntassel & Hardbarger, 2019; Goodyear-Ka'ōpua, 2009; Grande, 2015; Lowan, 2009; Paperson, 2014; L. B. Simpson, 2014; Wildcat et al., 2014). As settler colonial research may easily find itself inadvertently centering settler thought, I attend to these scholars in keeping with Indigenous efforts to "shift the focus (and power) from the 'centre' (colonizer) to community-based local knowledge systems and practices" (Corntassel & Hardbarger, 2019, p. 28) according to Indigenous peoples; this is also a motivation for exploring Instagram as a site of resistant, decolonial, and situated pedagogies. By applying this framework to my research, I hope to "make explicit and resist the epistemic and ontological consequences of settler colonialism[,which is] necessary for viable, just, and

sustainable change" (Bang et al., 2014, p. 48). For the purposes of my study, such scholarship may help expose performances of settler colonialism in Trans Mountain pipeline pedagogy, while simultaneously highlighting resurgent public pedagogical expressions on Instagram.

While they are divergent in their approaches, these scholars conceptualize land as the grounds for Indigenous knowledge and identity in ways that both express Indigenous resurgence and resist settler-colonial structures. A litany of Indigenous scholars draw a connection between settler colonialism, land dispossession, white supremacy, and violence to the land:

> Lee Maracle writes that 'violence to earth and violence between humans are connected' (2015: 53). Eve Tuck and K. Wayne Yang discuss how 'the disruption of Indigenous relationships to land represents a profound epistemic, ontological, cosmological violence' (2012: 5). Vanessa Watts claims that 'the measure of colonial interaction with land has historically been one of violence . . . where land is to be accessed, not learned from or a part of' (2013: 26). The Women's Earth Alliance and The Native Youth Sexual Health Network recently produced a report entitled Violence on the Land, Violence on Our Bodies: Building an Indigenous Response to Environmental Violence. The report states that colonially supported extractive industries create 'devastating impacts of environmental violence' (WEA and NYSHN 2016). J.M. Bacon refers to 'colonial ecological violence' as a process of 'disrupt[ing] Indigenous eco-social relations' (2018: 1). (Whyte, 2018, p. 125)

In the face of such violence, Indigenous resurgence and survival is an effort that combines "dismantling settler colonialism and actively protecting the source of our knowledge – Indigenous land" (L. B. Simpson, 2014, p. 22). Such protection and reorientation towards the land may find expression through promotion of land-centered literacies (Corntassel & Hardbarger, 2019; Goodyear-Ka'ōpua, 2009; L. B. Simpson, 2014); restorying the land by "living [Indigenous] stories in contested lands and restoring land as the first teacher even in 'urban' lands" (Bang et al., 2014, p. 49) and wasteland spaces; healing and cultural regeneration through everyday practices and reconnections with land, water, and more-than-human relatives (Corntassel, 2012; Corntassel & Hardbarger, 2019); and direct action to protect the land (Barker, 2015; Ilyniak, 2014). Land-based practices focus on a variety of means of developing

> sustainable self determination… focusing on individual, family and community responsibilities, regenerating local and regional indigenous economies, and recognizing

> the interconnection of social, spiritual, environmental and political aspects of self-determination. The ultimate goal is for indigenous people to have the freedom to practice indigenous livelihoods, maintain food security and apply natural laws on indigenous homelands in a sustainable manner. Critical to this process is the long-term sustainability of indigenous livelihoods, which includes the transmission of these cultural practices to future generations. (Goodyear-Ka'ōpua, 2009, pp. 60–61)

Some efforts refuse institutional, rights-based, or resource-oriented approaches to land-based and environmental issues, rejecting "political and/or economic solutions to contemporary challenges that require sustainable, spiritual foundations" (Corntassel, 2008, p. 116) by working outside the state and dominant culture (Alfred & Corntassel, 2005; Coulthard, 2014). Others assert self-management of degraded homelands and repatriation of Indigenous territory (Calderon, 2014). In each case, land-based practices are inherently tied to decolonization, as "resurging and sustaining Indigenous life and knowledge acts in direct contestation to settler colonialism and its drive to eliminate Indigenous life and Indigenous claims to land" (Wildcat et al., 2014, p. III; see also Barker, 2015; Corntassel, 2012; Ilyniak, 2014). Considering the opportunities for counterhegemonic expression on social media platforms, land-based and resurgent public pedagogies may be evident on Instagram, contesting settler-colonial framing of the pipeline issue.

Colonial media.

Much mainstream media and corporate campaigning in Canada naturalizes settler colonial relations between Indigenous and non-Indigenous peoples and with the land, propping up colonial decision-making around extractive projects such as the Trans Mountain pipeline and interacting in social media public pedagogies as publics take up, resist, or refuse colonial representations. Issues of colonial media representation are widely recognized and, as such, have been included in Canada's Truth and Reconciliation Commission (TRC) Calls to Action (2015), which draws on Article 16 of the UN Declaration on the Rights of Indigenous Peoples (2007) to promote Indigenous content in the media and Indigenous ownership and control over some media outlets. Despite these efforts to transform the coloniality of media, however, stereotyped media representations persist, and the structural elements of both mainstream and social media, including the underlying power imbalances between colonizer and colonized, remain beyond the purview of these policies (Elliott, 2016). Further, historic colonial media representations are

necessary to perpetuating settler colonial efforts in the present and ensuring settler futurity on the land, and they thus continue to take shape not only in the mainstream but also across social media platforms. Of course, wherever colonial media persists, so do resistant and resurgent efforts to transform relations on this land.

Settler media representations have continuously represented the land as an empty *terra nullius*, a backdrop for settler agency over and against Indigenous peoples, whose agency and sovereignty are undermined via racist representations. Colonial ocular regimes have historically been used to exert control over land and people for settlers' benefit, and these regimes persist in the present as "colonial approaches to vision and visuality shape contemporary conversations about land, resources, institutions and environmental imaginaries" (Spiegel et al., 2020, p. 3; referring to Braun, 2002). Naturalized in relation to mainstream capitalist conceptions of private property, environmental efficiency, and economic growth in the national interest, representations of settler colonial landscapes entrench "ways of seeing and representing places that facilitate the dispossession of Indigenous people from their territory, as well as the tangible forms given to places by agents of Indigenous displacement and extermination which facilitate construction of a colonial society" (Proulx & Crane, 2020, p. 62). Across various public media, including photography, news reporting, film, and other popular media, Indigenous peoples have been variously represented, "from portrayals as non-human, savage or vanishing peoples to more recent depictions as symbolic spiritual and environmental stewards" (Friedel, 2008, p. 245). Instead of representing Indigenous peoples' lived experiences in all of their diversity, various tropes – the Indigenous person as a wise Elder, licentious woman (or Squaw), vanishing Indian, militant warrior, child-like primitive, and ecological Indian (Francis, 1992; Friedel, 2008; Harding, 2006; Jiwani & Young, 2006; Johnson, 2011; Redford, 1990) – have all fueled settler imaginations and legitimized settler control of Indigenous people's bodies and land. In British Columbia (BC) media specifically, Indigenous people tend to be caught in a binary, represented with either a childlike passivity, exhibiting their need for the benevolent state to move them towards progress, or an unreasonable and emotional militance, as they express agency in land claims or extraction projects (Harding, 2006); in both cases, state decision-making authority is reinforced. Similarly, corporations in Alberta's energy sector justify their activities by leveraging the trope of the "ecological Indian" to greenwash the oil sands or by promoting corporate responsibility through paternalistic discourses of Indigenous partnerships that echo historic

narratives of benevolent Mounties (RCMP) as the go-between in Indigenous-state relations (Friedel, 2008). Clearly, the selective and framing power of mainstream media is utilized to erase colonial histories and selectively incorporate Indigenous people's voices and perspectives in ways that support dominant, colonial thought and Canada's national identity as a benevolent and multicultural society "through techniques of deflection, decontextualization, misrepresentation and tokenization" (Harding, 2006, p. 225).

The advancement of digital technology and social media has arguably augmented colonial representations and contributed to colonial violence. Social media have facilitated "platformed racism" (Matamoros-Fernández, 2017), hosting hate groups and baking biases into algorithms that determine, monitor, and promote content to the detriment of marginalized peoples. Indigenous peoples, and land protectors specifically, are particularly vulnerable to digital surveillance, an issue that is augmented by the control of Internet infrastructures, platforms, and devices within a colonial-capitalist system largely driven by data gathering (Duarte & Vigil-Hayes, 2017). In this context, marginalized people perform considerable unpaid labour in order to teach the public about such issues as racism, sexism, and homophobia. However, this labour is paradoxically treated as "unwanted" by fellow users, resulting in the harassment and trolling of social media posters, while simultaneously being encouraged by platforms in efforts to increase traffic and augment value gained through increasing readership, followers, and therefore data for sale (Nakamura, 2015; Zuboff, 2020). Through their very structure, therefore, social media platforms create unsafe conditions for some, according to colonial and racial logics for capital gain. At both representational and material levels, therefore, social media contributes to settler colonialism's eliminatory impulse by further marginalizing Indigenous peoples (Carlson & Frazer, 2020).

Social media cultures and functioning also contribute to colonial power imbalances through spectacular framing of Indigenous peoples and the land. The spectacular finds popularity and virality on social media, which is structured by engagement metrics and algorithmic promotion of popular content. Social media therefore "enables the speed and scope of this cultural spectacle, producing an abundant archive of Indians of the settler imagination" (Grande, 2018, p. 8). Analyzing the popular imagery of Water Protectors at Standing Rock, Quechua scholar Sandy Grande articulates how social media spectacle "becomes the perfect theater for producing anchorless (neoliberal) subjects whose every desire is increasingly structured by

capital" (Grande, 2018, p. 3), according to a "radical reification of self, an overvaluing of the present, and rupturing of relationality" (Grande, 2018, p. 3). Spectacular imagery undermines relationality by rendering Indigenous peoples hyper visible through widely circulated images from the front lines, while removing actual Lakota peoples from sight; hypervisibility thus paradoxically results in invisibility (for a similar assertion, see Baloy, 2016). In the context of a colonial pipeline controversy such as the Dakota Access (or the Trans Mountain, by extension), spectacularized representations of Indigenous peoples as "ecologically noble savages" (Redford, 1990) activate settler fantasies of a time before the environmental degradation associated with such extractive projects, while simultaneously naturalizing settler supremacy over and against this lost and lamented past. While Grande focuses on spectacular imagery of Indigenous peoples specifically, by extension, spectacularized imagery of the land on social media may similarly externalize and commodify the natural world according to colonial impulses. Ultimately, such representations normalize trajectories of industrial development, justify current extractive projects, and "[work] to consolidate whiteness and secure settler futurity" (Grande, 2018, p. 3). So, while social media from the front lines of pipeline resistance may provide alternatives to mainstream media messaging, the inherently spectacular nature of social media posts and viral sharing may in fact reinforce the very colonial project this media attempts to undermine.

At the same time, social media is used for resistant and resurgent purposes within settler colonial contexts through efforts to narrate, represent, discuss, and connect "otherwise." Social media is not a clear-cut space, but "relations between Indigenous and settler colonizer populations are [both] reproduced and reimagined through the connections made possible through social media" (Carlson & Frazer, 2020, p. 3). As evident through Idle No More, digital media has contributed to the reconfiguration of relations by enabling connection across Canada's vast geographic spaces and drawing indigeneity into settler social space (Barker, 2015), as well as by cultivating solidarity in the face of the injustices of settler colonialism (Duarte, 2017b, p. 1). Hashtag activism is particularly powerful according to its "actionable capacity," which affords "communication between diverse land and water defenders [and] points to a mutual experience—a shared language of the senses—cohering and emerging among diverse geographically widespread actively-decolonizing peoples" (Duarte & Vigil-Hayes, 2017, p. 180). Social media has also been key for truth-telling and attracting allied support, as hashtags such as #noDAPL, #mniwiconi, #waterislife, and #standwithstandingrock have connected Indigenous

and non-Indigenous peoples through knowledge of the injustices at Standing Rock. Despite being "a tool of the colonizer, [social media has become] a tool adapted as a non-violent weapon of truth and visibility for frontline warriors" (Lane, 2018, p. 208), providing initial foundations for solidarity and the building of social movements (Duarte, 2017b; Duarte & Vigil-Hayes, 2017), including at the sites of resource extraction and transportation.

In addition to supporting resistance and solidarity-building, social media has been a space for Indigenous refusal of colonial recognition (Carlson & Berglund, 2021; Coulthard, 2014; Martineau & Ritskes, 2014; Palacios, 2016; A. Simpson, 2014) and resurgent self-representation (McLean et al., 2017). Complex and contradictory, social media enables Indigenous people to variably represent themselves on the land, in traditional regalia or modern attire, and with friends and families, through both bodily and discursive resistance to popular media representations (Baldy, 2016, p. 92) and the broader eliminatory project of settler colonialism (Carlson & Frazer, 2020, p. 4). At the same time, these very posts may be mediated by an awareness of the "settler gaze" (Carlson & Frazer, 2020, p. 2) and the potential of being observed in bad faith (Baldy, 2016). In response to the settler gaze, resurgent media practices

> [refuse] such naming premised on recognition, visibility, and inclusion. Instead of turning toward the carceral state for answers on how to dismantle hetero- patriarchal, racialized violence, they consciously turn *away* from it— privileging instead the lure of belonging to a community dedicated to individual and collective *self*-recognition (as opposed to *state* recognition). (Palacios, 2016, pp. 50–51)

Such refusal has both representational and material elements. On the one hand, "outlaw discourses" generated by marginalized communities use "their radically disjunctive and counterintuitive logics to dismember dominant understandings of social justice and value" (Palacios, 2016, p. 39), as well as to activate a "fugitive aesthetic" oriented towards freedom and alternatives to the colonial order (Martineau & Ritskes, 2014). Media activism also extends beyond the representational realm to shift the fundamental ways "media engage and create culture, representation, meaning, and structural, symbolic violence" (Palacios, 2016, p. 40), developing the communicative capacity of marginalized communities and digital infrastructures to support community needs (Duarte, 2017a). Refusal and resurgence is thus linked with broader decolonial aims: "Indigenous sovereignty movements whose aims are to bring about the repatriation of Indigenous lands and resurgence of Indigenous life are reestablishing themselves

as truly self- determining, that is, as the creators of the terms and values of their own recognition" (Palacios, 2016, p. 40). Digital life and life on the land are intermingled.

The complexity of how settler colonialism interacts in social media necessitates nuanced analysis of the ways Instagram's public pedagogy takes up, resists, or refuses colonial media representations as publics engage with the Trans Mountain issue in accordance with the specificities of the platform. An investigation of Instagram's public pedagogy therefore focuses not only on the Trans Mountain issue and its interrelated ecological, economic, social, and political elements, but also how public pedagogy uniquely takes shape on Instagram as a particular platform also implicated in a colonial and capitalist mediascape.

Public Pedagogy

The use of media for justifying colonial violence to the land and perpetuating Indigenous dispossession – along with the uptake of social media for refusal, solidarity, and resurgent self-expression in the face of colonial violence – warrants particular attentiveness to the pedagogical functioning of social media from an anti-colonial standpoint. Public posts about the Trans Mountain pipeline may be understood as a particular expression of public pedagogy, as settler colonialism is reinforced and contested in relation to the issue through the visual, textual, and connective tools of the platform. As a concept, public pedagogy draws attention to the educative force of cultural forms like social media, which have the potential to reinforce or undermine mainstream thought. Particularly salient to an anti-colonial analysis are those conceptions of public pedagogy that recognize the subversive potential of cultural expressions rather than assuming that culture necessarily perpetuates dominant discourses and norms, such as those aligned with settler colonialism. With the rise of networked media, it is a vital time to be researching public pedagogy, as

> the shift from spaces that are governed by institutional metaphors and hierarchies to spaces in which education and learning take on more performative, improvisational, subtle, and hidden representations potentially calls for researchers and theorists to examine their methods, epistemological and ontological assumptions, and language to avoid the synecdochical association of education as schooling. (Sandlin, O'Malley, & Burdick, 2011, p. 362; see also Burdick, Sandlin, & O'Malley, 2013, p. 7; Gaztambide-Fernández & Matute, 2013, p. 55)

Considering public pedagogy research on social media is only emergent, often more theoretical than empirical, and the field more broadly tends to explore cultural transmission rather than subversion (Sandlin, O'Malley, & Burdick, 2011, p. 359; see also Burdick, Sandlin, & O'Malley, 2013, p. 3), I thus engage with current critiques of public pedagogy scholarship even as I draw on its strengths in analyzing the pedagogical functioning of Instagram.

This section therefore provides an entry into public pedagogy research, honing in on theories that legitimate agency and resistance in cultural production, and theorizing the counterhegemonic possibilities of public pedagogy, towards the anti-colonial analysis central to this project. Next, I provide a review of research on the public pedagogical functioning of social media, finding a nuanced middle ground between utopic and dystopic perspectives of social media use. As there is little public pedagogy research on social media, I then turn to related fields of media and communications studies, as well as of digital research, in order to consider knowledge creation on social media, drawing connections to how this might inform an understanding of public pedagogy online. Finally, I turn to the "public" of public pedagogy, reviewing multiple theories of publics that might better inform my research than a Habermasian notion of a singular public sphere. In addressing multiple publics and counterpublics online, I thus conclude where I began, by exploring the anti-colonial potential of public pedagogy online.

Public pedagogy overview.

The concept of public pedagogy has been helpful in legitimating pedagogical processes outside of schools in the greater cultural realm, emphasizing the need to explore the "often hidden dynamics of social and cultural reproduction" (Giroux, 2004a, p. 63). Focusing on cultural sites from film to art, media to architecture, it is

> part of a larger attempt to explain how learning takes place outside of schools or what it means to assess the political significance of understanding the broader educational force of culture in the new age of media technology, multimedia, and computer-based information and communication networks. (Giroux, 2004a, p. 60)

In keeping with anti-colonial analysis, key for the study of public pedagogy is to "[question] the conditions under which knowledge is produced, values affirmed, affective investments engaged, and subject positions put into place, negotiated, taken up, or refused" (Giroux, 2004a, p. 63). The sites of everyday life become spaces for critical inquiry, particularly as they shape key discourses, agencies, and relations between private life and public concerns, where "inquiry

emphasizes both the socially reproductive and the resistant dimensions of these various pedagogical sites" (Sandlin et al., 2011, p. 339). The "political and the educational dimension come together in the idea of 'public pedagogy'" (Biesta, 2012, p. 684) in order to challenge the circulation of hegemonic knowledge within cultural sites and practices. Here, critical inquiry takes place at the sites "where people actually live their lives and where meaning is produced, assumed, and contested . . . public pedagogy in this context becomes a part of a critical practice designed to understand the social context of everyday life as lived relations of power" (Giroux, 2000, p. 335).

In their overview of the field, which involves an integrative literature review of 420 pieces on public pedagogy, Sandlin, O'Malley, and Burdick (2011) identify "five primary categories of extant public pedagogy research: (a) citizenship within and beyond schools, (b) popular culture and everyday life, (c) informal institutions and public spaces, (d) dominant cultural discourses, and (e) public intellectualism and social activism" (Sandlin et al., 2011, p. 338). Of these, my primary concerns are with popular culture, dominant discourses, and performative social activism, as I "critically investigate public and popular culture spaces for their pedagogical aspects and for the ways these spaces reproduce or challenge commonsensical and oppressive configurations of reality" (Sandlin et al., 2011, p. 343). Examining posts about the Trans Mountain pipeline, I am particularly concerned with dominant settler colonial discourses, including how these "ascribe and reinforce specific forms of citizenship as well as reproduce individual and collective identities… (re)producing epistemological and ontological boundaries on cultural life" (Sandlin et al., 2011, p. 351). However, rather than exploring the role of formal education or even of public pedagogues in "developing counterdiscursive strategies and critical pedagogical interventions" (Sandlin et al., 2011, p. 351), my research addresses the gap identified by the authors in conducting empirical inquiry into the processes of counterpublic formation and resistant, extrainstitutional mechanisms of learning. I therefore examine the connective intellectual work of networked publics in countering colonial processes via public pedagogy on social media.

Public pedagogy and agency.

In theorizing public pedagogy, Giroux (2000, 2004a, 2004b) influentially focuses on the central role of culture in "producing narratives, metaphors, and images that exercise a powerful pedagogical force over how people think of themselves and their relationship to others" (Giroux,

2004a, p. 63). Though he recognizes the performative and thus fluid functioning of culture, Giroux's theory of public pedagogy tends to treat culture as a singular

> public space where common matters, shared solidarities, and public engagements provide the fundamental elements of democracy. Culture is also the pedagogical and political ground in which shared solidarities and a global public sphere can be imagined as a condition of democratic possibilities. Culture as a site of struggle offers a common space in which to address the radical demand of a pedagogy that allows critical discourse to confront the inequities of power and promote the possibilities of shared dialogue and democratic transformation. (Giroux, 2004b, p. 499)

This singularized notion of culture is echoed in the literature, where "culture as pedagogy is enacted through the ways in which it represents otherness, deploys power, and produces categories" (Burdick & Sandlin, 2013, p. 150) that impact subject development. Much public pedagogical research thus explores in various ways how culture "offers both the symbolic and material resources as well as the context and content for the negotiation of knowledge and skills" (Giroux, 2000, p. 353) and functions as "a substantive and epistemological force…a site where identities are continually being transformed and power enacted" (Giroux, 2000, p. 354). In a mainstream neoliberal culture experiencing the erosion of democracy via a culture of individualization and privatization, Giroux (2004) calls for dialogue, cultural critique, and public engagement to address these cultural forces; by extension, an anti-colonial critique could similarly engage the violent forces and processes inherent to settler colonialism.

While such cultural analysis is certainly helpful in exploring the hegemonic functioning of dominant cultural expressions, it also homogenizes a singular public, as I describe below, and undermines possibilities for agency and resistance. In his early work, Giroux (2000) conceptualizes culture as a "social field where power repeatedly mutates, where identities are in transit, and where agency is often located where it is least acknowledged. Agency in this discourse is neither prefigured nor always in place but is subject to negotiation" (Giroux, 2000, p. 353). In contrast with this fluid notion of power, however, Savage (2010) notes in much of the literature – including Giroux's – a tendency to "imagine authoritarian-style public or cultural pedagogies projecting scorchingly into our lives from white-hot loci of domineering power; visions which may serve to conceal rather than enlighten our understandings of complex power and pedagogic relations" (Savage, 2010, p. 109). Similarly, Biesta (2012) summarizes how the

"idea of public pedagogy is predominantly used as an analytical concept aimed at theorising and investigating the educative 'force' of media, popular culture and society at large" (Biesta, 2012, p. 691). Here, public pedagogy functions as a form of "knowledge transfer," where culture is understood to be "engaged in a constant, active – albeit potentially subtle – pedagogical process of its own reproduction" (Burdick & Sandlin, 2013, p. 148). Dominant culture is posited as so prescriptive and impactful that little space remains for counterhegemonic possibilities, as well as for both individual and collective agency. Instead, the dominant didactic model places authority in the hands of critical pedagogues, who are presumed to "stand outside the effects of dominant public pedagogy" (Savage, 2010; see also Burdick & Sandlin, 2013; Kellner & Kim, 2010), holding the tools necessary to deconstruct the hegemonic functioning of culture from within formal education spaces:

> readers are thus shown how forms of public pedagogy devastate and corrupt their lives with irrationality, but thankfully, with recourse to the tenets of rationality, reason and democracy, the tools of critical pedagogy offer a way out. This is not only a self-fulfilling prophecy, but also represents another false binary, this time between "the popular" and "formal education." (Savage, 2010, p. 111)

In so denying the uneven flows of power, including the "competing, disparate, and diverse pedagogies, knowledges, powers, and interests, which circulate through fractured and fuzzy-bordered communities, networks, and associations" (Savage, 2010, p. 112), public pedagogy thus risks reducing culture to a binary of oppressive/emancipatory, rather than recognizing how pedagogies may be "dynamic, dialectical, political, and bound up with power in chaotic ways" (Savage, 2010, p. 133). In relation to settler colonialism, this vision also problematically centers critique within the colonial institution of the university, denying the resistant and resurgent anti-colonial efforts taking place outside colonial institutions, including through social media as described above. Particularly considering the distributed nature of networked media, as well as differential responses to settler colonialism, it is necessary to move beyond a unitary understanding of culture.

Opening space for anti-colonial analysis of public pedagogy are scholars who recognize resistant forms of public pedagogy beyond and against the hegemony of dominant culture, including "how multifarious 'publics' might operate as pedagogical agents" (Sandlin et al., 2010, p. 4). Most notably, feminist scholars "have carefully extended the possibilities of the public

intellectual into other decentered, extrainstitutional, communal, and grassroots configurations" (Denith et al., 2013, p. 27; see also Luke, 1996; St. Pierre, 2000). While aware of the hegemony of cultural reproduction via media representations, Denith, O'Malley, and Brady (2013) assert that

> media localities also carry the potential to serve as pathways for liberatory discourses and the (re)creation among women and other marginalized populations of collective identities oriented toward activism for justice. Requiring critical examination of daily experience and the complex interactions of government, media, and popular culture, public pedagogy creates sites of struggle in which images, discourses, canonical themes, and commonly accepted understandings of reality are disputed. (Denith et al., 2013, p. 37)

In this vein, various scholarship collected in Sandlin, Schultz, and Burdick's *Handbook of Public Pedagogy* (2010) explore "popular culture's critical and counterhegemonic possibilities, focusing on the uses of popular culture as a potential site for social justice, cultural critique, and reimagined possibilities for democratic living" (Sandlin et al., 2010, p. 3). A common site of exploration of resistant pedagogies focuses on art and aesthetic expression (Burdick & Sandlin, 2013). More recently, however, with the proliferation of digital media, including as the COVID-19 pandemic has shut down much on-the-ground learning and resistance, "collective struggles and networks are generating new pedagogical practices of resistance through the use of new media such as the Internet and digital video to challenge official pedagogies" (Giroux, 2004a, p. 65). In this instance, resistance

> is not limited to sectarian forms of identity politics, but functions more like a network of struggles that affirms particular issues and also provides a common ground in which various groups can develop alliances and link specific interests to broader democratic projects, strategies, and tactics. (Giroux, 2004a, p. 65)

These examples lead into Biesta's (2012) idea that public pedagogy is more than "simply a way to analyze the socializing 'force' of society, but… an active and deliberate intervention in the 'public' domain" (Biesta, 2012, p. 691), with an ear to "questions about citizenship, democracy, and the public sphere" (p. 691). It is these kinds of ideas I consider in relation to the public pedagogy of networked media, particularly as multiple publics take up dominant settler colonial discourses over Instagram in both mainstream and subversive ways.

Networked Media as a Site of Counterhegemonic Public Pedagogy

In relation to the larger field of public pedagogy, there is still much work to be done to explore the public pedagogical functioning of social media, though many are calling for and beginning to undertake such research (R. Freishtat, 2010; R. L. Freishtat & Sandlin, 2010; Giroux, 2004a, 2011; Kellner & Kim, 2010; Reid, 2010; Rich & Miah, 2014). Social media functions differently from other cultural expressions, necessitating attention to the pedagogical processes particular to various social media platforms, including the potential for resistant expression. Critiquing public pedagogy research more generally, Savage (2010) draws attention to the need for more specificity in defining pedagogical processes:

> What makes something educative or pedagogic in nature? Isn't everything educative? Or is it? And most importantly: What distinguishes the "pedagogy" in public pedagogy from traditional accounts of socialization or interpellation and the old saying that "ideology is everywhere" thus all ideology is educative? (Savage, 2010, p. 107)

He thus recommends focusing on specific forms of pedagogy in specific sites as there are indeed, "in a pluralized sense, *pedagogies*" (Savage, 2010, p. 108). Similarly, Sandlin, O'Malley, and Burdick (2011) "argue that more work needs to be conducted investigating *how* the various sites, spaces, products, and places identified as public pedagogy actually operate as *pedagogy*" (Sandlin et al., 2011, p. 359), including specifically "*how these educational sites and practices actually work to teach the public* and *how the intended educational meanings of public pedagogies are internalized, reconfigured, and mobilized by public citizens*" (Sandlin et al., 2011, p. 359). Rich and Miah (2014) echo these critiques in relation to social media, identifying how platforms are being studied via a number of disciplines, including "philosophy, surveillance studies, social sciences, cyberstudies, new media studies" (Rich & Miah, 2014, p. 300), but these fields "have not framed the relationship [between technonolgies and users] as one of learning or pedagogy" (Rich & Miah, 2014, p. 300). Technologically mediated spaces more generally are still little understood "in terms of their ideological and social structure along with the implications of their control" (R. L. Freishtat & Sandlin, 2010, p. 508); by extension, the same is true of social media more specifically, which is an even more recent phenomenon in its development and reach. Particularly critical for my study is the fact that "little research has been carried out when it comes to considering the educational values and implications of social media in formal and informal settings (cf. Davies et al. 2012) and not least when it comes to stressing

the relationship between political participation, social media and education" (Andersson & Olson, 2014, p. 115). Certainly, settler colonialism has not yet been traced within social media pedagogies, warranting particular attention to how platforms interact with colonial processes. By attending to the specificity of public pedagogy of Instagram from an anti-colonial standpoint, at a time when social media use is proliferating in conflicts over land use and is augmented by pandemic lockdowns, my work responds to critiques about the generality of public pedagogy research while extending the concept into an understudied area.

Initial public pedagogy research tends to take either a dystopic or utopic approach to social media. Neither neutral nor apolitical, technologically mediated sites such as social media "have prompted a radical shift in the production of knowledge and the ways in which it is received and consumed" (Giroux, 2004a, p. 67), requiring deeper engagement with the "production, reception, and situated use of new technologies, popular texts, and diverse forms of visual culture, including how they structure social relations, values, particular notions of community, the future, and varied definitions of the self and others" (Giroux, 2004a, p. 67). Some scholars trace the hegemonic functioning of power in social media, conceptualizing learning as a prescriptive and limiting process of knowledge transfer through a "conventional pedagogical relationship…between individual learners and institutions that deliver and manage pedagogical experiences" (Reid, 2010, p. 197). In fact, many "classic accounts posit media technologies as agencies of repressive socialization (or more bluntly, forms of capitalist brainwashing), which placate individuals through containing and castrating their potential for critical thinking" (Savage, 2010, p. 108). As an example, Freishtat (2010) explores what he calls the "habitus" of Facebook, where the "rhetorical strategies used to normalize and/or celebrate [the platform's] rhetorical vision…act to stifle, trivialize, and ultimately discipline dissent" (R. Freishtat, 2010, p. 201). In line with the perspective of many scholars of public pedagogy described above, dystopic conceptions of social media stress the intervention of formal education to counter the hegemonic effects of social media, which are shown to "exhibit silliness, self-indulgence, or worse. This is why critical pedagogy has to intervene to encourage individuals to make active use of UT as a means of sociopolitical change since transformative uses of technologies require a clear educational and progressive vision" (Kellner & Kim, 2010, p. 30).

In direct contrast are less prevalent utopic views of social media for public pedagogy. Though they do temper their analysis with recognition of the profit models shaping platform

functioning and how many social media expressions "(re)produce the cultural hegemony of the status quo" (Kellner & Kim, 2010, p. 26), Kellner and Kim praise the Internet for providing

> individuals today with a whole new pedagogical setting: decentralized and interactive communication, a participatory model of pedagogy, and an expanded flow of information, thus comprising a new field for the conjuncture of education and democracy. This technological development has amplified individuals' voluntary participation in mutual education through proliferating new voices and visions, making possible the democratization of knowledge and learning in their daily lives. (Kellner & Kim, 2010, p. 15)

They laud capabilities of social media for enabling lifelong learning, connecting people across the planet in ways that were previously impossible, and providing means for marginalized people to vocalize opinion and mobilize resistance.

Beyond the simplistic dystopic and utopic perspectives presented above, there is increased recognition of the need to develop nuanced understandings of knowledge creation via networked and participatory media that recognize "the political economy of the media and technology, their imbrications in the dominant social and political system, and the ways that media and technology generate social reproduction and can be part of an apparatus of social domination" (Kellner & Kim, 2010, p. 6) – but also their "pedagogic potential for grassroots democracy and social transformation" (Kellner & Kim, 2010, p. 14). As Giroux expresses, there is no denial of social media's "relentless ability to colonize and commodify all aspects of everyday life" (Giroux, 2011, p. 20) through its dominance by "state oppression, marketing tactics, and corporate-driven policies and practices" (Giroux, 2011, p. 23), which have only intensified under "surveillance capitalism" (Zuboff, 2020) or "big data capitalism" (Chandler & Fuchs, 2019), as described below. Further, one cannot ignore the production of "endless bouts of naval gazing, bullying, and a relentless stream of self-promoting narratives that range from the trivial and boring to the obscene" (Giroux, 2011, p. 21). Despite these problems, however, Giroux recognizes that

> new media can be appropriated to challenge neoliberal modes of commodification, privatization, and anti-intellectualism. And as formative critical cultures develop, the new media offer opportunities to become not only a progressive force for democracy but also

> one of the primary educational tools for making it possible to sustain such progress. (Giroux, 2011, p. 25)

Research that presents nuanced understandings of power and social media's pedagogical potential, however, is only emergent, and it has yet to explore the explicitly colonial elements of social media pedagogies. As one example, Kellner & Kim (2010) trace the emancipatory possibilities of YouTube as a space of critical pedagogy despite the platform's functioning within a profit model. Through a qualitative study of video dialogues, they explore how "marginalized people deploy new media technologies to construct and publish their political agendas and can thus involve themselves in grassroots, participatory democracy by political agenda-setting, mobilization of supporters, and fighting for transformation of social conditions in their everyday lives" (Kellner & Kim, 2010, p. 12). In a similar vein, Hickey-Moody, Rasmussen, and Harwood (2008) trace how an online forum called *The Sofa* offers "something which traditional pedagogical settings do not: … a virtual space in which members have the opportunity to perform and construct lesbian identities" (Hickey Moody et al., 2008, p. 7). At the same time, *The Sofa* functions within an economic model that limits participation to paid subscribers and tends to reinforce mainstream gender regulations on discussion boards. The platform thus reveals how "contradictory pedagogies are embedded in lived cultures that cannot be situated outside hegemonic regulations of gender and sexual identity" (Hickey Moody et al., 2008, p. 16) yet can simultaneously resist these regulations. Finally, though it is in the field of informal learning not public pedagogy, Gleason's (2013) study of Occupy (#ows) suggests that Twitter supports multiple opportunities for participatory learning by "creating, tagging, and sharing content to reading, watching, and following a hashtag—which may facilitate learners becoming more informed, engaged citizens" (Gleason, 2013, p. 966). Though Twitter literacy is required for learning, such platform features "may support informal learning about a particular topic by facilitating intertextual reading that exposes the learner to a number of different perspectives in multiple modalities, including text, video, audio, and image" (Gleason, 2013, p. 978). While these studies provide three more nuanced examples of knowledge production on social media, there is further research to be done in this area, including towards an understanding of how settler colonialism intersects in this public pedagogical space.

Knowledge production and communication on social media.

As there is yet little research on social media's public pedagogy, it is key to look at other fields in order to trace how knowledge production and communication on social media is currently understood, laying crucial groundwork for an anti-colonial analysis of Instagram. Particularly pertinent to my study of public pedagogy are current articulations regarding the hegemonic restrictions of social media according to extractive capitalist logics inherent to social media platforms that transform participation into data to benefit of powerful corporations like Meta (which owns Instagram), while increasingly controlling the behaviors of participant social media users. At the same time, social media paradoxically hosts the participatory creation and circulation of resistant and anti-colonial discourses, affects, actions, and networks. I thus turn to media and communications studies and other fields of digital research to inform understanding of the functioning of social media as a conflictual space of controlled extraction and networked creativity with anti-colonial potential (and restrictions) to address an issue like the Trans Mountain. To conclude, I provide an overview of the functioning of platforms themselves and how this contributes to their pedagogical capabilities, legitimating the materiality of the medium and the embeddedness of social media platforms in larger media, corporate, and cultural ecologies.

By design, social media is structured to datafy human behavior for the purposes of capitalist capture and control, creating significant tensions for a study of resistant and anti-colonial public pedagogy on Instagram. Reflecting on the role of social media in Indigenous feminist organizing, Anishinaabe scholar Leanne Simpson (2017) expresses skepticism of "simulations that serve only to amplify capitalism, misogyny, trans-phobia, anti-queerness, and white supremacy and create further dependencies on settler colonialism" (p. 221; qtd. in Duarte, 2017, p. 95). Certainly, critiques of social media as a capitalist and colonial project are mounting. Tracing the emergence and subsequent development of digital platforms like Google and Facebook, Zuboff (2020) asserts that social media have ushered in a new form of "surveillance capitalism," which follows extractive logics whereby "information and connection are ransomed for the lucrative behavioral data that fund… immense growth and profits" (p. 54). Under this relatively new process, extractive methods of capital accumulation are hidden in plain sight, whereby social media platforms understood to be necessary to social participation are in fact tools of exploitation and social control. Similarly, Fuchs (Chandler & Fuchs, 2019; Fuchs,

2018b) articulates the processes whereby "big data capitalism" transforms and objectifies online actions (such as posting to Instagram) into "fixed constant capital," which is stored on massive servers, serving capital accumulation and state control, while requiring climate-harming excesses of energy (Chandler & Fuchs, 2019, p. 129). Similar to Zuboff, Fuchs emphasizes that digital participation – understood as labour, in extension of a Marxist configuration of capitalism – is both encouraged by and contributes to capitalist powers, who will most benefit by ongoing and increasing digital participation. Asserting that not all data is linked with labour, and indeed that current data capture and extraction could potentially lead to still further expressions of capitalism (beyond, for instance, surveillance capitalism), Couldry and Meijas (2019, 2020) argue that a platform such as Instagram "*produces* the social for capital, that is, a form of 'social' that is ready for appropriation and exploitation for value as data" (Couldry & Mejias, 2019, p. 4), through a process of "data colonialism" that appropriates not only labour but all of life, including bodies, things, and systems (Couldry & Mejias, 2019, p. 12). In keeping with other forms of colonialism, data colonialism relies on ideologies that construe data as "raw materials" with inherent value as resources for exploitation, through a process that both constructs and appropriates life for capital. Data colonialism leads to layers of uneven social transformation through behavioral control, the rise of data-driven decision-making and management, and self-data collection for various contractual requirements, all which show evidence of new forms of discrimination and inequality. Considering the inherently surveillant, extractive, and colonial nature of social media platforms under these new forms of digital capitalism, resistant participation on social media is antagonistic as a means to both domination and liberation. While exploring the nature of Instagram's public pedagogy, therefore, analysis must attend to these inherent frictions, including the ways the Instagram platform structures participation for its own gain even as it is taken up for resistance and creativity.

Despite these significant tensions, the participatory nature of social media tests hierarchies and gatekeeping in knowledge production (Elmer et al., 2012; Rambukkana, 2015), enabling new forms of networked creativity and space for both public resistance to and reinforcement of dominant relations, such as those under settler colonialism. Through "commons-based peer production" (Papadimitropoulos, 2018), like the information sharing and cultural production on Instagram, digital expression and creativity manifest outside of market relations through a "collective process of knowledge sharing and learning" (Papadimitropoulos,

2018, p. 843) that bypasses capitalist processes and decentralizes authority. Scholars concerned with knowledge production in networked media emphasize the disruptive "centrality of collaborative making and sharing in a social media environment in which the media are no longer just what we watch, read, or listen to – the media are now what we *do*" (Meikle, 2014, p. 374). While previous forms of broadcast media focused on enclosing and clarifying a message and its flow to audiences, participatory social media networks allow for an open-ended, multi-directional, "multimodal exchange of interactive messages from many to many both synchronous and asynchronous" (Castells, 2007, p. 246). In this way, "contemporary networked media is an information geography that affords a multiplicity of sites, spaces and routes" (Elmer et al., 2012, p. 6) through which users are encouraged to build content, create ties with other users, and engage in discussion on public issues. Here, there are no longer clear distinctions been "producers and consumers, nor between authors and audience" (Boler, 2008, p. 7; see also Dennis, 2018, p. 39; Elmer et al., 2012, p. 6) or "between domain specialists and laypersons… between ordinary citizens and their political representatives" (Burgess et al., 2015, p. 74; see also Poell & Borra, 2012, p. 698). Instead, on networked platforms such as Twitter, "layers of agency… are networked, complex, and diffused" (Papacharissi & de Fatima Oliveira, 2012, p. 279), as events and issues are represented through "decisions [that] are collaboratively and organically made through practices of repetition and redaction that do not always produce a coherent narrative" (Papacharissi & de Fatima Oliveira, 2012, p. 279). With creativity and agency thus distributed and networked, the concept of a "public pedagogue" common to much public pedagogical scholarship moves out of the institution and into networked platforms: here, there is potential for every user to be a public pedagogue, with potential to reinforce, interrupt, contest, or bypass settler colonialism.

Communication within this networked space engages a multiplicity of genres, forms, sources, and means of engagement. Unlike mainstream media, social media is therefore conceptualized as a "hybrid forum," containing a "convergence of everyday, interpersonal and public communication" (Burgess et al., 2015, p. 64). Social media may thus host a mix of "official government information, live documentation of street protests, memes drawing on popular culture, and everyday snapshots playing an equal part in the public communication around a controversial topic" (Burgess et al., 2015, p. 64) such as the Trans Mountain pipeline. With such distinctions blurred, we are now "pressed to describe not only new subjective

formations but new theories of how power, discourse, and poesis circulate in relation to the combinatory function and apparatus of digital distribution" (Boler, 2008, p. 7). The concern here is not how social media may utopically work to

> "fix" a broken system of public-sphere communication, but rather to "unfix" staid communication patterns, to refigure the public conversation about important issues and topics (such as inequality, racism, sexism, and abuses of power) with a view to cracking open stable systems of meaning making, and working… to *build* better communication across and between cultural and subcultural spaces. (Rambukkana, 2015, p. 32)

In place of public pedagogy theories that focus on the hegemonic functioning of power through culture, therefore, the participatory nature of social media demands a more fluid conception of power. Here, social media users may be conceived as pedagogical agents rather than mere receptors of settler colonial cultural norms and messaging, leveraging platform components for their own aims.

As pedagogical agents, social media users are therefore able to disrupt the mainstream in ways that were previously not possible. As articulated in relation to colonial media above, the effects of mainstream media on discursive possibilities are profound: "what does not exist in the media does not exist in the public mind, even if it could have a fragmented presence in individual minds" (Castells, 2007, p. 241). With the dispersion of power through hybridized media, by contrast, users may create and circulate their own meanings by "appropriating social media as a tool to articulate a counter narrative and to contest selective or dismissive framing by mainstream media" (Callison & Hermida, 2015, p. 697), taking opportunities "to disrupt and influence the framing of an agenda, issue, or event" (Dennis, 2018, p. 40). Social media, therefore, holds some anti-colonial potential despite its contradictory position with a larger colonial-capitalist digital economy. Some forms of online expression may subvert the mainstream through humor or subtlety. Other expressions may be articulated by loud and angry publics, by "subjects in precarious circumstances, such as immigrants, refugees, sessional workers, [who] are often barred from expressing legitimate anger and are even forced to perform a kind of 'coercive happiness' in order to receive or retain access to common resources" (Rambukkana, 2015, p. 36). Resistant expressions may therefore be strongly affective, requiring attentiveness to "how processes of learning, social change, and education are intimately bound up with feeling" (Boler, 2015b, p. 1491). For anti-colonial public pedagogical research online, therefore, it is key to

consider how feeling may be seen as a "legitimate source of knowledge alongside more favored educational comportments like logic, reason, and rationality" (Boler, 2015b, p. 1491). Via various expressions of marginalized and resistant discourses, social media thus provides new pathways for truth to emerge (Boler, 2008) and for change to be performed and enacted (Boler, 2015a, p. 539), legitimizing further research in public pedagogy. Of course, just as social media platforms enable resistant expression, so are they a "forum to reproduce power relations and hierarchies or amplify racism" (Matamoros-Fernández, 2017, p. 933) and other forms of injustice, making them "tools for both prosocial and antisocial uses" (Matamoros-Fernández, 2017, p. 933). In studying the public pedagogical functioning of social media, therefore, it is key to examine both dissent and re-inscription of settler colonialism in exploring posts about the pipeline.

Research on the appropriation of social media for resistant expression abounds in diverse arenas. It is explored in relation to alternative journalism, including documentation of state-sanctioned violence (Bergie & Hodson, 2015; Bonilla & Rosa, 2015; Bruns, 2006; Papacharissi & de Fatima Oliveira, 2012; Poell & Borra, 2012) and the representation of marginalized and racialized identities through mediatized spaces such as #BlackTwitter (Bonilla & Rosa, 2015; Brock, 2012; Florini, 2014; Graham & Smith, 2016; Sharma, 2013). It is also researched for its role in movements, protests, and organizing (DeLuca et al., 2012; Mortensen et al., 2018; Segerberg & Bennett, 2011; Tufekci & Wilson, 2012; Valenzuela, 2013), including in Indigenous movements specifically (Carlson & Berglund, 2021). Dissent, it seems, is part and parcel of life online. Some of these studies conduct instrumentalist analyses that attempt to connect social media participation to offline political outcomes through critiques of "armchair activism" or "slacktivism" (Dennis, 2018). Such scholarship critiques social media for being a poor space for rational debate within an online "public sphere" (Bergie & Hodson, 2015; Knezevic et al., 2018). Absent of rational debate, the distributive nature of social media is critiqued for leading to a "multiplication of resistances and assertions so extensive…[that it] hinders the formation of strong counterhegemonies" (Boler, 2008, p. 20; see also Dean, 2005) and prevents meaningful action. Here, online messages are diminutively seen within a structure of "communicative capitalism" as

> simply part of a circulating data stream. Its particular content is irrelevant. Who sent it is irrelevant. Who receives it is irrelevant. That it need be responded to is irrelevant. The

> only thing that is relevant is circulation, the addition to the pool. Any particular contribution remains secondary to the fact of circulation. The value of any particular contribution is likewise inversely proportionate to the openness, inclusivity or extent of a circulating data stream – the more opinions or comments that are out there, the less of an impact any one given one might make (and the more shock, spectacle or newness is necessary for a contribution to register or have an impact). In sum, communication functions symptomatically to produce its own negation. (Dean, 2005, p. 58)

Within a system of communicative capitalism, Dean asserts that what appears to be democratic access, inclusion, and participation online do not lead to equity but instead function to undermine efficacy for most people through the marketization and spectacle of online communication. While these critiques are relevant, I propose that in drawing a direct line between online discourse and action, such scholarship denies the pedagogical potential of social media and the nuanced, non-linear connections between discourse and action. By framing meaningful engagement solely within either an action frame or a debate frame, where social media falls short of immediately "[challenging] the fundamental social and economic order" (Knezevic et al., 2018, p. 434), we remove possibility for a more nuanced analysis of social media's counterhegemonic possibilities in focusing too much on direct and instrumental outcomes (Dennis, 2018). Consequently, we may lose sight of social media's potential through participatory and resistant forms of public pedagogy. I therefore follow scholarship that focuses on learning and resistance on social media towards various anti-colonial possibilities, regardless of offline effects such as the halting of the Trans Mountain pipeline or the attendance at a particular protest.

Public pedagogy and platforms.

At the same time, it is key to recognize the contradictory nature of social media, where resistance interacts not only with mainstream discourses but also platform affordances that are not in fact neutral but ideological in nature, encoded with particular uses and users and shaped in relation to dominant formations like settler colonialism and capitalism, as articulated above. As new media are structured to collect data for capitalist purposes, they "do not tell us what to think or do, but they do shape what we think with" (Shaw, 2017, p. 596), according to the affordances available. While platform affordances may direct user activity in particular ways, Shaw draws on Stuart Hall's conception of encoding/decoding to articulate how users might adhere to

perceptible affordances, imagine new ones, repurpose what is available, or leverage hidden affordances (Shaw, 2017, p. 598). User practices might be viewed as dominant, oppositional, or negotiated, according to the those with the power to define how technologies should be used. In line with public pedagogy scholarship calling for the study of multiple public *pedagogies* (Savage, 2010), therefore, it is key to attend to the affordances and restrictions of particular social media platforms, as these particularities interact in colonial knowledge production and communication in specific ways.

The affordances and constraints of a system impact perception of the issue environment and the ability to respond to it, which inevitably encourages particular courses of action from users. Site-specific design shapes the ways users relate to content and to one another via a multiplicity of means (Elmer et al., 2012; Gillespie, 2010), including the possible visual and textual forms of expression; the visibility, ranking, circulation, and retrieval of content; the means for interaction with other users' content through commenting, liking and sharing; the possibilities for shareability of content across platforms; and the design of the interface itself, which invites and restricts not only forms of use but also particular users, depending on the extent to which they identify with the platform look and feel. In this context, actors "are not just investing a political will into the online world; they also have to submit to, adapt to, and make use of the communicative limits and specific informational logics of social media platforms" (Elmer et al., 2012, p. 48). The nature of social media platforms thus demands recognition of "the uniqueness of social networking sites as assemblages where software processes, patterns of information circulation, communicative practices, social practices, and political contexts are articulated with and redefined by each other" (Elmer et al., 2012, p. 49) – indeed, where platforms and settler colonial relations are mutually informing. These assemblages do not indicate straightforward and predictable use of platform affordances. As Bucher and Helmond (2016) point out, features not only afford particular actions but also hold "multifarious meanings" and communicative possibilities to users. User behavior may even be impacted by how users perceive and imagine algorithmic functioning (Bucher & Helmond, 2016). Finally, user actions in turn affect platform development, which is increasingly responsive and adaptive. Therefore, the study of public pedagogy on social media must engage not only with participation among human actors via cultures of connectivity, but also with the nature of these platforms themselves as they interact in pedagogical processes. My study therefore works directly with the

available tools and affordances of Instagram, including as they intersect with settler colonialism, as a constitutive part of the functioning of public pedagogy on that particular platform.

Further complicating the role of platform affordances in public pedagogy is their ideological nature (Chun, 2005; Elmer et al., 2012; Gillespie, 2010; Matamoros-Fernández, 2017; Nieborg & Poell, 2018). Seemingly benign affordances are in fact connected to mainstream cultures, longstanding mediatized colonial formations, and client and corporate interests, which shape platform dynamics, terms of service, platform surveillance, and algorithmic functioning. So, while "user-driven cultural production is clearly thriving… these platforms represent a centralized, proprietary mode of cultural production" (Nieborg & Poell, 2018, p. 5), serving the "its two pillars of commercialization and corporate concentration" (Nieborg & Poell, 2018, p. 5). Despite the "rhetoric of neutrality" surrounding platform affordances, these are "designed to serve…particular clients and purposes" (Gillespie, 2010, p. 358) through interventions that may be "strategic or incidental, harmful or benign, [but] are deliberate choices that end up shaping the contours of public discourse online" (Gillespie, 2010, p. 358). The Internet, after all, is "also a commodity and a capitalist market place" (Morrow et al., 2015, p. 8), where, despite possibilities for resistance, "attention is structured and ultimately controlled by large technology companies" (Dennis, 2018, p. 195), and the "owners of [these] telecommunication networks are already positioning themselves to control access and traffic in favor of their business partners, and preferred customers" (Castells, 2007, p. 248). Here, as Fisher's (2012) Marxist critique asserts, the ideological construction of social networking sites as spaces for de-alienating self-expression, communication, and collaboration shroud the commodification of online activity and exploitation of digital labour for data gathering and capitalist gain, a process that is both gendered and racialized according to the "assumption that white, male users in the West are bona fide consumers potentially buying many commodities and spending lots of money, whereas others are considered to be inferior customers" (Fuchs, 2018b, p. 697). Actors who are absent from the social media space thus dictate "what can appear, how it is organized, how it is monetized, what can be removed and why, and what the technical architecture allows and prohibits, [making] real and substantive interventions into the contours of public discourse" (Gillespie, 2010, p. 360). In many cases, these interventions are not transparent to the public, yet they produce and certify knowledge in particular ways. As an example, despite their merely automatic or technical appearance, algorithms manage social interaction and

knowledge production online, defining what is trending or relevant; they "not only help us find information, they also provide a means to know what there is to know and how to know it, to participate in social and political discourse, and to familiarize ourselves with the publics in which we participate" (Gillespie, 2014, p. 167). Despite these influences, individual citizens may feel that they are legitimately participating politically, even though their online actions may in fact be "depoliticizing because the form of our involvement ultimately empowers those it is supposed to resist" (Dean, 2005, p. 61), as "technology functions as a fetish covering over our impotence and helping us understand ourselves as active" (Dean, 2005, p. 62). For the purposes of public pedagogy research, it is key to keep in mind not only the impacts of platform corporatization and control on users, along with the intersection of settler colonialism in this space, but also how users may potentially resist these forces through the ways they appropriate platforms, attempt to either game or retrain algorithms, feed back into platform policies or terms of service, and evade surveillance. As Gillespie (2014) describes, the reality of interactions between users and platforms "is more complicated, and more intimate" (Gillespie, 2014, p. 186) than simple cause and effect.

Considering the focus of my research on addressing settler colonialism, it is key to acknowledge the evidence of racist, gendered and colonial expressions within platforms (Matamoros-Fernández, 2017; Nakamura, 2015), which typically mirror mainstream cultural trends. Matamoros-Fernandez (2017), for instance, demonstrates Facebook's "lack of understanding of images of Aboriginality and its tendency to favour Western ideals of free speech" (Matamoros-Fernández, 2017, p. 931) through content curation. Olszanowski (2014) identifies how Instagram's censorship of women's bodies through terms of service and surveillance spurs the creation of resistant visual discourses, as women find ways to "mess" with the platform while still expressing their physicality, forming subaltern communities in opposition to Instagram policies. As with censorship, virality is also dictated according to mainstream culture, where "covert racist arguments towards Indigenous Australians circulated and received large acceptance across platforms, which perpetuates dominant discourses on Australian identity, ideally imagined as white" (Matamoros-Fernández, 2017, p. 941). While issues pertaining to the white majority in settler colonial contexts often go viral and are promoted through algorithms, issues pertinent to the Black community in the United States rarely trend on Twitter (Gillespie,

2014). Emphasizing how technologies embody cultural assumptions and biases, Matamoros-Fernandez (2017) uses the term "platformed racism" to

> (1) [evoke] platforms as tools for amplifying and manufacturing racist discourse both by means of users' appropriations of their affordances and through their design and algorithmic shaping of sociability and (2) [suggest] a mode of governance that might be harmful for some communities, embodied in platforms' vague policies, their moderation of content and their often arbitrary enforcement of rules. (Matamoros-Fernández, 2017, p. 931)

So, while platforms offer space for anti-colonial public pedagogy that enables knowledge production and expression by marginalized publics, they also inhabit and perpetuate the biases of the dominant culture. For the purposes of my study on public pedagogy, it will be key to attend not only to how colonialism is perpetuated via platforms, but also how publics may work to resist colonial framing.

Finally, in a transition to the *publics* of public pedagogy, I briefly attend to the fact that platform affordances inevitably shape the publics that form online. Particular platforms appeal to particular user bases, structuring their publics. Further, digital and social media act as "networking agents…[structuring] relations among different actors, issues, and events" (Segerberg & Bennett, 2011, p. 201). The material processes of communication on social networks set conditions for the boundaries and relationships between actors, a structural quality which Marres refers to as the "influence of the setting" (Marres, 2015, p. 657). Publics are constituted not only by their own expression online, but via the logics of each platform by which they engage one another, including the functioning of algorithms (Gillespie, 2014). Elmer, Langlois, & McKelvey (2012) call this process the "double articulation of code and politics," which is

> the ensemble of processes through which political actors and interests mobilize and invest in code (online platforms, software, networks, informational dynamics, etc.) at the same time as code formalizes and shapes politics (discourses, movements and actors, etc.) according to specific informational logics. From a double-articulation perspective, online publics and issues result from linking, assembling, connecting, and thus hybridizing code and diverse political elements and actors. (Elmer et al., 2012, p. 48)

It is therefore key to consider how Instagram appeals to and shapes the particular publics that engage with the Trans Mountain pipeline issue, including how this might influence public pedagogy. The following section will explore in more detail how networked media demands a reconceptualization of public formation.

Social media and networked publics.

The publics connected to the Trans Mountain issue reflect diverse positioning in relation to the contested formation of settler colonialism and are shaped in relation to their participation on social media. In order to understand the pedagogical processes that are particular to the Trans Mountain issue on social media, therefore, it is necessary to clarify the *publics* that are engaged in this public pedagogical space, particularly as networked publics are not simply publics that participate online but "that have been transformed by networked media" (Boyd, 2010, p. 42). Much public pedagogy research is critiqued for leaving unexplored the issues of what "public" means (Biesta, 2012; Sandlin et al., 2011; Savage, 2010, 2013). This avoidance of specificity means that many researchers "[frame] public pedagogy broadly as something flowing through dominant ideologies and discourses" (Savage, 2013, p. 83), which is dismissive of the multiple ways that publics receive and respond to cultural expressions, including in relation to settler colonialism. Furthermore, even when "public" is defined, Savage critiques how the term is typically used in "mythologized and totalizing ways, operates on a false public/private distinction, and fails to account for the disjunctive nature of globalizing publics" (Savage, 2013, p. 79). In considering Instagram's public pedagogy, therefore, there is a need to theorize publics in relation to networked media (M. L. Hill, 2018; Jackson & Foucault Welles, 2015), as they do not fit with traditional Habermasian notions of the public sphere (Habermas, 2004) but more closely approximate the discursive counterpublics theorized by Fraser (1990) and Warner (2002). More specifically, the publics that emerge on social media may be theorized as affective and emergent, resulting in connective rather than collective participation with an issue like the Trans Mountain. These publics blend public and private matters and are tied up in both the subversive and commercial nature of the platforms themselves.

Beyond* the *public to multiple publics.

Increasingly, research on digital platforms critiques a normative, Habermasian model of the public sphere as a space of critical-rational debate among liberal, bourgeois subjects (Habermas, 2004), though this concept persists. Historical debates between utopian and

dystopian conceptions of technology rely on Habermas' model of public communication (Bruns et al., 2011), "focus[ing] on the rationality, purposefulness, and outcomes of online conversations for contemporary regimes" (Papacharissi, 2015, p. 26). For instance, in their public pedagogy research on YouTube, Kellner and Kim (2010) claim that Habermas's idea is "still a powerful concept to examine the Internet's potential for democratization" (Kellner & Kim, 2010, p. 5), especially in relation to individuals' voluntary participation in online discussions. Giroux's (2011) theories of public pedagogy similarly follow a Habermasian perspective, as he traces the negative impacts of neoliberalism on what he conceptualizes as a singular public sphere. Rather than offering the "progressive ideas, enlightened social policies, non-commodified values, and critical exchange" (Giroux, 2011, p. 10) associated with a critical-rational public sphere, Giroux asserts that neoliberal public spaces have been reduced to "dead spaces" or "entertainment spheres that infantilize almost everything they touch" (Giroux, 2011, p. 10). Even Giroux's central question for digital media is framed around a singular public sphere: "*how do we imagine the new media and its underlying communication systems as contributing to a distinctly different public sphere that offers the promise of recasting modes of agency and politics outside of the neoliberal ideology and disciplinary apparatus that now dominate contemporary culture?*" (Giroux, 2011, p. 21). By contrast, digital research is increasing recognizing that it is

> necessary to move beyond normative assumptions about the role of media in the maintenance of the public sphere—and beyond assumptions of the role of very specific modes of media participation (the production and consumption of political news or rational debates about political issues) in public discourse. It is also necessary to develop a more pluralistic and flexible concept of publics to comprehend the role that everyday creativity and communication may play within it, in the context of online social networks. (Bruns et al., 2011, p. 285)

Such research does not deny neoliberal influences, including how "net-based communication frequently privileges the net savvy, fragments conversation, and occurs in commercially driven spaces" (Papacharissi, 2015, p. 26). However, digital research increasingly takes seriously the nature of digital media in shaping publics. Digital scholarship acknowledges that democracies are not in fact rationally based but instead involve "a mix of emotion with fact-informed opinion" (Papacharissi, 2015, p. 26). Recognizing such limits of Habermas' critical-rational and

singular public sphere, therefore, public pedagogy scholarship may consider the specific ways that digital media interacts in public formation.

Considering the extensive discursive expressions created and circulated on digital networked media, both textual and visual, Fraser (1990) and Warner (2002) contribute helpful theorizations of discursively constituted counterpublics. Counter to a Habermasian view, Fraser advocates for the recognition of multiple non-mainstream publics and so-called "private" interests as necessary to democracy. Constituted by those who do not fit the liberal, bourgeois mainstream, subaltern counterpublics "help expand discursive space" (Fraser, 1990, p. 67) through their creation of "parallel discursive arenas where members of subordinated social groups invent and circulate counterdiscourses, which in turn permit them to formulate oppositional interpretations of their identities, interests, and needs" (Fraser, 1990, p. 67). As "online media afford visibility to voices frequently marginalized by the societal mainstream" (Papacharissi, 2015, p. 7; see also Morrow, Hawkins, & Kern, 2015), enabling networks of counterdiscourses to form and circulate, Fraser's conceptions are particularly helpful for a study of public pedagogy as it is carried out among such publics via networked media, including by publics marginalized by or opposed to settler colonialism. Furthermore, Fraser asserts that such public discourse also contributes to the formation of social identities according to lived experiences, where

> participation is not simply a matter of being able to state propositional contents that are neutral with respect to form of expression. Rather…participation means being able to speak "in one's own voice," thereby simultaneously constructing and expressing one's cultural identity through idiom and style. (Fraser, 1990, p. 69)

Recognizing the situatedness and fluidity of discursive expression, Fraser does not reify these counterpublics into clear categories but recognizes that each will be constituted by "internal differences and antagonisms" (Fraser, 1990, p. 70) arising from "a plurality of perspectives among those who participate" (Fraser, 1990, p. 70). Furthermore, the "unbounded character and publicist orientation of publics allows for the fact that people participate in more than one public, and that the memberships of different publics may partially overlap" (Fraser, 1990, p. 70). Though she was not writing about social media in particular, Fraser's expressive, fluid, and dynamic notion of counterpublics is foundational to understanding the forms publics take via interaction online. A limitation with her theory in studying the Trans Mountain issue, however,

may be that the concept of "counterpublics" might pre-empt the ways in which pipeline-resistant publics may be "counter" to the pipeline while reinforcing mainstream settler colonial values and discourses. Or, in a social media space dominated by resistance, pro-pipeline publics might be defined as "counter" to the prevailing discourses online. In other words, publics may not be clearly aligned in opposition or marginality, instead reflecting conflicting, intersecting, and overlapping positions with regards to various mainstreams created in relation to settler colonialism, Instagram as a platform, and in relation to the issue itself.

Focusing on counterpublics' discursive foundations rather than their subaltern nature, Warner (2002) theorizes counterpublics as self-creating and self-organized "space[s] of discourse organized by nothing other than discourse itself" (Warner, 2002, p. 50). These discourses, which are inevitably multiple, are not limited to the rational-critical dialogue of the Habermasian public sphere but also affective and poetic expressions that project future worlds. Though he does assert that a dominant public may be perceived as *the* public, Warner rejects outright notions of a unitary public sphere, particularly as such a public

> depends on the stylization of the reading act as transparent and replicable; it depends on an arbitrary social closure (through language, idiolect, genre, medium, and address) to contain its potentially infinite extension; it depends on institutionalized forms of power to realize the agency attributed to the public; and it depends on a hierarchy of faculties that allows some activities to count as public or general, while others are thought to be merely personal, private, or particular. Some publics, for these reasons, are more likely than others to stand in for the public, to frame their address as the universal discussion of the people. (Warner, 2002, p. 84)

In the face of emergent dominant publics, counterpublics express, circulate, and form around transformative possibilities. Though poetically expressive, publics are also concrete and "of historical rather than timeless belonging" (Warner, 2002, p. 61), shaped not by texts in pure form but also by "material limits—the means of production and distribution, the physical textual objects themselves, the social conditions of access to them" (Warner, 2002, p. 54), as well as by internal limits, including the "social closure entailed by any selection of genre, idiolect, style, address, and so forth" (Warner, 2002, p. 54). Both poetic potential and material limits are helpful frameworks for considering pedagogy among publics via social media, where accessibility of media is unevenly distributed, where protocols and cultures shape public discursive expression

and interaction via posting, including under settler colonialism, and where these visual and textual discourses interact with platform affordances, algorithms, and consumer culture.

Multiple publics, affect, and networked media.

While the work of Fraser and Warner is helpful in conceptualizing the discursive and subversive nature of publics beyond the public sphere, particularly considering the uneven relations inherent to settler colonialism, it is necessary to also consider the specific role of networked media in public formation. In contrast with publics formed by mass media, those shaped by social media are shaped by personalized networks and news feeds, involving affective, personal, and conversational communication rather than the unidirectional mode of professional publishing. Schmidt (2014) describes such networked publics as "personal publics," drawing attention to the unique, personalized, and distributed communicative space of networked media, "which is partly stable (e.g., the connections between followers and followees) and partly highly dynamic (e.g., the tweets using a popular hashtag)… [and] there is no 'shared location' where users and their contributions become visible" (Schmidt, 2014, p. 6). It follows that the publics that are discursively formed on social media have characteristics that are particular to their technological, social, and cultural contexts online.

In place of the rational-critical dialogue of the Habermasian public sphere, Papacharissi (2015) draws on Raymond Williams to assert that it is affect or "structures of feeling" that shape the publics emerging in relation to the unique storytelling structures available on social media. Through the combined logics of production and consumption Bruns (2006) terms "produsage," publics assembled from individuals

> engage in practices of rebroadcasting, listening, remixing content, and creatively presenting their views—or fragments of their views—in ways that evolve beyond the conventional deliberative logic of a traditional public sphere. These practices permit people to tune into an issue or a particular problem of the times but also to affectively attune with it, that is, to develop a sense for their own place within this particular structure of feeling. (Papacharissi, 2015, p. 118)

Practically speaking, this affective attunement is demonstrated through liking a post on Instagram or using various tools and filters to create a post, where the mixing of "text, audio, or video blend deliberative and phatic, intentional and habitual, cognitive and affective means of expression" (Papacharissi, 2015, p. 25). Such forms of connection across social and geographical

locations are key for creating "social spaces that support the expression of marginalized, liminal, or underrepresented viewpoints" (Papacharissi, 2015, p. 68) and the traversing of boundaries between so-called public and private spheres of life, where – following feminist thought – affect and "emotions [are] a legitimate source of knowledge alongside more favored educational comportments like logic, reason, and rationality" (Boler, 2015b, p. 1491). Against a linear notion of media effects, where social media is expected to lead to direct outcomes (such as regime upheaval, for instance), Papacharissi asserts that media "along with a variety of socioeconomic, cultural, political, and contextual factors, contribute in variety of ways, some overt and some latent, to different aspects of individual and aggregate behaviors" (Papacharissi, 2015, p. 27). As an example, Carlson and Frazer (2020) trace the ways that affect intersects with settler colonialism on social media, where affective expression by Indigenous people often responds to an imagined settler audience. On the one hand, Indigenous people self-police negative affective expressions to ensure their posts do not reflect negatively on their own communities, reflecting settler hegemony in digital spaces; on the other hand, online performance and circulation of resistant hope draws hope beyond individuals into the public, where it can prefigure possible collective futures. In these ways, theories of affect contribute a performative and non-linear component to public formation online, with implications for understanding public pedagogy.

Such affective publics test the public/private binary through condensed forms of expression that illuminate topics and perspectives that may previously have been considered outside the purview of the public sphere. The public/private binary has been "frequently deployed to delegitimate some interests, views, and topics and to valorize others" (Fraser, 1990, p. 73), usually to the advantage of dominant groups and individuals. By contrast, the "convergent nature of online media creates confluence between the social, political, economic, and cultural, realms, leading to expressions that blend and borrow from all of the above spheres of activity" (Papacharissi, 2015, p. 94). Online spaces "blur the boundaries between public and private, have the potential to politicize everyday life in new ways, and can involve a wide array of authors self-publishing their ideas and experiences" (Morrow et al., 2015, p. 528). Such engagement across boundaries denies the idea that one must "'rise above' one's social or cultural identity, personal feelings, and lived experience, to engage in legitimate public debate" (Bruns et al., 2011, p. 285), instead drawing upon popular culture, everyday experiences, and events of shared concern.

Connective and calculated publics on networked media.

Considering the potential for disruption of colonialism and other hegemonies by counterpublics, some public pedagogy scholarship, including feminist scholarship particularly (see Sandlin et al., 2011), is moving away from notions of a singular public pedagogue towards the expression of "educational and community leadership as grassroots, counterhegemonic, collective activism" (Sandlin et al., 2011, p. 357) by multiple public pedagogues. In place of *collective* publics, however, digital media supports expression by *connective* publics, in which "connective action practices permit people to express interest in or allegiance to issues without having to enter into complex negotiation of personal versus collective politics" (Papacharissi, 2015, p. 128). Around discrete issues such as the Trans Mountain pipeline, "issue publics" (Bruns & Burgess, 2011, 2015; Bruns & Moe, 2014) may form on an ad hoc basis via connective affordances such as hashtags, which "enable diverse distant publics to connect with, monitor, and affectively tune into an evolving event or issue. The resulting feeds sustain an ambient, always-on environment supportive of social and peripheral awareness for the people and publics connected" (Papacharissi, 2015, p. 129). Such publics are not necessarily collectively coordinated but are instead fluidly connected through social networks, which do "not require strong organizational control or the symbolic construction of a united 'we'" (Bennett & Segerberg, 2012, p. 748). Shaped not by "content that is distributed and relationships that are brokered by hierarchical organizations" (Bennett & Segerberg, 2012, p. 752), connective publics involve "co-production and sharing based on personalized expression" (Bennett & Segerberg, 2012, p. 752). This discursive element recalls to mind Fraser's and Warner's notions of counterpublics, but conceptions of connective publics also draw attention to the interaction of connective affordances in public formation and expression. While discursive and affective elements are key to understanding public pedagogical expression online, the primacy of connective affordances such as hashtags in shaping issue publics on networked media warrants specific consideration of issue public pedagogy, as I foreground in Chapter 5.

To complicate the idea of connective issue publics, however, even algorithms are at play in their structuring, creating what Gillespie (2014) terms "calculated publics" (see also Bruns & Burgess, 2015). Algorithms, which are not only "technologies of evaluation but of representation, help to constitute and codify the publics they claim to measure, publics that would not otherwise exist except that the algorithm called them into existence" (Gillespie, 2014,

p. 189). Due to the multiple and layered possibilities for ad hoc and calculated connection within a platform, the "overall picture therefore resembles a 'network of issue publics' constituted via overlapping mediated public spheres" (Bruns, 2006, p. 69), where connective affordances such as follower or friend lists, along with hashtags that connect users around shared interests and issues, can be understood as

> coordinating mechanisms for these issue publics—corresponding to, and in many cases also corresponding with, related issue publics as they may exist in other public spheres in areas such as politics, mainstream media, academia, popular culture and elsewhere. (Bruns & Burgess, 2015, p. 14)

Here, "individualized messages may be shared, propagated, and organically collated across networks" (Papacharissi, 2015, p. 70) within societies characterized by individualization and fragmentation, allowing for divergent reasons for participation (see also Bennett, 2012). At the same time, they may potentially upset established hierarchies and establish bonds that are "activated and sustained by feelings of belonging and solidarity however fleeting or permanent those feelings may be" (Papacharissi, 2015, p. 9). This connective and platformed nature of publics is key to understanding the functioning of pedagogy on social media, which is shaped neither by a singular public pedagogue, nor by a collective, but through networks of connections among human and more-than-human Instagram users, and the algorithms that interact in their relations. In relation to settler colonialism specifically, conceptions of publics as connective opens possibilities to explore how these intersecting agents resist and reinforce colonial categorizing and representational regimes through Instagram's public pedagogy.

Conclusion

As a key site of participatory social and cultural production, social media platforms such as Instagram may function as spaces to both contest and reinforce dominant ideologies and discourses, such as those related to settler colonialism. Though settler colonialism is typically theorized as a structure (Wolfe, 2006), social media may present a space where counterhegemonic notions of settler colonialism can be shared, including revelations about how it is not structured but assembled, where "settlers have to be made and power relations between and among settlers and Indigenous peoples have to be reproduced for settler colonialism to extend temporally and spatially" (Snelgrove et al., 2014, p. 5). The discursive mobility enabled by platforms such as Instagram contradicts notions of "colonial fatalism' that '[posit] a structural

inevitability to settler colonial relations" (Snelgrove et al., 2014, p. 8), as well as a binary of Indigenous/non-Indigenous that is presumed to shape relations within settler-colonial societies. Instead, the fluid and dynamic nature of public formation in relation to networked media opens a view to the pedagogical potential of Instagram to both reinforce and unmake the settler-colonial social world as various users engage online with a discrete and grounded issue, such as the Trans Mountain. At the same time, the intersection of multiple agents – including (but not limited to) Instagram users, platform affordances, corporate interests, algorithms, and popular discourses – implies that public pedagogical expression is likely to be innovative, but also muddied and complex.

Chapter 4 – Methodology: Distant and Close Analysis for Anti-Colonial Digital Research

Considering the nature of settler colonialism as partial and contested, constantly being established, resisted, and dismantled, it is critical to apply a methodology that acknowledges the performative nature of the social world (Latour, 2005). Rather than conceiving settler colonialism as a backdrop for the Trans Mountain pipeline controversy, an understanding of the social world as performative instead draws attention to the ways that settler colonialism is both constituted and resisted through public pedagogy. I thus apply a methodology that traces public pedagogy as it develops around the pipeline issue over time, using digital traces available through Instagram's Application Programming Interface (API) to map the pipeline issue, tracing how hashtags, images, location tags, and texts function within Instagram's public pedagogy surrounding the Trans Mountain.

The complex functioning of public pedagogy on social media, along with my aim to trace the contestation and reinforcement of settler colonialism, necessitates a methodology that legitimates both a broad, networked approach and a nuanced analysis. Thanks to digital traceability, we now have the "unprecedented opportunity to describe, model and simulate the global cultural universe while questioning and rethinking basic humanities concepts and tools that were developed to analyse 'small cultural data' (i.e. highly selective and non-representative cultural samples)" (Manovich, 2017, p. 60). In order to understand the functioning of public pedagogy on Instagram, I apply critical digital methods and visual methodologies to the Trans Mountain pipeline issue in order to map the issue and trace how publics connect and leverage the technicities of the platform en masse, including hashtags, images, location indicators, and text. In order to develop a more nuanced understanding of the precise pedagogies being used and to what extent these subvert and/or reinforce mainstream settler colonialism, I apply close reading practices to the reduced data sets and visualizations established via digital methods and visual methodologies. By combining computational or distant data analysis with close reading practices, I do not "need to choose between precision and scope in [my] observations: it is now possible to follow a multitude of interactions and, simultaneously, to distinguish the specific contribution that each one makes to the construction of social phenomena" (Venturini & Latour, 2009, p. 7). It is possible to do them both.

Throughout, my methodology is expressly critical and anti-colonial in its overt recognition of and efforts to mitigate the western colonial and military-industrial nature of big data practices (Leurs & Shepherd, 2017; Shepherd, 2015), and according to my position as a settler researcher. Drawing on Haraway (1991), Leurs and Shepherd assert that technological research is typically shaped by the "asymmetrical power embedded in a doctrine of objectivity" (p. 227) founded on "militarism, capitalism, colonialism, and male supremacy" (Haraway, 1991, p. 187; qt. in Leurs & Shepherd, 2017, p. 227). When the presumed objectivity of online data remains unquestioned, the "epistemological and ideological contours around what counts and how it is measured still serve to produce and reinforce structural inequality" (Leurs & Shepherd, 2017, p. 222), which big data methods tend to further shroud through automatic and algorithmic operations, as well as through seemingly objective and omniscient visualizations. Furthermore, most online researchers take the position of a "disembodied, outside observer" (Morrow et al., 2015, p. 538), without recognition of how researcher understandings of online spaces influence interpretations of data and the subjectivity assigned to media users. By contrast, I aim to remain self-reflexive of my own position and practices regarding the settler colonial framework through which I interpret the data. Refusing a positivist approach to digital research, I therefore treat social media data not as apolitical but to account for power relations throughout all components of my methodology, as I will outline in the various sections of this chapter, following the work of feminist (Morrow et al., 2015), anti-racist (Matamoros-Fernández, 2017), and critical (Fuchs, 2017, 2019) digital research. As anti-colonial digital research is still emergent, part of my project involves considering how to apply anti-colonial frameworks to digital research, and Chapter 7 revisits the methods articulated here in light of the project's findings in order to contribute to this nascent field.

Latour and Issue Mapping

By mapping the Trans Mountain pipeline issue, it is possible to trace and analyze the contestation of settler colonialism through public pedagogy on Instagram. Issue mapping draws on the work of Latour (2005) in *Reassembling the Social*, which is grounded in an understanding of society as performative rather than pre-given. Latour rejects notions of abstracted "social inertia," asserting that social inequalities must be constantly performed via practical means; in this way, any social grouping "is not a building in need of restoration but a movement in need of continuation" (Latour, 2005, p. 37), where "the rule is performance and what has to be explained,

the troubling exceptions" (Latour, 2005, p. 35). This is not to say that social facts are never materialized; rather, "decisions can be transcribed, borders reinforced by barriers, relationships sealed with symbols. Social structures can be stabilized by material infrastructures, but it is only through actors' coordinated work that collective phenomena can emerge and last" (Venturini & Latour, 2009, p. 4). Latour's notion of the performative nature of the social world presents a different way of thinking about settler colonialism and the participation of publics online. Rather than approaching settler colonialism as either an event or a structure (Wolfe, 2006) underlying and determining the social world, Latour's work encourages us to think about how the structure or "system is made up 'of' interacting actors" (Latour, 2005, p. 169) possessing various forms of agency. Here, rather than simply "'determining' and serving as a 'back-drop for human action,' things [from settler colonial 'structures' to platform affordances] might authorize, allow, afford, encourage, permit, suggest, block, render possible, forbid, and so on" (Latour, 2005, p. 72). Thinking about settler colonial society this way, I am able to explore the participatory pedagogical efforts of publics online as they both reinforce and subvert settler colonialism, through various platform affordances and in relation to the Trans Mountain pipeline issue.

Considering the performative nature of the social world, Latour reasons for the legitimation of actors' participation, where the researcher's role is to trace rather than define in advance or "*in place* of the actors…what sorts of building blocks the social world is made of" (Latour, 2005, p. 41). Here, the researcher's "duty is not to stabilize – whether at the beginning for clarity, for convenience, or to look reasonable – the list of groupings making up the social" (Latour, 2005, p. 29) or to explore action in relation to a social world behind the action. Instead, the researcher's role is "'to follow the actors themselves,' that is try to catch up with their often wild innovations in order to learn from them what the collective existence has become in their hands" (Latour, 2005, p. 12). In contrast with forms of public pedagogy research that legitimize the public pedagogue above the public, therefore, my role as a researcher is to "recognize the value of [the actors'] ways of seeing and their accounts of the topic at hand" (Rogers et al., 2015, p. 42), as well as "to resist pretending that actors have only a language while the analyst possesses the *meta*-language in which the first is 'embedded'" (Latour, 2005, p. 49). This means paying attention to how particular actors render the Trans Mountain issue through their use of Instagram, and legitimating these renderings throughout the research process. These actors may include not only human but also more-than-human actors, including "natural and biological

elements, industrial and artistic products, economic and other institutions, scientific and technical artifacts and so on and so forth" (Venturini, 2012, p. 800). Thinking about Instagram as a platform of public pedagogy around the Trans Mountain issue, it is key to consider the pedagogical functioning not only of the various institutions, organizations, and governments actively engaging in the issue, but also the pedagogical role of the platform itself.

Building on the work of Latour, issue mapping (Marres, 2015; Marres & Moats, 2015; Marres & Weltevrede, 2013; Rogers et al., 2015) draws on controversy mapping (Venturini, 2010, 2012) to focus on *issues* and the *publics* that form around them, taking

> as its object of study current affairs and offer[ing] a series of techniques to describe, deploy, and visualize the actors, objects, and substance of a social issue. It is concerned with the social and unstable life of the matters on which we do not agree and with how the actors involved are connected to each other. (Rogers et al., 2015, p. 9)

Rather than focusing on ossified structures, issue mapping follows Latour's performative understanding of the social world, presenting an opportunity to "*display the social in its most dynamic form*. Not only do new and surprising alliances emerge among the most diverse entities, but social unities that seemed indissoluble suddenly break into a plurality of conflicting pieces" (Venturini, 2010, p. 262). In an issue network, actors form ties through "issue labour" (Sánchez-Querubín, N. et al., 2017, p. 96), rather than being dependent on shared goals or existing alliances. With regards to public pedagogy, therefore, I trace the process of "issuefication," which "may be described as the labour of each entity participating in a debate or as a set of skilled activities, which invite the actors to make a difference" (Rogers et al., 2015, p. 41) within the issue network. In other words, my study maps the issue expressions that are shared on Instagram, as well as connections within the issue network, to examine participatory public pedagogy around the Trans Mountain. Such tracing enables the mapping of power relations, discourses, and social categories in order to address issue questions such as "What is at stake? According to whom? What is to be done? How to map and communicate the substance and the conflicting expressions of the issue, so that action is both captured as well as taken?" (Rogers et al., 2015, p. 10). Furthermore, it enables mapping of cultural production as shaped by the multiple "tools and interfaces of technologies used for its creation, capturing, editing and sharing (e.g. Instagram filters, its Layout app, etc.)" (Manovich, 2017, p. 61) in relation to the issue, which I explore as expressions of public pedagogy.

In order to map these various issue expressions, according to Latour, researchers should start with the issue and follow it to find actors and associations, taking "controversies… as a starting point and then [focus on] the struggle, the action, and the movement" (Rogers et al., 2015, p. 16) rather than "presenting, in advance, a divided and classified list of the actors, domains and methods that are meant to compose the social" (Rogers et al., 2015, p. 16). In contrast with social scientific research that divides "the microdimension of face-to-face interactions and the macro-dimension of systemic structures" (Venturini, 2012, p. 801), issue mapping enables crossing between these dimensions in exploring collective phenomena, upholding how "controversy and innovation unfold in social and epistemic, political, and technical dimensions all at once, and indeed, the merit of controversies as research objects is that they render visible 'heterogeneous entanglements' between different types of entities" (Marres & Moats, 2015, p. 3). Issue mapping is therefore an effectual means of tracing the emergent, distributed, and shifting public pedagogical landscape of the pipeline issue, which moves across cultural and geographical borders, involves a number of hierarchically arranged sectors and political bodies in relation to settler colonialism, and incorporates human and more-than-human actors, such as institutions, platforms, and ecosystems.

In order to trace public pedagogy within such complex and distributed issue dynamics, I follow Latour (2005), as well as Rogers, Sánchez-Querubín, and Kil (2015), in multiplying maps and points of view through the practice of counter-mapping and critical cartography (Crampton, 2011). A critical stance is key to countering positivistic approaches to data visualization that solely seek to map patterns rather than interpreting these patterns through a reflexive orientation towards data gathering, filtering, and analysis (Caplan, 2016; van Es et al., 2017). Following a "tradition of artistic appropriation of maps in order to elaborate political narratives of resistance" (Rogers et al., 2015, p. 25), critical cartography draws attention to structural oppression and functioning of power, turning the viewer's "gaze back onto the master narrative of maps" (Paperson, 2014, p. 123). Critical cartography brings a reflexivity to issue mapping through "relentless recognition of the map's manufacture" (Rogers et al., 2015, p. 96) that addresses the "dual nature of mapping as both the object of and tool for critique" (Rogers et al., 2015, p. 94). Reflexivity is key to critical cartography, particularly as "at least some element of the dominant mapping practice is likely to be employed, even if only to be subverted" (D. Hunt & Stevenson, 2017, p. 373) within countermapping practices. Visualizations, when created and interpreted in

context and in relation to a theoretical framework, may be used analytically, in order to identify patterns and anomalies (van Es et al., 2017), but also narratively, in order to story relations in new ways (Bounegru et al., 2017). By deconstructing hegemonic taxonomies and territories, critical cartography is a fitting means of bringing an anti-colonial approach to digital research.

Reflexivity in relation to researcher positioning is key to anti-colonial countermapping and analysis, particularly in relation to the performance of settler colonialism online, where

> in the digital platforms of control societies, subjugated histories and modes of representation can be more easily distorted, archived and commodified and thus run the risk of being effectively and affectively de-politicized and, potentially, recuperated and weaponized. In short, although the proliferation of new technologies creates space for new forms of solidarity and collaboration, they are at the same time susceptible to new and evolving notions of "control." (D. Hunt & Stevenson, 2017, p. 381)

Leurs and Shepherd (2017) note the discrimination inherent to many data visualizations, where "traces of European expansionism continue to imbue measurements and representations of the social world" (Leurs & Shepherd, 2017, p. 223), following a "longstanding colonial tradition of harnessing visuality for control and profit" (Shepherd, 2015, p. 1). Similarly, Caplan (2016) critiques data visualizations such as Manovich's Selfiecity for representing data in visually compelling ways without providing interpretation, thus taking a "non-position that ultimately leaves us with no navigational tools, a view from an imagined outside that predictably secures a vision from nowhere" (Caplan, 2016, p. 6). Following unsettling and decolonizing remapping practices (D. Hunt & Stevenson, 2017; Paperson, 2014), therefore, my goal with issue mapping is not to reify existing social structures and power relations but to provide multiple maps and counter maps along with interpretations, as I will outline in more detail below, which "[unsettle] the very categories that constitute the intelligibility of modern power relations" (Crampton, 2011, p. 125; cf. Shepherd, 2015) in ways that expose the performance of settler colonialism in public pedagogy online.

Distant and Close Digital Research: Critical Digital Methods, Visual Methodologies, and Close Reading

In order to bring a more critical and anti-colonial approach to my project, I combine large-scale digital methods and visual methodologies with close reading practices to my study of public pedagogy on Instagram. Operationalizing issue mapping through digital methods (Rogers,

2013, 2015, 2017; Rogers et al., 2015; Venturini et al., 2018) and visual methodologies (Niederer & Colombo, 2019; Pearce et al., 2020; Rose, 2016a, 2016b), I use web-based data to map the Trans Mountain issue as it is performed online. Considering my interest in tracing settler colonialism in relation to the pipeline issue, I take a critical approach to digital methods (Fuchs, 2017, 2019), refusing data positivism in favor of a broader analysis of context, ideology, creativity, agency, and power relations in social media expression. Critical digital methods apply computational and statistical analysis but also address the power structures inherent to social media itself, providing a deep contextual and theoretical analysis of the data. Fuchs (2017) asserts that to become critical, digital methods must engage in a "broader analysis of human meanings, interpretations, experiences, attitudes, moral values, ethical dilemmas, uses, contradictions and macro-sociological implications of social media" (Fuchs, 2017, p. 40). Here, not only "ideologies *of* the Internet but also ideologies *on* the Internet" (Fuchs, 2017, p. 44, italics added) come under scrutiny. Critical digital methods thus combine large-scale quantitative data analysis with theory-based interpretation, which I carry out using close reading practices (Bardzell, 2009; Culler, 2011; Gallop, 2000, 2007) that complement computational analysis. Through close reading, I analyze the data in relation to a settler colonial framework in order to understand how publics both contest and reinforce mainstream Canadian settler colonialism as they teach about the Trans Mountain pipeline online.

Digital methods.

Digital methods work with the tools embedded in such platforms as Instagram, including time stamps, location tags, images, and hashtags, repurposing them for social and medium research (Rogers, 2013, 2015, 2017). Digital methods work with "born-digital" data, with attention to "[media] effects, platform vernaculars and user cultures" (Venturini et al., 2018, p. 4203), forming strategies to deal with the ephemerality of social media, where features, settings, and access to Application Programming Interfaces (API's) change frequently (Rogers, 2015). Digital methods leverage how digital mediation enables social (Rogers et al., 2015; Venturini, 2012) and cultural (Manovich, 2017) traceability, taking advantage of the "accessibility, aggregability, and traceability of the statements and literatures as well as their connection to actors and of actors to each other" (Rogers et al., 2015, p. 44). Digital methods thus provide innovative means of tracing public pedagogy as it functions among a multiplicity of users online.

Media studies and social and cultural research are entangled in digital methods, where there is a close connection between platform dynamics and issue dynamics (Marres, 2015; Marres & Moats, 2015; Marres & Weltevrede, 2013; Venturini et al., 2018), making it difficult to differentiate between the two. Part of the ambiguity arises from the fact that data is already structured for digital analysis by the platform itself, so that

> the difference between 'scraping the medium' and 'scraping the social' is probably best understood as a difference in degree: in some cases, online devices play an ostensibly large role in the structuration of data, while in other cases we can point to a discernable empirical object, which is not really reducible to the medium-architecture that enables it. (Marres & Weltevrede, 2013, p. 329)

Furthermore, the data that is available through platforms such as Instagram contain digital biases and traces, necessitating attentiveness to "which effects belong to media technologies, which to the issues, and which to both" (Marres & Moats, 2015, p. 6). For instance, bots and corporate campaigns may interact in the issue space, raising questions about how these actors may participate in public pedagogy – or whether they should be disregarded. Further, the platform itself structures issue participation through its conventions and cultures. As an example, prominence of issue hashtags associated with corporate advertising, hacktivist campaigning, and small talk on Twitter "suggest[s] that a variety of different types of issue engagements [are] facilitated by this platform" (Marres, 2015, p. 672). As digital devices and networked platforms are in part formative of issue dynamics, my study of public pedagogy must therefore "treat the ambiguity of online issue formations as a topic of critical inquiry" (Marres, 2015, p. 673). Here, "rather than treating digital bias as a negative phenomenon to be bracketed, we should then develop methodological and empirical tactics that address the question of how digital devices participate in the enactment of controversy and the formation of issues" (Marres, 2015, p. 677). A study of public pedagogy on Instagram must therefore dialogue user autonomy and expression with platform dynamics in order to explore how the two interact.

Digital methods therefore enable exploration of multiple agencies – human and more-than-human – as they come together in the public pedagogy of complex issues like the Trans Mountain pipeline. Through digital traces, it is possible to explore such pedagogical expressions as shared or divergent vocabularies and keywords, image patterns, storying of particular places, and links to other issues, all of which "can be identified, clustered, mapped, and the resulting

work can be stored, re-accessed, and re-evaluated. One may make numerous maps, multiplying the views, and each dot may be traced back to the source" (Rogers et al., 2015, p. 44). Unlike more static analyses of culture, digital methods enable a form of "cultural analytics" that engages multileveled analysis:

> rather than dividing cultural history using one dimension (time), or two (time and geographic location) or a few more (e.g. media, genre), endless dimensions can be put in play. The goal of such "wide data analysis" will not be only to find new similarities, affinities and clusters in the universe of cultural artefacts, but to question a taken-for-granted view of things, where certain dimensions are taken for granted. (Manovich, 2017, p. 67)

Once collected using various internet scraping tools, the outcomes of digital analyses are "expressed through visualizations such as issue clouds and lists; layered and annotated cartographical maps; network graphs, alluvial diagrams, and other line maps; flow charts and mediator maps; and bubble matrix charts (with a temporal element) and a timeline" (Rogers et al., 2015, p. 37), along with analytical summaries of Instagram imagery such as image stacks and networks. According to a critical cartographical approach, I develop multiple maps, as detailed below, which express multiple as well as marginalized viewpoints, preventing entrenchment of dominant, colonial modes of categorization and issue definition. The cartography provided by digital methods shows directionality, centrality, hierarchy, location, temporality, and spatialization within public pedagogical expression around the Trans Mountain issue, including dominant and resistant publics and discourses, as well as where they congeal and separate. These directional and hierarchical maps are key to understanding the full spectrum of public pedagogy within this issuescape, through participation by a variety of actors such as governments, industries, Indigenous peoples, and other interested citizens.

It is important to note that digital methods map issues as they are born and performed online and thus do not account for those actors who do not create online content or participate in online discussions. Even considering the ubiquity of computers in western society, "important portions of collective life remain impermeable to digital mediation" (Venturini, 2012, p. 803) for a number of reasons, including the fact that "participating in online spaces requires time, money, literacy, and Internet access" (Morrow et al., 2015, p. 8). In Canada, 25.5 million people, or 70% of the population, used smartphones in 2018, with the number expected to have grown to 32.5

million by 2020 (Rody-Mantha, 2018). While this is much higher than the global average of roughly 50%, cell phone usage is uneven across Canada. I therefore acknowledge that there may be rural and remote populations including communities on Indigenous reserves (Fontaine, 2017; Howard et al., 2010; Smillie-Adjarkwa, 2005), aged individuals, and anti-technology populations whose knowledges and perspectives on the issue may not be shared online (Sciadis, 2002) and will thus not be reflected in my findings. Furthermore, even where digital access is high, "digital literacy is not uniformly diffused in society (men, young people, and those with high levels of education are generally overrepresented in online samples)" (Venturini & Latour, 2009, p. 8). I am therefore looking at the pedagogy that is particular to Instagram and the publics active on this platform. As a result, it is critical to remember that digital methods provide not a complete and conclusive picture of the Trans Mountain issuescape but rather multiple counter-maps that make legible various ways public pedagogy around the issue functions on Instagram.

Visual methodologies.

In order to engage the image-based nature of Instagram, I apply visual methodologies that account for the power relations inherent to visuality under settler colonialism. Though social media research is predominantly text-based, often for pragmatic reasons such as the ease of data collection and processing (Highfield & Leaver, 2015, p. 4; Pearce et al., 2020, p. 8), the privileging of language in social media research is not merely practical. It is also an epistemological preference grounded in western thought that "creates a hierarchy which prioritises reading over seeing, thus neglecting the potential of images as a significant mode of contestation and reflection" (Pearce et al., 2020, p. 5). Such a preference denies how "language is no longer the unchallenged dominant mode in public forms of communication" (Pearce et al., 2020, p. 6), where imagery is key for "self-representation, storytelling, affect, and the creation of publics in digital media ecologies" (Pearce et al., 2020) and is a form of "visual speech – an immediate, intimate form of communication that replaces writing" (Rubinstein & Sluis, 2008, p. 18). Because visibility is bound up in ways of knowing and being, Traue et al. (2019) assert that research must attend to how digital visuality is a "regime of visibility," contributing particular "forms of domination and resistance with and through the image" (Traue et al., 2019, p. 9), connected to other technological, social, economic, and cultural regimes, and with significant capacities to participate in public dialogue (Hariman & Lucaites, 2007). Regimes of visibility are shaped by the technicity of platforms, which co-produce content and situate images within

networks of associations among users and digital carriers that together create, format, and redistribute content (Niederer & Colombo, 2019, p. 44). Imagery also intersects with historical and current regimes of visuality under settler colonialism, where visuals have been – and continue to be – used to reify colonial visions of the land, peoples, and nation (Braun, 2002; Spiegel et al., 2020), as well as to resist such visions (Martineau & Ritskes, 2014). Digital imagery thus necessitates attentiveness to how digital images are bound up in various relations and power dynamics, and including how these result in layered agencies and restrictions.

On platforms such as Instagram, the "norms, protocols, and user cultures…codify their own conversational forms and rhetorics tailored to their respective online contexts" (Pearce et al., 2020, p. 6). Following Burgess' (2006) concept of "vernacular creativity," and the concept of "platform vernaculars" proposed by Gibbs et al. (2015), Pearce et al. (2020) term these norms and cultures "visual vernaculars." While Manovich (2017) has conducted an extensive study on the nature of Instagram's visual communication, there is arguably room to further explore the pedagogical qualities of Instagram imagery. With regards to public pedagogy and the pipeline issue particularly, consideration of imagery is critical, as "visual social media content can highlight affect, political views, reactions, key information, and scenes of importance" (Highfield & Leaver, 2016, p. 48). Social media presents a fluid mode whereby users "have variously mixed the political and the mundane, the extraordinary and the everyday" (Highfield & Leaver, 2016, p. 48). Furthermore, Instagram provides a particularly localized means of visual expression, with users tagging specific locations and framing the political through ostensibly mundane experiences that are often shared on location and in the moment. Instagram is not limited to instant sharing, however, also allowing multiple visual forms of "story-telling and meaning-making …[that] variously incorporat[e] the original image, the edited and collaged media, and the appropriated visual" (Highfield & Leaver, 2016, p. 53), including circulation and remixing of those iconic images that both work to unify "a public culture amidst conditions of social fragmentation, and…[forget] what lies outside the frame" (Hariman & Lucaites, 2007, p. 289). Such nuanced use of imagery at times warrants close reading of key subsets of data or individual visual expressions; however, the mass expression of Instagram also demands engagement with cumulative visual effects and aggregate meanings within networked expression.

Visual methodologies (Hand, 2017; Niederer & Colombo, 2019; Pearce et al., 2020; Rogers, 2021; Rose, 2016a, 2016b) work with the particular nature of social media imagery, engaging with its "mutable, multimedial and mass" (Rose, 2016a, p. 336) qualities through innovative methods. Rose (Rose, 2016a, 2016b) asserts that social media imagery does not lend itself to close reading practices, which do not address the scale of social media and tend to overemphasize the craft of a particular image where social media imagery tends to be quickly produced, mutable, and ephemeral (see also Hand, 2017; Kasra, 2017; Rubinstein & Sluis, 2008). On social media platforms, media engagement is notably uneven, where a user might swipe past a video, or watch it "once, twice, or leave it running for dozens of iterations, taking different meaning and significance from it" (Highfield & Leaver, 2016, p. 55). Furthermore, social media imagery is also embedded in larger platform ecologies, where "cultural meanings are no longer represented by cultural objects, but are produced at multiple sites and interfaces, between hardware, software and humans" (Rose, 2016a, p. 347). Image meaning is not simply contained within the image but is shaped by the "network of relations around it" (Rubinstein & Sluis, 2013, p. 46; qt. in Borges-Rey, 2015, p. 577), which contributes to the evolution of an image's meaning over time as it is distributed, reframed and remixed, and taken up in digital dialogue (Kasra, 2017). Within a network of relations, an "image is undecidable because the meaning of the image is not fixed to any specific event but to the progressive accumulation of a 'data shadow' that determines its visibility and currency in a range of situations" (Rubinstein & Sluis, 2013). This data shadow includes manual tags (such as hashtags), external annotation of metadata (such as time stamps and user names), and internal analysis of visual content by artificial intelligence, all of which blend the boundaries between image, text, and numbers, creating new relations between images and the "outside world" (Hochman, 2014, p. 5) through such processes as annotation, promotion, patterning, and connection. Because of these transformations, networked imagery requires digital methods that

> explore the processes and forms through which these huge numbers of images are organized. Without this, any new method will be unable to address the "power geometry" which shapes the creation and circulation of digital images. It is important, therefore, that new methods engage with both the scale and the distribution of contemporary cultural production. (Rose, 2016a, p. 344)

In this way, visual methodologies contextualize visual discourses within the greater issuescape, allowing a collective form of analysis that would be impossible through the close reading of individual Instagram images alone. Furthermore, they provide a means of examining the ways in which popular and resistant visual discourses reinforce or challenge textual discourses.

Visual methodologies are flexible and innovative, finding new ways to trace visual vernaculars and creativity – and, by extension, public pedagogy – on social media platforms such as Instagram through both quantitative and qualitative means that treat images both as *data* and as *content* (Niederer & Colombo, 2019). Returning to a Latourian approach to issue mapping, multiple visual maps and countermaps illuminate visual discourses, networks, and power dynamics that are not evident via text-based approaches. Highfield and Leaver (2016) call for "analytical flexibility…and investigative capabilities" (p. 52) when interrogating visual media, including use of a number of tools, such as Google's Reverse Image Search and Cloud Vision API. Following this line of analysis, I trace and analyze issue networks in Chapter 5 by connecting imagery to hashtag use, building on the practice of co-hashtag analysis, which uses Gephi to map the associations between issue expression via hashtags that are frequently used in conjunction. This mode of analysis foregrounds textual framing of the images, providing an integrated approach to image use on Instagram. By contrast, other methods foreground imagery rather than text; for example, various forms of composite images and image plots map images according to visual characteristics, enabling comparison (Alinejad et al., 2019; Niederer & Colombo, 2019; Rogers, 2021). These may draw attention to visual patterns and the "type[s] of visual aesthetic communication associated with a social phenomenon" (Pearce et al., 2020, p. 11) like the pipeline issue. Following this line of analysis, I develop composite images in Chapter 6 by layering images associated with particular locations for visual comparison; as Pearce et al. (2020) assert, "analysis of text generally produces new text, so we argue that analysis of images can productively produce new images which can aid identification and interpretation of visual vernaculars" (p. 14). In the case of composites, visual methodologies extend to "designing images *for* research… [which] require an active research attitude" (Niederer & Colombo, 2019, p. 49) towards analysis. While there is still a language bias in searching and sorting imagery by textual tags, a combination of text-forward and image-forward approaches may provide different ways of understanding how imagery functions pedagogically on Instagram. To complement these qualitative analyses, I also conduct close reading of reduced image sets and composites

according to content-oriented approaches (Niederer & Colombo, 2019) to visual representation of the pipeline issue.

Close Reading.

In conjunction with digital methods and visual methodologies, close reading (Bardzell, 2009; Bizzocchi & Tanenbaum, 2011; Culler, 2011; Gallop, 2000, 2007; Smith, 2016) enables deep analysis through a critical and anti-colonial approach, along with the interpretation of public pedagogy within the contexts of both the Trans Mountain issue and settler colonialism. Close reading addresses nuances and contexts that may be missed by the broad mapping of digital research (Rogers, 2021). For instance, close reading may reveal subtle uses for hashtagging beyond or in addition to connecting to larger issue dialogues, such as engagement with opposing positions (Sánchez-Querubín, N. et al., 2017), marking the significance of a post, connecting to global dialogues, or promoting a user's own work (Bonilla & Rosa, 2015). Furthermore, close reading enables analysis of hashtags in relation to the actual content of posts, which on Instagram is substantial. To this point, much hashtag research has been conducted on Twitter; however, platform-specific tagging and posting behavior on Instagram is characterized by larger blocks of text and hashtags resulting from a lack of word limits (in contrast with Twitter's 140-character limit). This substantial amount of content not only makes computational hashtag analysis more difficult by resulting in more densely interconnected hashtag networks, but it also necessitates new methods in order to explore the actual content of the posts. While computational analysis of text is possible, critiques of solely computational methods note that while text analysis tools are improving, they are not as effective as human readers in noting subtleties of language and affect, particularly humor and irony (Ampofo et al., 2015), as well as of the contextual elements that are key to understanding text (Lewis et al., 2013) and images (Highfield & Leaver, 2015). Software may not yet therefore be as adept as human readers to recognize the ways that "not all statements are equally interesting to the actors and not all actors are mediators who can change the course of action of a debate" (Rogers et al., 2015, p. 44) – a recognition that is critical for issue mapping (Venturini, 2010). So, while it is commonly recognized that computational analysis enables recognition of visual and textual patterns and associations and is better purposed to manage the ephemeral, dynamic, and massive data available via social media platforms, I assert that close reading practices complement computational methods with contextual, theoretical, and subtle analysis that is key to

understanding the functioning of Instagram's public pedagogy around the pipeline issue, particularly as it reinforces and contests settler colonialism.

While traditionally practiced within literary studies, close reading can be applied to any "text" or cultural production, making it helpful for the analysis of Instagram posts. So, close reading practices may engage with texts such as the data visualizations created through computational analysis, as well as with subsets of full Instagram posts associated with hashtags, images, topics, or locations that emerge as notable. By conducting close readings of these various forms of texts, it is possible to more deeply understand the "operative machinery" (Smith, 2016) and intertextuality of Instagram posts, key contextual elements, and the subtleties and meaning within both text and imagery. This method is helpful for understanding the functioning of Instagram for public pedagogy as "close reading of a text can reveal important details, not only about that specific text, but about the *poetics* of a medium writ large" (Bizzocchi & Tanenbaum, 2011, p. 3). Such analysis is "particularly useful during moments of media transition and emergence… In order to fully understand a medium, we need to have a deep understanding of how it functions in praxis" (Bizzocchi & Tanenbaum, 2011, p. 5).

Close reading provides holistic engagement with texts and images, including interrogation of these texts via an established theoretical framework, such as settler colonialism. It may thus involve "multiple readings/viewings of the text; situating the text in its social and historical contexts; [and] deconstructing the text using a variety of critical strategies" (Bardzell, 2009), with an aim not to uncover a "true" meaning but "to unearth all possible types of ambiguities and irony" (Looy & Baetens, 2003, p. 8). Close reading thus maintains attentiveness to craft, meaning, and context, including marginal, surprising or subversive elements (Gallop, 2000). For imagery – whether large data sets computationally visualized, smaller subsets, or individual images – it entails paying "close attention…to the form and structure of the cultural object, in order to unpack the meaning of each of its constituent symbolic parts" (Rose, 2016a, p. 335), and then "analysing how those meanings affirm or challenge power relations" (Rose, 2016a, p. 336). This attentiveness to power and meaning is in line with my critical approach, enabling me to engage the data explicitly in relation to settler colonialism. In contrast with positivist approaches to big data analysis, therefore, "when close readings are performed, they are not performed in an observational vacuum. The scholar-reader brings her own set of theoretical issues and observational lenses to bear in the analytical process" (Bizzocchi &

Tanenbaum, 2011, p. 5). At the same time, close reading is accountable to the producers of texts, following an "ethical duty to attempt to hear what someone else is really saying" (Gallop, 2000, p. 12). In keeping with issue mapping, therefore, close reading may be a critical way of adhering to Latour's call to "follow the actors," with particular attentiveness to how they may reinforce and challenge dominant settler colonial modes of thought via platform affordances on Instagram.

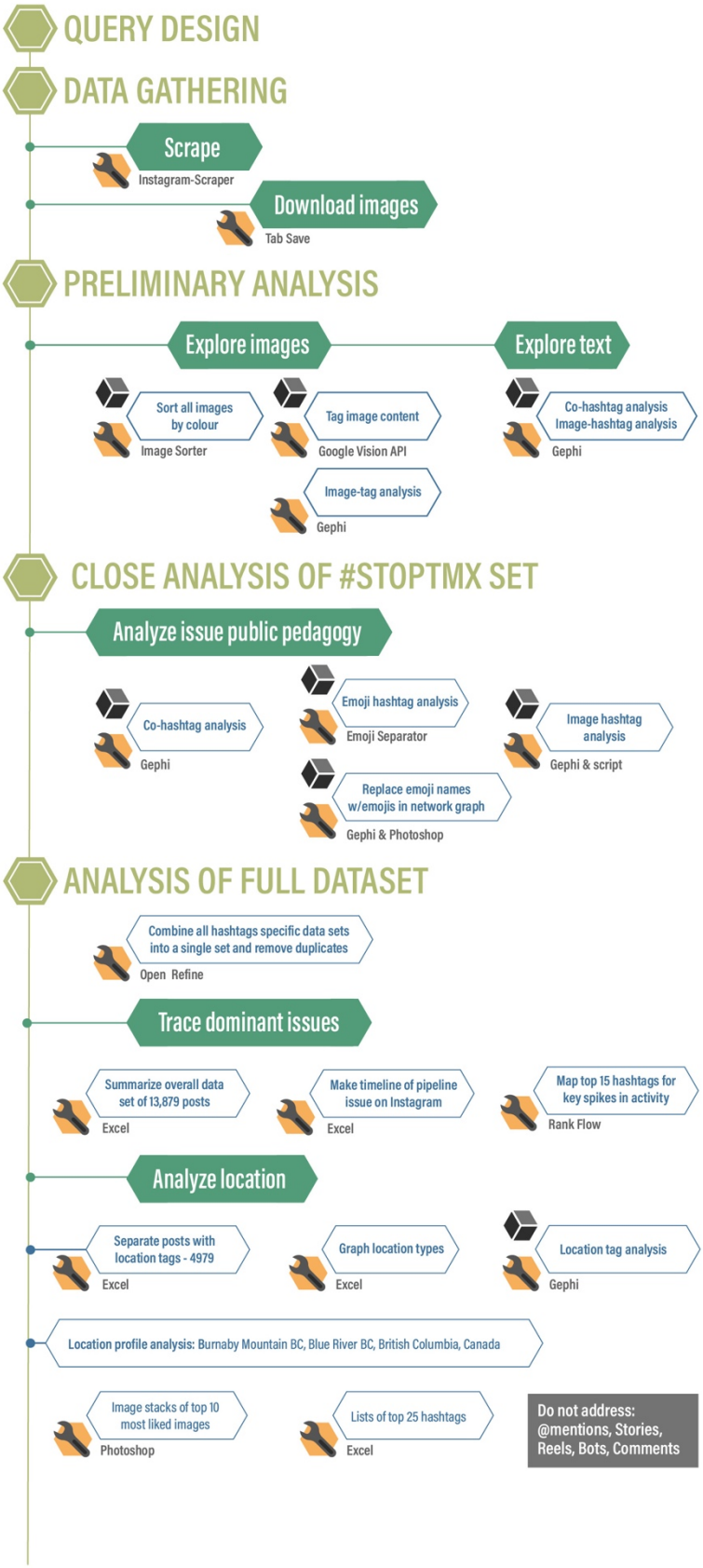
Methods and Data Set

The methods for my study are outlined in the research protocol diagram in Figure 4.1 and described in this section, though details for some of the precise methods are outlined in Chapters 5 and 6. Research protocol diagrams condense the research process into a process log and methods map that can inform future research (Niederer & Colombo, 2019, pp. 50–53). Representing diverse components of the research process, from software tools to research outputs that include the actions of both humans and machines, research protocols make plain the analytical choices made along the way. In the context of this chapter, the research protocol diagram is a summative map; however, I return to it in Chapter 7, as I reflexively analyze the methodological choices in this research.

Query design and scrape.

The initial stage in my research process involved query design, wherein I determined which data to procure from Instagram by searching and scraping posts associated with queried hashtags. Query design is not merely a technical task but a critical aspect of digital methods, particularly as publics associate with specific keywords that do not have equivalents or substitutes and that may change over time. Further, keywords may be part of specific "programmes, anti-programmes or efforts at neutrality" (Rogers, 2017, p. 82) in relation to the issue. In digital methods,

Figure 4.1 – Research Protocol


QUERY DESIGN
DATA GATHERING
Scrape
Instagram-Scraper
Download images
Tab Save
PRELIMINARY ANALYSIS
Explore images
Explore text
Sort all images by colour
Image Sorter
Tag image content
Google Vision API
Image-tag analysis
Gephi
Co-hashtag analysis
Image-hashtag analysis
Gephi
CLOSE ANALYSIS OF #STOPTMX SET
Analyze issue public pedagogy
Co-hashtag analysis
Gephi
Emoji hashtag analysis
Emoji Separator
Replace emoji names w/emojis in network graph
Gephi & Photoshop
Image hashtag analysis
Gephi & script
ANALYSIS OF FULL DATASET
Combine all hashtags specific data sets into a single set and remove duplicates
Open Refine
Trace dominant issues
Summarize overall data set of 13,879 posts
Excel
Make timeline of pipeline issue on Instagram
Excel
Map top 15 hashtags for key spikes in activity
Rank Flow
Analyze location
Separate posts with location tags - 4979
Excel
Graph location types
Excel
Location tag analysis
Gephi
Location profile analysis: Burnaby Mountain BC, Blue River BC, British Columbia, Canada
Image stacks of top 10 most liked images
Photoshop
Lists of top 25 hashtags
Excel
Do not address: @mentions, Stories, Reels, Bots, Comments

> query design may be viewed as an alternative to forms of discourse and content analysis that construct labelled category bins and toss keywords (and associated items) into them. That is, in query design specificity of the language matters for it differentiates as opposed to groups. (Rogers, 2017, p. 93)

By selecting appropriate query terms, namely key pipeline-related hashtags, I was able to study the issue as broadly as possible, "without categorizing and without sampling" (Rogers, 2017, p. 93) in advance. Such a query enabled interpretive strategies of both close and distant reading (Manovich, 2017; Rogers, 2017), according to my methodology.

For my study, hashtags for query were identified over time through my own research on Instagram. I looked not only for the most dominant hashtags but also those that generated fewer data points but perhaps indicated perspectives marginalized within the hierarchy of discourses and values in relation to settler colonialism, as articulated in my discussion of environmentalism, extractivism, and Indigenous land-based knowledges above. The resultant hashtag list included pro-pipeline hashtags, #buildkm and #keepcanadaworking, the second of which was affiliated with a pro-pipeline campaign. The query also included the issue-neutral hashtags, #transmountain, #transmountainpipeline, and #kindermorgan. The remainder were anti-pipeline, including campaign hashtags, #protecctttheinlet and #tinyhousewarriors; those opposing Kinder Morgan's development of the Trans Mountain pipeline before its purchase by the Canadian government, namely #stopkm and #stopkindermorgan; and the general anti-pipeline hashtags opposing the Trans Mountain extension, #notmx and #stoptmx.

I queried Instagram in June 2020 according to these hashtags using instagram-scraper, a Python-based software tool available on GitHub (arc298, 2020). As instagram-scraper outputs only a json file for each query, I converted each of these files to csv format using an online converter (*JSON to CSV Converter*, 2021). I subsequently downloaded all images affiliated with each hashtag into individual folders using Tab Save (naivelocus, 2014), a Chrome extension that enables bulk downloads. Downloading images soon after querying instagram-scraper is key, as links to Instagram posts are changed frequently by the platform and therefore quickly expire, making it difficult or impossible to later find images affiliated with posts.

As I anticipated that hashtags might bleed into other issues, I conducted preliminary analysis of the corpus of posts affiliated with each hashtag in order to determine whether and how these hashtag-oriented corpuses should indeed be included in the study. For each hashtag

set, I created a co-hashtag graph and a location-hashtag graph in Gephi (Bastian et al., 2009) to identify prevalent hashtag discourses and key locations affiliated with each hashtag. I also used Image Sorter (pixolution GmbH, 2012) to sort the images according to color, which enabled a quick scan of the content and patterns of imagery in each hashtag set. I also ran the #stopkm set of images through Google Vision API (*Cloud Vision API*, n.d.), which tags image content using machine learning, enabling efficient, large-scale mapping of image content. Through these initial analyses, it became evident that some of the hashtag sets should be discarded. While the pro-oil hashtag, #keepcanadaworking, was originally used by the Alberta government to promote the construction of the Trans Mountain pipeline, by the time of data collection, the hashtag was primarily being used to address the Canadian government's COVID-19 response. Posts associated with COVID-19 had overtaken pipeline-related posts, dominating both the hashtag graphs and imagery, so I removed the #keepcanadaworking corpus. Posts affiliated with #transmountain were also discarded, as the hashtag was largely used in relation to various races (biking, running, and car races that traverse mountain ranges), rather than with the pipeline. While there was evidence that the hashtag, #kindermorgan, was used in conjunction with other projects run by this energy company and a significant number of posts were made in Texas at Kinder Morgan headquarters, the bulk of posts were affiliated with the Trans Mountain pipeline controversy; as a result, I maintained this set. However, the issue bleed affiliated with #kindermorgan was initial evidence of the complexity of studying public pedagogy on Instagram, where overlapping issues, digital traces, and elements of the platform intersect with the substantive content of networked posts.

Data sets.

In order to explore the full scope of posts linked to the Trans Mountain controversy, I combined the posts associated with all of the queried hashtags into a comprehensive data set. Using Open Refine (*Open Refine*, n.d.), I combined all sets associated with the queried hashtags and removed duplicates. The resultant set consisted of 13,879 posts by 4,213 users from 2014 to June 2020.

At the same time, I maintained one hashtag-oriented set in order to explore issue-related public pedagogy that forms around a particular hashtag, in accordance with the concept of issue publics (Bruns & Burgess, 2011, 2015), as described in more detail in Chapter 5. Following the initial analysis of each of the hashtag-oriented sets described above, I decided to focus analysis

on the set associated with #stoptmx. The hashtag #stoptmx evidences minimal issue bleed, and its more recent, singular use in efforts to halt pipeline construction already underway provides a clear data set by which to explore issue-related public pedagogy. Further, as 637 posts produced by 193 unique users are hashtagged #stoptmx, the set provides a comprehensive yet manageable set for analysis.

Methods.

As a way into pipeline-related public pedagogy on Instagram, my analysis centers on the two primary connective tools available in the platform, hashtags and location tags, according to which the other components of posts are analyzed. As hashtags and location tags are the sole means by which users render posts searchable by those outside the user's follower networks, they carry particular significance for public pedagogy as they draw individual posts into public view, linking them to larger issue dialogues or particular locations. Drawing on existing research pointing to the role of hashtags in establishing issue publics (Bruns & Burgess, 2011, 2015; Bruns & Moe, 2014; Marres, 2015), I apply hashtag-oriented analysis as a means of exploring issue public pedagogy (Chapter 5). As less research has been done on the functioning of location tags on Instagram, I draw upon and extend hashtag-oriented analysis to location tags in efforts to explore the role of place in Instagram's public pedagogy (Chapter 6).

Hashtag analysis for issue public pedagogy (Chapter 5).

Hashtag-based analysis (Bruns & Burgess, 2011, 2015; Highfield & Leaver, 2015; Marres & Gerlitz, 2016) provides multiple means of mapping the Trans Mountain issue according to the links between hashtags and other components of Instagram posts. Hashtag analysis assumes the strategic use of hashtags on Instagram in rendering posts searchable, connecting these posts to the greater issue community or "issue public" (Bruns & Burgess, 2011, 2015; Bruns & Moe, 2014; Marres, 2015). On Instagram, issue publics form as hashtags and other "connective affordances of social media help activate the inbetween bond of publics . . . enabl[ing] expression and information sharing that liberate the individual and collective imaginations" (Papacharissi, 2015, p. 9). Bruns and Burgess (2011, 2015) have explicated how "hashtags can allow certain types of communities to emerge and form, including ad hoc publics, forming and responding very quickly in relation to a particular event or topical issue" (Highfield & Leaver, 2015, p. 9); this is likely to be the case with many of the more politically oriented hashtags explored in this study that directly address the Trans Mountain issue. An initial step in

my analysis of issue public pedagogy, therefore, is an exploration of the most frequently used hashtags affiliated with the Trans Mountain pipeline over time, as detailed in Chapter 5. By comparing the top 15 hashtags across key spikes in pipeline-related Instagram activity over time, it is possible to see how issue public pedagogy persists and shifts according to grounded events and changes to the platform.

While certain key hashtags enable issue publics to form, connective patterns of hashtag use issuefy the Trans Mountain pipeline in ways that can be considered part of Instagram's public pedagogy. Due to strategic and connective use of hashtags by users interested in participating in an issue dialogue, "co-occurrence of hashtags can be read as discourse" (Sánchez-Querubín, N. et al., 2017, p. 100) within networks of entangled actors and posts. Prominent hashtags indicate dominant connective patterns that may persist or shift over time. Less prominent hashtags may fall into clusters or patterns, revealing diverse, marginalized, and localized issue expressions, which can be analyzed in relation to settler colonialism. Considering the connective force of hashtags in shaping issue publics, therefore, I explore from a number of angles the pedagogy that forms within the #stoptmx issue public. I not only analyze co-occurrence of hashtags but also connect hashtag use to imagery and emojis in order to understand patterns and dynamics in public pedagogy across multiple tools available on Instagram, as detailed in Chapter 5. While network graphs provide initial analysis into hashtag functioning, I complement quantitative visualizations with close reading of these networks and smaller subsets of the data, including of individual posts and images, for a richer understanding of how hashtags function with other elements of the platform. Closely reading the visualizations through an anti-colonial theoretical framework, I also explore the extents to which the #stoptmx issue public pedagogy reinforces and contests settler colonialism.

Location tag analysis for place-based and place-connected public pedagogy (Chapter 6).

Analysis of Instagram posts in relation to location tags supports exploration of public pedagogy in relation to geography. Of the full set of 13,879 posts, 4,979 (36%) contain location tags; this set forms the basis for location-oriented analysis. In an initial step of analysis, manual categorization of location tags reveals how public pedagogy is structured in relation to location-based affordances on Instagram, including how toponymic selection on a platform structured in relation to settler colonialism and data gathering presents particular limits and possibilities. Next,

extending established digital methods regarding hashtag analysis (Bruns & Burgess, 2015; Highfield & Leaver, 2015; Marres & Moats, 2015) as described above, location tags are analyzed in conjunction with hashtags through a network graph. This large-scale, quantitative analysis makes visible trends, hierarchies, and centrality of issues in relation to location and identifies key locations for pipeline public pedagogy. To more closely compare the pedagogical expressions linked with key locations evident in the network graph, I present location profiles based on the posts affiliated with the location tags for two concrete locations, Burnaby Mountain and Blue River, and two more abstract, political locations, British Columbia and Canada, as described in Chapter 6. Each profile works with engagement metrics to highlight the dominant hashtag and image discourses at each location by providing the top 25 most frequently used hashtags and an image stack of the top ten most liked images associated with that location tag (Niederer & Colombo, 2019). Further, each profile is informed by a close reading of the full set of posts linked via the location tag, providing a close analysis of public pedagogy at that location that may not be captured in the dominant hashtag and visual discourses. Through this combination of location-oriented methods, it is possible to explore the dominant locative elements of pipeline public pedagogy, along with the nuances in relation to settler colonialism.

Research protocol for methodological analysis (Chapter 7).

Following analysis of public pedagogy according to the methods listed above, I return in the final chapter to my research protocol (Figure 4.1), in order to analyze the possibilities and limits of these particular methods and proposing new foundations for anti-colonial digital research.

Limits of the Methodology

While the methods described here speak to various elements of Instagram's public pedagogy, including text, imagery, hashtags, location tags, emojis, and temporal elements, there are still many components of the platform that are not addressed through these methods. These methods, for instance, do not explore post comments, which would provide valuable insight into how users' affective, cognitive, and relational responses are part of the platform's public pedagogy, indicating possibilities or restrictions for dialogue, learning, and the movement of ideas and issue positions regarding the Trans Mountain pipeline. In addition, the digital methods used here focus primarily on Instagram posts themselves, rather than the stories, videos, and reels that are also part of the platform. At the time of writing, the more ephemeral elements of

Instagram are difficult to study, requiring live capture of individual Instagram stories or their analysis via cross-posting to YouTube (Bainotti et al., 2021). Further research might take up emergent methods to consider how ephemeral elements of the platform function as part of Instagram's public pedagogy. Finally, this project does not attend to the types of user accounts contributing to Trans Mountain-oriented content, whether individual users, corporate accounts, governments, environmental groups, bots, and trolls. More specifically, evidence of foreign bots and trolls distributing pipeline-oriented content on social media ("Q&A," 2018; Varcoe, 2019) indicates that intentional spread of misinformation is likely part of Instagram's public pedagogy on this issue specifically. On Instagram, bots are typically associated with celebrities, photographers, and influencers for advertising purposes, though some also mimic the accounts of "ordinary" people (Omena et al., 2019), contributing in subtle ways to the issue dialogue. Such bots indeed generate content but also participate by commenting and liking posts. At the time of writing, emergent methods are beginning to trace the agency of bots on Instagram (Omena et al., 2019), opening possibilities for future research into how bots participate in Trans Mountain public pedagogy.

Ethical Considerations

Throughout all stages of my research, I have foregrounded ethical decision-making regarding data gathering, exploration, research process, and publication. Ethical decision making is central to a critical and anti-colonial project that

> tries to create knowledge about social media that helps understanding what is absent in the world and needs to be created (absenting absences), in order to foster participatory democracy, freedom, justice, fairness and equality. This approach neither overdoes nor underdoes research ethics. (Fuchs, 2017, p. 46)

At the time of writing, consensus supports ethical decision making (Franzke et al., 2019; Markham & Buchanan, 2017; Townsend & Wallace, 2016; van Schie, et al., 2017), particularly when digital research extends beyond quantitative methods (Fuchs, 2017) to close readings of individual or smaller sets of posts where user privacy and identity may be more easily compromised. The protection and privacy of Instagram users is critical to a discussion of the Trans Mountain controversy, particularly as users may be at risk due to the political and economic nature of the pipeline issue which has led to digital surveillance of resistors (Dafnos, 2019, 2020), including Indigenous land defenders specifically (Crosby, 2021; Harb & Henne,

2019; Plotnikoff, 2020). Though some might assert that content published as public on Instagram is fair game for researchers, particularly posts that are promoted to public dialogue through hashtags or location tags, ethical consensus draws attention to the fact that such posts were not made public for research or research publication through informed consent and thus require ethical treatment.

As it is unreasonable to procure "informed consent" by all Instagram users whose data is included in my study, I consistently anonymize my data and ensure I account for vulnerability of the users and key populations reflected in my study when representing results. It is "highly impractical and maybe even impossible to get informed consent" (van Schie, et al., 2017, p. 194), not only because of the large scale of the data set, but also because not all Instagram profiles represent actual users. Profiles may represent bots, organizations, inactive profiles, deceased users, and avatars or fake profiles, none of which could provide informed consent. Basing research only on those who do provide permission would skew research results, as all of these other actors are functioning in the online space and thus contribute to public pedagogy. Due to these complications, consensus accepts that in general, harm prevention is more important than consent in digital research. Guiding my representation of findings, therefore, is the question: "Does the connection between one's online data and one's physical person enable psychological, economic or physical, harm?" (Markham & Buchanan, 2017).

I apply a number of practices to ensure privacy and prevent harm to individual users. Data are anonymized upon download from the instagram-scraper (arc298, 2020), so at no point do I know the identities of individual users, unless they expressly identify themselves in the content of their posts. I either maintain or intensify this privacy throughout the research process. Where data are aggregated into network graphs, Instagram users remain unidentifiable, so privacy and security are not issues. In directly quoting individual Instagram posts, I limit the amount of content shared to ensure privacy, unless a post is clearly intended for public promotion (i.e. by a campaign account) or has been widely reshared. In quoting, I attribute content via the user identification numbers provided through instagram-scraper, along with the year of the post to provide temporal context. By attributing posts numerically, I retain the links back to the original data set without revealing individual identities. Further, I attend to issues stemming from the visual nature of Instagram, which presents particular ethical challenges as "visual content might …reveal additional information about an individual than tweeting,

including background details not necessarily considered by the user when posting but which are visible to other users" (Highfield & Leaver, 2016, p. 57). To ensure privacy and prevent the searchability of images, visual data are represented only in aggregate, whether as network graphs or image stacks. Where I closely analyze an individual image, it is described rather than replicated. These methods not only ensure privacy, but in the context of colonial consumption and appropriation of Indigenous visibility, I follow Baloy (2016) in understanding these ethical visual representations of data to be anti-colonial. Baloy articulates her own efforts to undermine the settler gaze by describing rather than replicating Indigenous art pieces:

> I do not include photos of the [Indigenous] art pieces I describe. There is a long history of settler peoples circulating Indigenous art without permission, attribution, or compensation. These practices support the kinds of settler-spectatorship and passive consumption of Indigeneity I am critiquing in this essay. (Baloy, 2016a, p. 200)

Similarly, I understand that careful and ethical representation of visual social media data can contribute to anti-colonial digital methods that not only work to protect users against surveillance but also undermine colonial representational regimes.

In these ways, therefore, this study aims for ethical and anti-colonial protection of Instagram users by carefully attending to their privacy. By aggregating and anonymizing both textual and visual data, while maintaining links to the raw data set, it is possible to work against surveillance and consumption of Instagram users' creative production, unjust representation within colonial regimes, and potential harm to vulnerable users while conducting anti-colonial research.

Chapter 5 - Networked, Aesthetic, and Monstrous: Trans Mountain Issue Public Pedagogy

#stoptmx, #notmx, #transmountainpipeline, #buildkm, #stopkm, #tinyhousewarriors. Trans Mountain pipeline-related hashtags connect Instagram posts to larger issue conversations, making posts searchable and returning them on hashtag-curated lists. Around each hashtag, issue publics form in clusters of networked posts. These publics are multiple and overlapping, shifting over time, and connected to a variety of other issue publics and follower lists. As a primary connective tool, therefore, the hashtag provides the basis for understanding public pedagogy on Instagram as platformed *issue public pedagogy*.

Examining the pedagogy among issue publics on Instagram involves tracing distributed and connective public pedagogy among networked issue publics shaped in relation to Instagram's affordances, where multiple actors may adhere to or diverge from dominant settler colonial patterns in a variety of ways. An analysis of issue public pedagogy on Instagram may therefore follow established social media research on hashtag analysis, (Bruns & Burgess, 2011, 2015; Highfield & Leaver, 2015; Marres & Gerlitz, 2016) that presumes the strategic and connective use of hashtags, which may be understood to be pedagogical. Hashtags interact with other Instagram affordances such as timestamps, frequency counts, imagery, emojis, and text in a multifaceted public pedagogy, demanding multiple methods of analysis.

A blend of hashtag-oriented analyses therefore enable a robust understanding of issue public pedagogy that accounts for temporal shifts, dominant issue discourses, patterns and heterogeneity among hashtag use, as well as the interactions between hashtags and other platform affordances such as images and emoijs. Following a brief reintroduction to issue publics, therefore, this chapter combines a variety of digital methods with close reading practices to multiply map the functioning of issue public pedagogy on Instagram, centering analysis around the connective tool of the hashtag. Throughout, digital methods drive the analysis, while close reading is applied where questions emerge from the data, requiring deeper investigation and at times insights from the texts of individual Instagram posts. For a vision of Instagram's flexible capacity to host shifts in issue publics over time, I first turn to the full set of 13,879 Instagram posts, tracing fluctuations in the most frequently used hashtags. Next, I zero in on the issue public pedagogy particular to #stoptmx by examining the network of relations surrounding the hashtag. A co-hashtag analysis first shows how connective patterns of hashtag use enable

issuefication of the Trans Mountain pipeline. Recognizing that visual communication is primary on Instagram, an image-hashtag network subsequently gives insight into the aggregate meanings of images that arise within issue public pedagogy. Finally, an emoji-hashtag network links the pictorial elements of hashtags and text to the issue network, providing an initial exploration of how emojis draw affect, embodiment, and situatedness into the issue.

Issue Publics

Foundational to understanding public pedagogy on Instagram is the conceptualization of how publics form on networked media around particular issues (Bruns & Burgess, 2015; Bruns & Moe, 2014; Marres, 2015). An issue public is "a distributed discussion between more or less large groups of users, who do not need to be connected through existing 'follower' networks" (Bruns & Burgess, 2015, p. 13). Issue publics instead form ad hoc through affordances such as hashtags, which connect posts to specific controversies such as the Trans Mountain pipeline project. Around hashtags collect both visual and textual issue expressions, shared by individual users but intentionally linked to diverse publics who may view, surveil, respond to, or affectively connect with posts as an issue evolves and passes. Users may choose to follow specific hashtags in order to stay up-to-date on posts pertaining to key issues of interest without having to follow those who post. As part of a platformed network of publics, however, users can also view in their feeds networked posts shared by those they are following; as such, followers are linked with issue publics and passively exposed to issue-related public pedagogy despite not seeking it out by searching hashtags. A large number of actors may contribute to public discourse through Instagram hashtags, whether by reinforcing dominant messaging or "appropriating social media as a tool to articulate a counter narrative and to contest selective or dismissive framing" (Callison & Hermida, 2015, p. 697). Despite these agencies, it would be naïve to deny neoliberal influences on issue publics, including how "net-based communication frequently privileges the net savvy, fragments conversation, and occurs in commercially driven spaces" (Papacharissi, 2015, p. 26), which inevitably influence the issues and types of pedagogies that trend and are used. Further, algorithms are undeniably actors in issue publics (Gillespie, 2014), whether by promoting hashtags during post creation or hierarchizing content for search and display. In the context of online social networks such as on Instagram, this complexity of networked actors demands a pluralistic and flexible concept of publics to comprehend the role that everyday

creativity and communication may play within them (Bruns et al., 2011, p. 285) to shape public pedagogy.

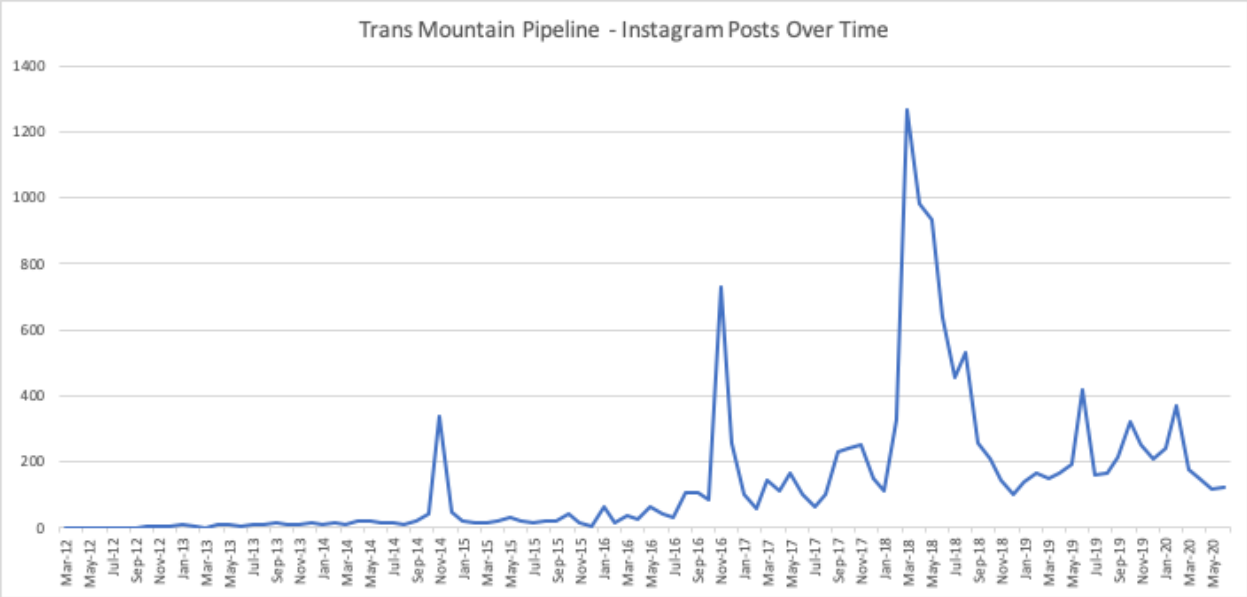
Context: the flow of issue publics.

Issue publics are not stable but bond and diffuse over time. With an enduring issue such as the Trans Mountain pipeline controversy, issue publics inevitably shift in relation to both issue dynamics and changes in Instagram affordances, as the flexibility of the platform enables users to connect the issue in different ways over time. Various actors, discourses, images, actions, connective hashtags, and geographies rise to prominence and fade through a fluid platformed public pedagogy around the pipeline issue as the surrounding political and cultural climate shifts. Enabling broad analysis, mapping hashtag prominence is one way to trace dominant public pedagogy over time. By placing the full set of 13,879 posts on a timeline, a number of spikes in activity become evident (Figure 5.1). Isolating five spikes in Instagram activity between 2014 and 2020, it is possible to trace key shifts in dominant discourses over time by mapping the top fifteen hashtags associated with each spike (Figure 5.2) using the tool, RankFlow (Rieder & Uechi, n.d.). While diversity among posts inevitably persists beneath the broad analysis provided by this visualization, those dominant narratives become evident that hold potential to perform and reflect public thought.

The five highest spikes in Figure 5.1 align with key events in the Trans Mountain pipeline's timeline. In November 2014, protestors formed a camp on Burnaby Mountain in the line of the pipeline route, resulting in a number of arrests. November 2016 saw the approval of the pipeline by Prime Minister Justin Trudeau and his cabinet, preceded by and resulting in further protests and demonstrations. In spring 2018, pipeline resistance reached a peak with Trudeau's May 2018 purchase of the pipeline immanent and the Federal Court of Appeal dismissing BC's complaint against the National Energy Board for enabling energy company (and then pipeline-builder) Kinder Morgan to bypass local bylaws. Spring 2018 also saw the completion of Kwekwecnewtxw, the Coast Salish watch house on Burnaby Mountain, which consolidated resistance and established ongoing pipeline monitoring. High profile arrests of federal Green Party leader, Elizabeth May, and NDP Member of Parliament, Kennedy Stewart, drew further public attention to the resistance on Burnaby Mountain. After further appeals and delays, Trudeau again approved the pipeline expansion on 19 June 2019, one day after announcing a national climate emergency, resulting in significant public critique. Finally, in

February 2020 the Federal Court of Appeal rejected challenges from Coldwater Indian Band, and the Trans Mountain continued construction.

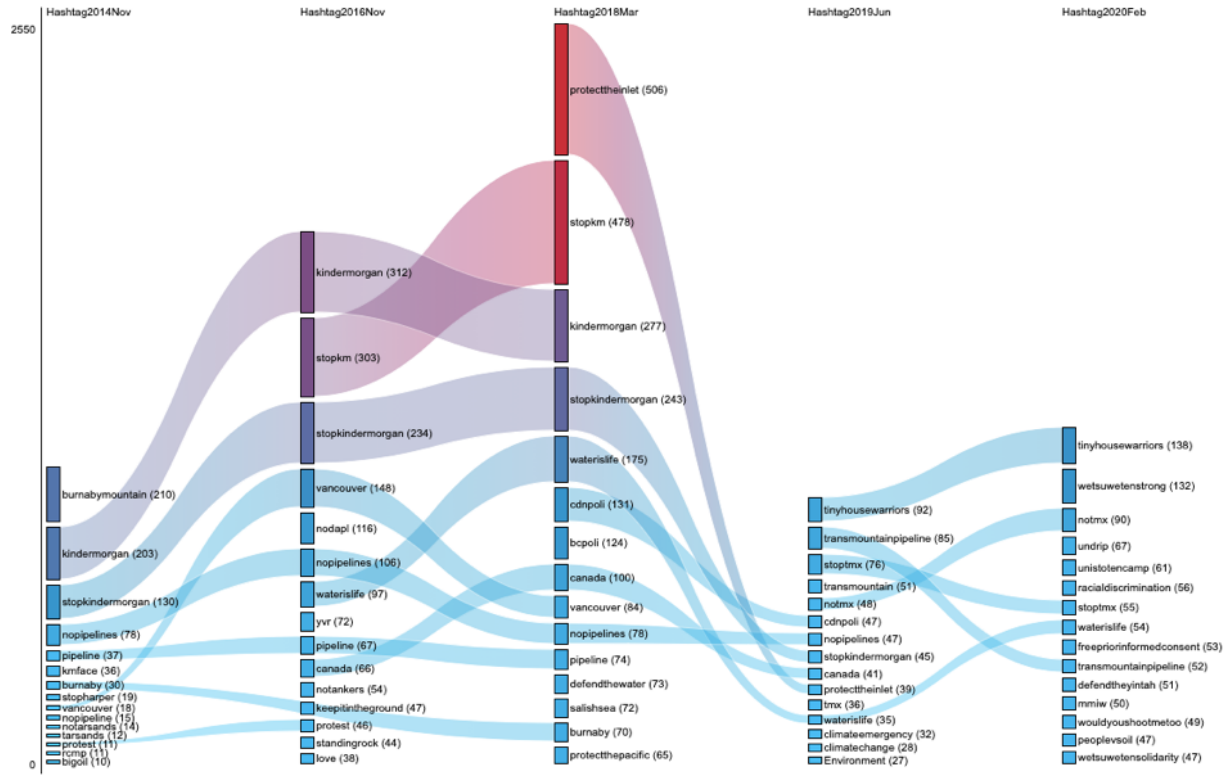
Figure 5.1 – Trans Mountain Pipeline – Instagram Posts Over Time



Throughout this time span, significant shifts and some consistencies among the top fifteen hashtags show the nature of dominant connective public pedagogy on Instagram, which is unfailingly anti-pipeline, as displayed in Figure 5.2. Some changes are practical: while energy company, Kinder Morgan, is prominent in hashtags early on (#stopkindermorgan, #stopkm), the company largely disappears from hashtag use after the pipeline's purchase for $4.5 billion by the Canadian government in 2018. Other shifts are geographical; while the locus of pipeline controversy is initially at Burnaby, Vancouver, and on the Pacific coast generally, geographical hashtags fade in favor of issue-related tags in the later sets. These changes may reflect the decrease in large-scale demonstrations in the Vancouver area, but they may also generalize the pipeline issue beyond a specific locality towards broader issues of climate change (#climateemergency, #climatechange) and Indigenous rights (#undrip, #freepriorinformedconsent, #mmiw). Geographical links to related issues similarly shift. Initially, the Trans Mountain is linked with #standingrock and #dapl, for the Dakota Access Pipeline in the United States, expressing a transnational understanding of Indigenous sovereignty in relation to a concurrent issue. In 2016, this connection was made explicit by protest organizers

in Burnaby and Vancouver, who expressed “solidarity with Indigenous water protectors at Standing Rock as they struggle to stop the Dakota Access Pipeline” (*Stop Kinder Morgan: No Consent No Pipeline | Facebook*, 2016), a statement which might be reflected in the hashtag set. By 2020, however, the Trans Mountain pipeline is linked more closely to the resistance to the Coastal Gas Link pipeline in Wet’suwet’en via #wetsuwetenstrong, #unistotencamp, #defendtheyintah, and #wetsuwetensolidarity. Links to Wet’suwet’en address the sovereignty of Indigenous peoples in relation to the Canadian nation-state and its support of extractive industries. With the 2020 blockades of train lines across the nation as part of a move to “Shut Down Canada” in support of Wet’suwet’en sovereignty, these connections across Indigenous movements are timely, significant, and potentially strategic, through a pedagogy that is not only discursive but action-oriented.

Figure 5.2 – Top 15 Hashtags Over Time



Across all time periods, the most consistent hashtag is #waterislife, which persists from 2016 to 2020. A translation of the Lakota phrase, Mní Wičóni, #waterislife trended on Twitter during the Standing Rock resistance to the Dakota Access pipeline (Horne, 2016) and is associated with protection of land and water, particularly in relation to extractive industries. The phrase "attests to traditional Indigenous beliefs that water is as much a *material* resource (needed for health, wellness, and irrigation, among other things) as it is a contiguous *other-than-human being* to which people must relate with equity and kindness" (Brígido-Corachán, 2017, p. 74). By emphasizing the relationality between everything, the phrase "undermines the very basis of extractive, consumerist culture. If I am the relative of all other beings then I am responsible for their well-being. In blunt terms – I don't rape them" (Jewett & Garavan, 2019, p. 50). Via its inherent relationality, the phrase evokes its opposites – colonial violence and intergenerational trauma – but in ways that activate transformation, promoting healing through the reconnection with non-human beings and elements (Brígido-Corachán, 2017; Jewett & Garavan, 2019). The relationality embedded in the phrase also constitutes those who use it not as protestors or activists but as water protectors, a phrase preferred at Standing Rock and other Indigenous sites of resistance. The persistence of #waterislife throughout anti-pipeline pedagogy may not indicate full comprehension of the phrase, but it does gesture towards Indigenous centrality of some form in pipeline resistance, whether of leadership, worldview, or decolonial aims. While other issues shift around it, the phrase lends consistency to an Indigenous or anti-colonial thread throughout the pipeline's public pedagogy.

Weaving pipeline-related geographies, solidarities, and issues in various patterns over time, dominant hashtags reveal how issue public pedagogy is mobile and fluid on Instagram, with flexibility to ground an issue in particular locations or dislocate it to form trans-local solidarities in relation to broader structural issues, such as Indigenous struggles for sovereignty both within Canada's borders and beyond. Few hashtag threads persist throughout 2014-2020, yet the Trans Mountain issue is assiduously discussed according to emergent related issues, indicating the potential for public pedagogy to not only be fluid and responsive but also strategic in linking issues together to affect change. Throughout, the adopted hashtag #waterislife, connects to related assertions of sovereignty and Indigenous worldviews that would engender radical change to pipeline-related decision-making and construction, should they be applied. The translation of this phrase from Standing Rock to the Trans Mountain reveals how public

pedagogy on Instagram is situated within networks of relations, where hashtags contain meaningful subtexts, functioning not only as connecting points but also perhaps as bibliographic citations, crediting and extending the online pedagogies of others elsewhere. Despite these nuances, the dominant hashtag patterns reveal limited differentiation within Trans Mountain issue public pedagogy. A more detailed hashtag analysis is necessary to explore potential diversity and nuance available on Instagram.

Profile of #stoptmx: Issue Public Pedagogy

While the hashtag frequency visualization provides a window into dominant issue discourses and shifts among Trans Mountain issue publics, a close examination of one issue public, connected via a single hashtag, provides insight into the particulars of issue public pedagogy on Instagram, following research that points to the role of hashtags in establishing issue publics (Bruns & Burgess, 2011, 2015; Bruns & Moe, 2014; Highfield & Leaver, 2015; Marres, 2015). #stoptmx offers a discrete issue public whose pedagogy can be explored from a variety of angles. As a recent and prominent anti-pipeline hashtag evident in the graph above, #stoptmx is unlikely to bleed into other issues, as the Kinder Morgan-related hashtags might. In total, 637 posts produced by 193 unique users are hashtagged #stoptmx, providing a comprehensive yet manageable set for analysis. Digital methods enable exploration of how issue expression and Instagram's affordances mutually constitute one another within #stoptmx issue public pedagogy, according to a multiplication of network maps that work with various components of the platform through co-hashtag analysis, image-hashtag analysis, and emoji-hashtag analysis. In each analysis, I turn to post texts and images to deepen and nuance the discussion, as well as to address questions raised by the quantitative analysis.

Hardly homogeneous: Co-hashtag analysis.

Co-hashtag analysis gives insight into how Instagram users connect #stoptmx to a variety of other topics, as clusters of hashtags reveal diverse, marginalized, and localized issue expressions, which provide a vision of the #stoptmx issue public pedagogy that can be analyzed in relation to settler colonialism. In order to conduct a co-hashtag analysis for Figure 5.3,[3] I used

[3] How to read a co-hashtag graph:

1. **Size = prominence**: The size of a node and its accompanying text indicates the frequency with which a hashtag is used. So, #transmountain, #canada, #stopkm, and #tinyhousewarriors are the most popular hashtags used in relation to the pipeline controversy.

the visualization software Gephi (Bastian et al., 2009) to highlight frequently used hashtags via the size of nodes and accompanying text. Gephi's ForceAtlas2 algorithm visualizes associations between hashtags frequently used in conjunction through proximity and thickness of edges between nodes. Finally, a modularity algorithm in Gephi identifies the density of connections between posts and clusters by color accordingly. In order to identify patterns in the posts and improve the readability of the network graph,[4] I removed hashtags from the network that were used fewer than three times.

Highlighted hashtags and clusters provide the basis for my analysis, which follows and extends established research in reading networks (Venturini et al., 2015). In a network graph, size matters; frequency of hashtag use – featured by size of node and accompanying text – indicates prominence within the graph. Centrality of a node, whether "global (referred to the whole network) or local (referred to a single cluster)" (Venturini et al., 2015), is also key, indicating links to various regions of the network (global) or within one cluster (local). Relatedly, bridging nodes or clusters link between different parts of the network, though they may not be central. Analysis therefore also focuses on density and spatialization of colored clusters and subclusters, where large gaps between clusters indicate opposition and small gaps indicate distinctions without opposition. Clusters structured as stars are unique from those that are interconnected, as they indicate collections gathered around an influential hub.

Each colored cluster is named and described according to the hashtags contained within it, capturing its distinct nature. At the same time, the complexity of the clusters and opacity of the hashtags when extracted from the full posts at times raises questions for interpretation; in

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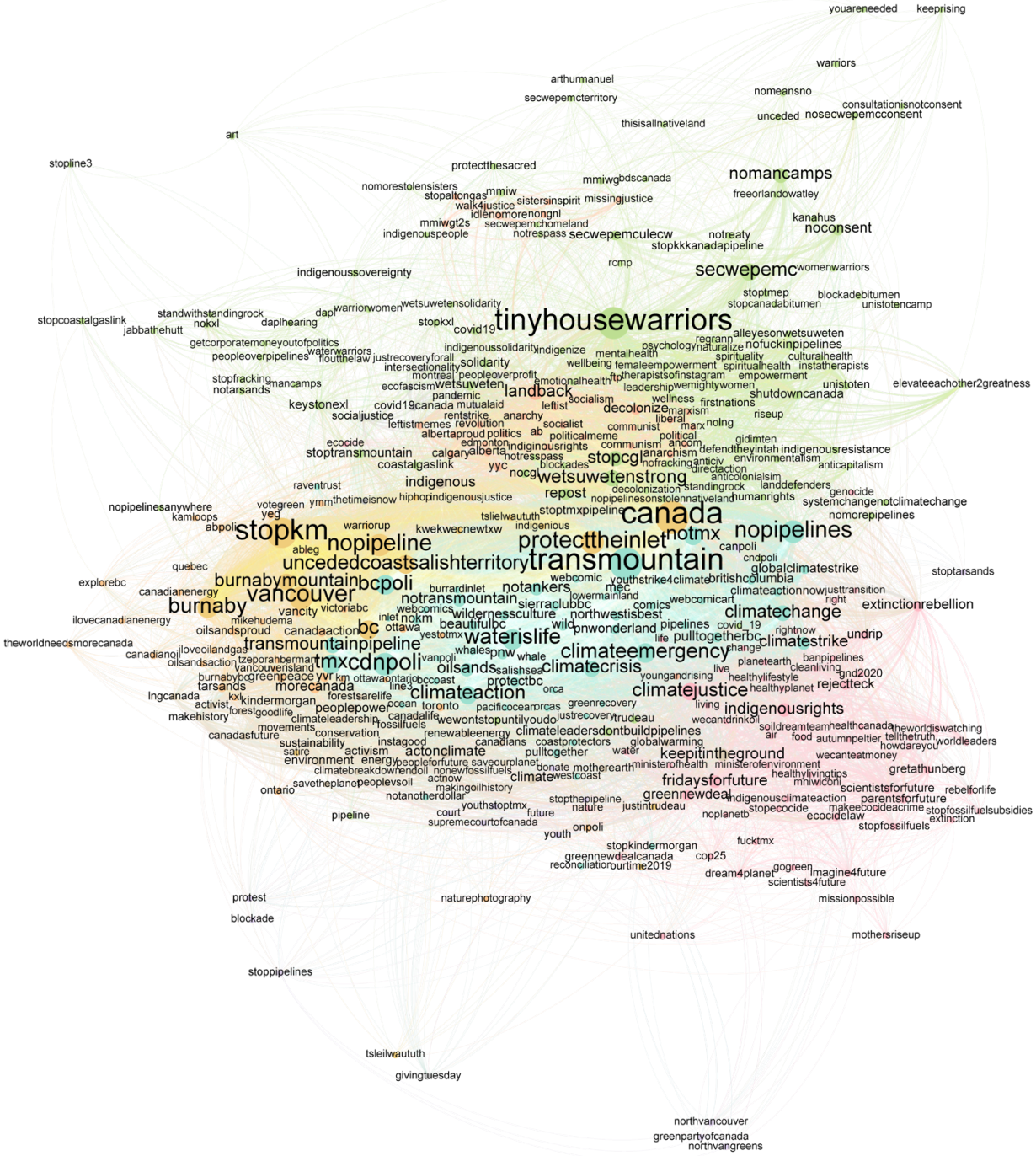
2. **Proximity and thickness of edges = associations**: Nodes appear closer together and are linked with thicker edges when they have stronger ties to one another (i.e. are more often used together in a single Instagram post).
3. **Centrality = connections**: Centrality of a node indicates its connectedness to various regions either of the entire graph or to a subcluster within which it is central. So, #transmountain is central to the entire network, while #tinyhousewarriors is central to the green cluster.
4. **Gaps = distinction or opposition**: Large gaps between clusters indicate opposition, while small gaps indicate distinction. In this graph, the clearest gap is between the north and the south of the network, where the two halves are primarily linked through #canada.
5. **Colors = issue clusters**: Each cluster is algorithmically colored according to how frequently hashtags tend to be used together in individual Instagram posts, showing unique issue clusters.

[4] Gephi is most effective at enabling exploration of a network through interaction in a way that is not replicable in a two-dimensional graph. In Gephi, it is possible to hover over a node to see its direct connections, view only one colored issue cluster at a time to explore its inner workings, recolor and resize elements of the graph for various purposes, and zoom into any element at will. In analyzing the network, I worked with the "live" graph in Gephi, and created Figure 5.3 as a visual summary.

Figure 5.3 – #stoptmx Co-hashtag Network



these cases, I at times build upon network analysis by returning to the post texts and accompanying images to understand the meanings of various hashtags in context. The clusters present in the #stopkm co-hashtag graph may be thus summarized:

a) General Anti-pipeline Resistance (gold)
b) Tiny House Warriors (green), with a subcluster focused on Land Back[5] (red) and connecting to missing and murdered Indigenous women
c) Wilderness Protection in the Pacific Northwest (turquoise)
d) Climate Change, with a spectrum of intermingled subclusters moving from Climate Justice (pink), through Climate/Environmental Activism (brown), to Pro-Oil (orange)

While the clusters are overlapping, with various colored nodes scattered throughout the network signifying intermixed concerns, the clusters indicate the contours of the pipeline issue as expressed through the connective force of hashtags.

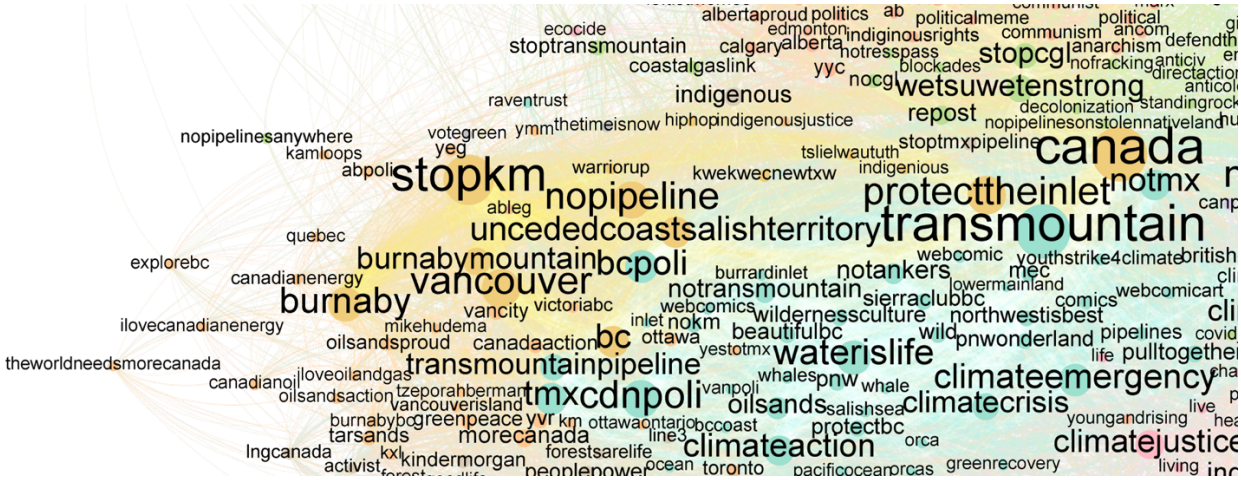
General anti-pipeline resistance (gold). Figure 5.4

Immediately apparent within the network graph is the centrality of anti-pipeline resistance, depicted in Figure 5.4. Anti-pipeline hashtags predominate, including #stopkm, #nopipeline, and #protecttheinlet, the last of which references an Indigenous-led campaign to protect the waters around the Kinder Morgan Westridge Marine Terminal in the Burrard Inlet. Hashtags locate anti-pipeline resistance predominantly within the BC cities of #burnaby and #vancouver, which are located on #uncededcoastsalishterritory, including on the lands of the #tsleilwaututh Nation. Indigenous resistance is key to this central cluster, indicated not only via these territorial acknowledgements but also through the general hashtags, #indigenous and #indigenousjustice; a reference to the Coast Salish Watch house, #kwekwecnewtxw, located on Burnaby Mountain; and #warriorup, a signal of Indigenous water protection and resistance.

Within this central cluster, #canada functions as a bridging node between the north and south sectors of the full network. The hashtag indicates the national nature of the pipeline issue, but as a connector, it also links the various distinct issue clusters – whether concerned with climate, Indigenous rights, energy, or wilderness protection – to the nation state. The hashtag #canada connects geographically distributed issues under national jurisdiction, perhaps indicating the structural nature of pipeline-related issues within Canada's colonial system. Notably, hashtags directly related to national decision-makers and policies are not immediately proximal to #canada but are spread throughout the network. For instance, Prime

[5] Land Back is a movement to claim Indigenous sovereignty and jurisdiction over the land (Yellowhead Institute, 2019).

Figure 5.4 – General Anti-pipeline Resistance (gold)



Minister Justin Trudeau is most closely linked to climate issues (#justintrudeau, #trudeau, #climateleadersdontbuildpipelines), in the southern section of the network. Federal policies regarding relations with Indigenous peoples are similarly captured in the southern climate clusters via references to Canada's Truth and Reconciliation Commission (#reconciliation) and Canada's adoption of the United Nations Declaration on the Rights of Indigenous Peoples (#undrip). References to #landback, #shutdowncanada, #indigenousrights, and #thisisallnativeland are positioned proximal to the Tiny House Warriors (green), evoking Indigenous assertions of sovereignty in response to national colonial violences. In this way, Canada becomes a focal point for #stoptmx issue public pedagogy through its interconnectedness with heterogeneous pipeline-related issues.

While the remaining clusters exhibit diverse issue positions regarding settler colonialism, the central, bridging anti-pipeline cluster exhibits how Instagram is primarily used for pipeline resistance, despite how Instagram is often touted as a shiny, apolitical, and positive platform. Publics apply the connective affordance of the hashtag to both foreground Indigenous concerns and invoke the nation-state as central to the pipeline controversy, pedagogically articulating the structural nature of the pipeline issue as bound up in colonial relations and decision-making.

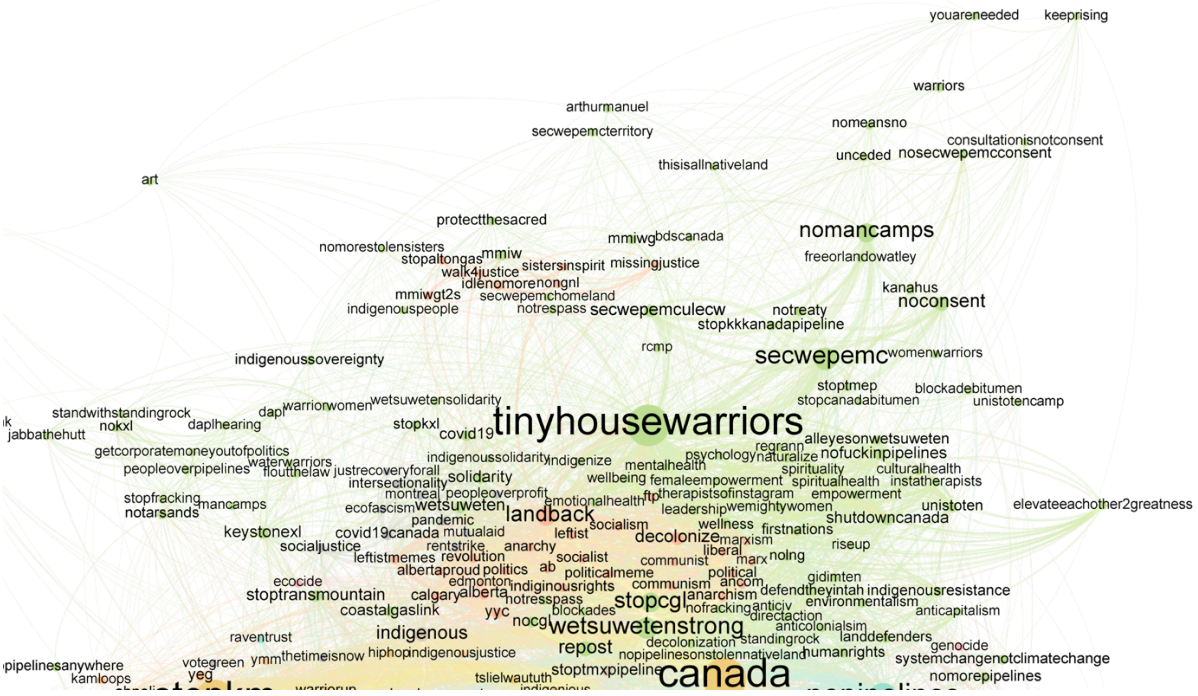
Tiny House Warriors (green). Figure 5.5

Nearly half of the network graph (Figure 5.5) is centered around the hashtag, #tinyhousewarriors, which references a group of Secwepemc in central BC, who have built tiny houses along the pipeline route in order to assert jurisdiction over their lands. The Tiny House Warriors purposefully connect pipeline resistance to Indigenous sovereignty, healing in the face of colonial violence, and energy transition:

> We have never provided and will never provide our collective free, prior and informed consent – the minimal international standard – to the Trans Mountain Pipeline Project. The Tiny House Warrior movement is the start of re-establishing village sites and asserting our authority over our unceded Territories. Each tiny house will provide housing to Secwepemc families facing a housing crisis due to deliberate colonial impoverishment. Each home will eventually be installed with off-the-grid solar power. (*Tiny House Warriors – Our Land Is Home*, 2020)

These concerns are evident in the network graph, arrayed around the central node of #tinyhousewarriors in a star-like formation, indicating the centrality of this movement to the cluster. Subclusters constitute points of the star, indicating a number of related concerns.

Figure 5.5 – Tiny House Warriors (green)



Issues relating to Indigenous sovereignty underlie many components of the Tiny House Warriors cluster. On the top right, the hashtag #nomancamps is central to a number of hashtags alluding to Indigenous consent: #nomeansno, #consultationisnotconsent, #nosecwepemcconsent, #noconsent, and #notreaty. Man camps, or the temporary worker camps associated with pipeline construction, are known for increasing sexual violence, rape, disappearance, and murder of Indigenous women in proximal communities (Gilio-Whitaker, 2019; Sweet, 2013; Whyte, 2017). These related issues are evident in the neighboring hashtags mentioning missing and murdered Indigenous women, girls, trans, and two spirited people (#mmiw, #mmiwg, #mmiwgt2s), known as "stolen sisters" (#nomorestolensisters). The connections between consent and missing and murdered Indigenous women link gendered violence with colonial land theft. References to consent invoke the UN Declaration of the Rights of Indigenous Peoples (UNDRIP), thus revealing the pedagogical potential for Instagram to host subtexts and citations via hashtags. Notably, UNDRIP recognizes the marginalization of Indigenous women, calling for their express participation in in processes related to climate change and human rights in Priority 5 (*United Nations Declaration on the Rights of Indigenous Peoples*, 2007). Further, Article 8 calls for states to honor claims to "lands, territories and resources which [Indigenous peoples] have traditionally owned or otherwise occupied or used, and which have been confiscated, taken, occupied, used or damaged without their free, prior and informed consent" (*United Nations Declaration on the Rights of Indigenous Peoples*, 2007). In critiquing consultation processes in relation to consent, this cluster adheres to Indigenous critiques of contemporary forms of environmental governance, which

> offer specific forms of recognition that are inscribed from the outset, narrowly defining the field of regulatory interventions in ways that leave intact the broader relations underlying environmental disparity… [and] offering circumscribed channels for historically marginalised communities to enact political and legal claims. (McCreary & Milligan, 2018; see also Coulthard, 2014)

Considering Secwepemcylecw (Secwepemc territory, or #secwepemchomeland) has never been ceded to the Canadian government, allusions to consent raise the pipeline issue to the level of international law and policy, alluding to Indigenous self-government and a nation-to-nation relationship with the Canadian state (*Department of Justice - Principles Respecting the Government of Canada's Relationship with Indigenous Peoples*, 2017). Here, we see the settler

colonial goal of attaining territory via Indigenous dispossession, where Indigenous peoples are put in the complex position of "fighting against the whims of the State not only to protect their lands but also their continued existence as nations" (Gilio-Whitaker, 2019, p. 24). Frequent references to Secwepemc land and identity asserts this nationhood in opposition to a nation-state constituted as not only hetero-patriarchal but also white supremacist and extractive: #stopkkkanadapipeline. Taken together, the hashtags in this set connect a decolonial critique of Canada with the collected personal experiences of violence by women, assertions of Secwepemc sovereignty, and appeals to international policy in a complex public pedagogy.

A further decolonial expression of Indigenous sovereignty is evident in the heterogeneous subclusters connected between #tinyhousewarriors and the two hashtags, #stopcgl and #wetsuwetenstrong, which link the Trans Mountain issue in Secwepemc territory to anti-pipeline resistance at Unist'ot'en. The linked issues evidence #solidarity, specifically #indigenoussolidarity, in response to ongoing extractive projects conducted on both territories without consent. This Indigenous solidarity reverberates across the rest of the Tiny House Warriors cluster, particularly through similar references to Standing Rock (#standwithstandingrock, #daplhearing). Similar to the Tiny House Warriors, the Wet'suwet'en have built camps and blockades along a natural gas pipeline route. The Wet'suwet'en assert that pipeline construction is moving forward without their consent; while the Band Council, established by the Indian Act, has approved the Coastal GasLink pipeline, the Hereditary Chiefs – whose authority was established via the 1993 Delgamuukw case – have not. Similarly, many Band Councils on Secwepemc territory have approved the Trans Mountain pipeline. Despite these approvals, Indigenous critics question the authority of Indian Act Chiefs and Band Councils to make decisions on behalf of Indigenous nations. Indigenous leaders established under the Indian Act are understood to be problematic insofar as they receive their power directly from the Canadian government, and their jurisdiction is only inclusive of their small reserve lands (A. Manuel & Derrickson, 2017, p. 119). Arthur Manuel, father of Kanahus Manuel, a leader of the Tiny House Warriors – both of whom are tagged in this cluster – asserts that "[f]ailing a robust hereditary chief system, it is up to the people themselves to make decisions collectively in large public meetings that are based not on the band, but on the nation. Because finally, it is the grassroots people who are collectively the indisputable title holders of our national territories" (A. Manuel & Derrickson, 2017, p. 120). It is no surprise, therefore, that

the more recent Indigenous movement for #landback creates a prominent subcluster, along with the key hashtag #decolonize. By linking to Wet'suwet'en resistance, therefore, hashtags not only establish Indigenous solidarity networks but also question colonial governance, which structurally undermines Indigenous sovereignty. These links take Secwepemc resistance beyond a NIMBY ("not in my backyard") approach to a broader Indigenous defense of territory against extractivism (see Temper, 2019). Within issue public pedagogy, therefore, this cluster shows how the hashtag – as a single tool – can pedagogically function both as a networking device and as a means of indexing individual cases within a robust evidence base articulating a structural issue. It is not only #solidarity, therefore, that is enacted here, but also arguments for #decolonization, #anticolonialism, #anticapitalism, and #humanrights.

Embedded within this cluster of decolonial solidarity are a number of hashtags asserting health and wellbeing, including of women particularly. The pipeline issue is political, but it also clearly connects to #culturalhealth, #spirituality, #spiritualhealth, #mentalhealth, #emotionalhealth, and #wellbeing, and Instagram's flexibility as a platform enables these political and personal layers to emerge. While the emphasis on health may indicate activist concerns for self care, it may also gesture towards the decolonial healing and resurgence that accompanies refusing colonial violence and asserting Indigenous sovereignty, knowledges, and practices (Alfred & Corntassel, 2005; Corntassel, 2012; Lane, 2018; L. B. Simpson, 2014; Temper, 2019). In fact, in examining the text of the tweets, these hashtags are largely affiliated with a multiply "regrammed" post, originally by @wemightywomen, which creates a portrait of Indigenous leadership:

> I have so much respect for Kanahus Manuel @kanahus.tattoos, a mighty woman who identifies first and foremost as a mother. She is also a fierce Indigenous matriarchal protector of land, water and LIFE. Kanahus is a Tiny House Warrior, a traditional birth keeper, a super talented traditional tattoo artist, and a granddaughter, daughter and sister.
> .
> For those of us more colonized in the head and heart, to listen to Kanahus and see her in action is to remember and reconnect with what being human is about – Respecting and Protecting LIFE – not just the human kind. This is very different from the colonist greed-driven fight for the "right" to destroy life via so-called economic "progress" and "development" projects – projects that contribute to the ongoing genocide of Indigenous

> peoples (and everyone else, since we are all connected and interdependent). The colonist mindset struggles to SEE this because part of colonization is to not think things through. There also exists a lack of CARE that is inherent in the colonist way. .When we center Indigenous voices of the land we live on, everybody wins. (8443260866, 2020)

In conjunction with the holistic health-oriented hashtags listed above, the post references family, traditional cultural practices, Indigenous orientations towards more-than-human life, and ethics of care, explicitly set up in opposition to a colonialist mindset. In "Re-envisioning Resurgence," Corntassel (2012) makes plain the "linkages between colonialism, cultural harm, and the disintegration of community health and well-being" (p. 88), visioning decolonizing praxis within everyday, place-based cultural practices. Though decolonial in orientation, resurgence paradoxically bypasses colonization, refusing it as the primary reference point and returning instead to Indigenous knowledges and freedom (Alfred & Corntassel, 2005, p. 601). So, while it has structural implications, resurgence is linked with individual and community cultural health and wellbeing:

> Indigenous pathways of authentic action and freedom struggle start with people transcending colonialism on an individual basis – a strength that soon reverberates outward from the self to family, clan, community and into all of the broader relationships that form an Indigenous existence. In this way, Indigenousness is reconstructed, reshaped and actively lived as resurgence against the dispossessing and demeaning processes of annihilation that are inherent to colonialism. (Alfred & Corntassel, 2005, p. 612)

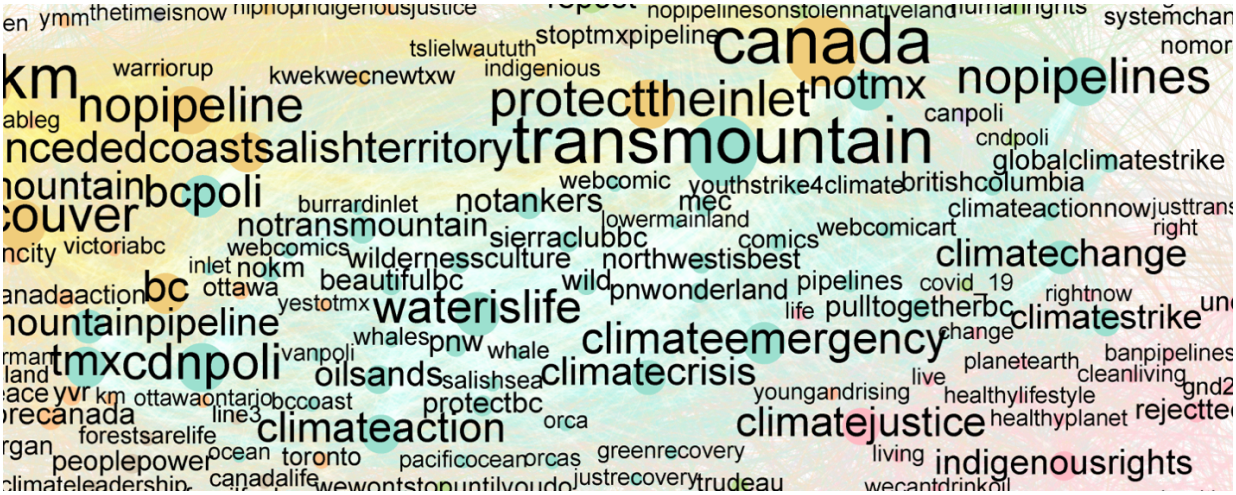
In this context, the hashtags #empowerment and #elevateeachother2greatness, when used in conjunction with the decolonial and anti-pipeline hashtags, indicate Indigenous vitality through a flexible public pedagogy that encompasses personal experiences and political aims.

Taken together, the hashtags in the Tiny House Warriors reflect diverse pedagogical usages, including reinforcement of Secwepemc territory outside of colonial boundaries through hashtagged land acknowledgments such as #secwepemcylecw; invocation of international law and policy via #undrip; strategic and solidarity connections to Wet'suwet'en and other Land Back movements; and promotion of Indigenous health and wellbeing. As a single tool, the hashtag plays various pedagogic functions that contribute to both decolonial critique and Indigenous resurgence, contributing expressions of both resistance and freedom.

Wilderness protection in the Pacific Northwest (turquoise). Figure 5.6

Anti-pipeline pedagogy takes on a localized wilderness-orientation in a central, densely interconnected cluster, depicted in Figure 5.6. While the Indigenous, pipeline-resistant hashtag, #waterislife, is dominant in this cluster, few other hashtags indicate explicitly Indigenous or anti-colonial concerns. Rather, the hashtags #northwestisbest, #wildernessculture, and #pnwonderland (where "pnw" is short for "Pacific Northwest") emphasize recreation-oriented wilderness lifestyles, located within BC and on the west coast specifically, as indicated by: #salishsea, #pacificocean, #pnw, #bccoast, #burrardinlet, and #lowermainland. Recreation and environmental preservation collide in this coastal-oriented cluster, evoking colonial orientations towards the land. For instance, #beautifulbc, as the province's tourism slogan, intersects with #wildernessculture and #pnwonderland to depict a landscape available – and, by extension, to be preserved from pipelines – for tourism, recreation, and enjoyment. Similarly, the hashtag, #protectbc, supports preservation of the land for wilderness enjoyment; however, it also informs environmentally-oriented hashtags, such as those advocating the protection of endangered orca populations (#notankers, #whales, #whale, #orca), profiling climate issues (#climateemergency, #climatestrike, #climateaction), and promoting environmental organizations (#sierraclub).

Figure 5.6 – Wilderness Protection in the Pacific Northwest (turquoise)



Though the aims are slightly divergent, both recreational and environmental discourses rest on a colonial understanding of the land as separate from human life with intrinsic "aesthetic, biological, and ecological value" (Gómez-Pompa & Kaus, 1992, p. 273). In wilderness discourses, land and ocean become resources for both touristic escape from the stressful confines

of life in the city, as well as for environmental conservation efforts that aspire to safeguard sites of untouched wilderness to preserve biodiversity, provide spaces for scientific exploration, and form stalwarts against climate change and other environmental issues affecting urban populations (Gómez-Pompa & Kaus, 1992, p. 272). As a commodity, wild land is not seen as a space for productive labor or as a permanent home, but it is instead a place outside civilization, where the elite visit from modern spaces, engaging with the wilderness only temporarily as consumers of resources, recreation, education, and escape (Cronon, 1996). Braun (2002) elaborates how, when the wilderness is presented as an escape from modern civilization, modernity becomes double-coded as both progress and decline, and wilderness experience is portrayed as a way to recover that which has been lost through modernity – a pursuit that reinforces our very modernity as we mourn the loss of the past. As symbols of what has been lost by modernity, Indigenous peoples are idealized and sentimentalized within wilderness discourse as primitive inhabitants of the wild land who have left no trace, in binary opposition to the civilizing forces of European expansion throughout the continent. In relation to settler colonialism, therefore, wilderness narratives dehistoricize and depoliticize the landscape, naturalizing removal of Indigenous peoples from these spaces in ways that reinforce the colonial project. The presence of #waterislife within this cluster, therefore, paradoxically invokes Indigenous water protection and conceptions of the interconnectedness of life, while simultaneously leveraging indigeneity according to mainstream wilderness purposes. Linked with wilderness-oriented hashtags, the tag #waterislife may problematically evoke static, sentimentalized, and historical representations of Indigenous peoples in wilderness spaces and national parks, where they are used both to conjure both an Edenic past and as commodities serving up a wealth of environmental knowledge (Agrawal, 2002; Battiste, 2005). At the same time, however, #waterislife also indicates Indigenous leadership in anti-pipeline resistance on the west coast and interrupts wilderness narratives with a reminder of how “political and legal systems of the settlers removed Indigenous sovereignty and jurisdiction over the land” (L. R. Simpson, 2004, p. 378).

Due to these contradictions, the issue public pedagogy within this cluster evidences the clash of multiple knowledge systems under settler colonialism, which remains an incomplete and contested project. This clash is augmented by the economy of Instagram, which encourages campaign hashtags like the touristic #beautifulbc, and popularizes more radical hashtags like

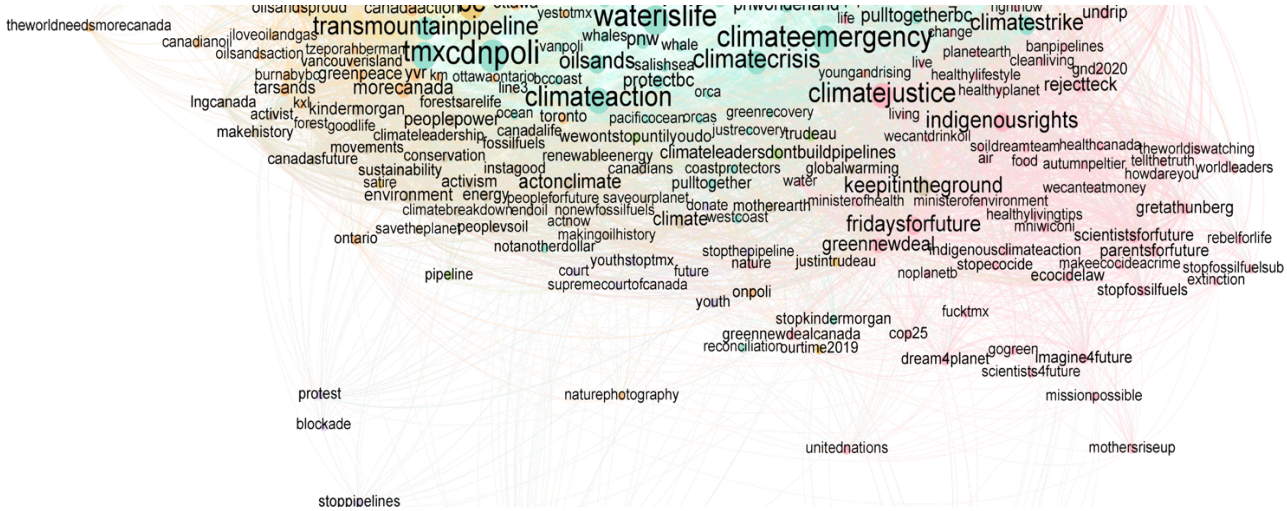
#waterislife, through platform economies, metrics, and cultures that inevitably perpetuate settler colonialism, while simultaneously supporting Instagram's exploitative, capitalist aims. In this way, local wilderness cultures intersect with Instagram's economy in a public pedagogy that indeed supports existing colonial relations even within pipeline resistance.

Climate change: justice (pink), activism (brown), and pro-oil (orange). Figure 5.7

Climate- and energy-related issues are intrinsic to the Trans Mountain controversy, but perspectives on climate issues are far from homogenous, as can be seen in Figure 5.7. Wrapping around the south end of the network are a series of climate-related clusters, which span climate justice (pink) to pro-oil (orange), with a central core (brown) focused on climate action to end reliance on fossil fuels. Proximal to the wilderness cluster (blue) described above, the central subcluster promotes climate activism through a mainstream environmentalist approach focused on #conservation, #sustainability, and #environment. Largely oriented towards techno-scientific elements of energy transition, the cluster tags #energy, #fossilfuels, #renewableenergy, #nonewfossilfuels, #makingoilhistory, and #endoil. The connections in this cluster between climate change and energy transition remarkably address critiques by environmental NGOs and alternative media journalists in Vancouver, who assert that in the mainstream media "context of British Columbia and Canada, the most important missing link is between energy and climate" (Hackett & Gunster, 2018, p. 174), as energy is typically related to economic and political issues, while climate is discussed in relation to scientific studies and international climate policy. Linking climate and energy is arguably necessary not only to promoting understanding the causes of climate heating but also to unlocking people's agency to address climate issues (Hackett & Gunster, 2018, p. 175). In this vein, hashtags within this cluster, such as #activist, #activism, #movements, and #peoplepower, are notably active, promoting public participation in demanding energy transition. The hashtags #actonclimate, #actnow, #endoil, #makingoilhistory, #makehistory, and #savetheplanet, are all verb-based, further emphasizing an action-oriented public pedagogy, rather than one focused on knowledge transmission or awareness. Associated with *The Guardian's* advocacy campaign (Rusbridger & Brevini, 2018), #keepitintheground indicates the influence of larger media institutions within Instagram's issue public pedagogy, as users adhere – whether knowingly or unknowingly – to promoted movements. Interestingly, this activist cluster references neither the police nor front lines resistance, perhaps indicating a more urban or elite public, whose livelihoods are not directly connected to the pipeline yet who are

acting in efforts to address the climate impacts associated with fossil fuels. Absent too are references to social, cultural, and political components of fossil fuel culture, including the colonial violence undergirding fuel-intensive life (Szeman & Boyer, 2017, p. 9) and the social complications of energy transition. As a result, while it hosts an activating public pedagogy, this cluster may dislocate climate issues from colonial and capitalist systems and extractivist processes, further naturalizing settler colonialism.

Figure 5.7 – Climate Change (pink, brown, and orange)



By contrast, the climate justice cluster (pink) contains heterogeneous hashtags indicating the political, cultural, social, and economic elements of climate change, including under settler colonialism (Whyte, 2017). While fossil fuels remain a focus, the climate justice cluster connects climate to #indigenousrights, #genocide, #ecocide, as well as basic needs such as #air, #soil, #water, and #food, capturing injustices interrelated with climate causes and impacts. Public pedagogy is again action-oriented in this cluster, advocating a number of imperatives for change: #banpipelines, #stopfossilfuelsubsidies, and #rejectteck (referencing the large-scale oil sands project, the Teck Frontier Mine). Hashtags promote policy changes to address climate change, including a national #greennewdealcanada, #gnd2020, or #greennewdeal, as well as international policies at #cop25 and decisions by #worldleaders. References to the youth climate strikes via #fridaysforfuture and #gretathunberg indicate active youth participation in calling policy makers to address climate change. Also present are climate action-oriented groups, such as #indigenousclimateaction, an Indigenous group “reinforcing our place as leaders in climate

change discourse and driving solutions for today and tomorrow" (*Indigenous Climate Network*, n.d.), and #extinctionrebellion, who advocate civil disobedience as a means to spur government action on climate (*Extinction Rebellion*, n.d.). The presence of Extinction Rebellion in relation to climate justice issues is notable, conflicting with some critiques that the organization has "a race problem" (Gayle, 2019) and is too white, middle-class in its orientation. In addition to Indigenous Climate Action, the cluster references Indigenous youth activist, #autumpeltier, and tags the Lakota phrase, #mniwiconi ("water is life"), indicating Indigenous interests in relation to climate change, along with Indigenous youth leadership. Considering climate injustices may be exacerbated by power differentials in climate decision-making, which are known to result in the invalidation or denial of marginalized perspectives (Levinson, 2012; Menton et al., 2020), the expressions of youth and Indigenous peoples, along with admonitions for policy change, signal an issue public pedagogy that at least to some extent questions climate decision-making based in capitalist and colonial systems. Over and against narrow framing of climate change as an issue of fossil fuel emissions only, this cluster speaks to the need to address climate change along with accompanying injustices; such an intersectional response is particularly necessary in Canada where,

> [d]espite symbolic gestures such as the Truth and Reconciliations Commission, and grand statements about signing the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and the Paris Climate Accord, the Canadian government pursues the extractive economy status quo, profoundly aggravating the climate crisis while systemically violating the rights and wellbeing of Indigenous people. (Gobby & Gareau, 2018, p. 451)

Certainly, policies such as a Green New Deal could be implemented in a way that maintains the settler colonial status quo, as critiqued by the authors of a decolonial and abolitionist Red Deal (*The Red Deal: Indigenous Action to Save Our Earth*, 2021). At the same time, references to various climate justice issues and marginalized populations within this cluster indicate a decolonial impetus for settler colonial society to understand climate change "from the perspective of those most violently impacted by climate change, contamination, dispossession, and state-corporate aggression on the frontlines of climate struggles" (Tilley & Parasram, 2018, p. 302), and to allow these perspectives to test hegemonic western knowledge systems and lead to transformational policies.

By contrast, a pro-oil subcluster (orange) at the other end of the climate spectrum is expressly nationalist and colonial. The hashtag, #morecanada, is prominent, and emphasized by #canadianenergy, #ilovecanadianenergy, #theworldneedsmorecanada, #canadianoil, and #canadaaction. The last hashtag references Canada Action, a grassroots organization in support of Canada's energy sector, which promotes a nationalist vision of extraction on their website:

> Canada is the envy of the world. Our landmass is enormous. We're viewed as smart, engaging, polite, hard working, and genuine. Canada's a beautiful, vast country blessed with abundant and diverse natural resources that are as essential to Canadians, Canadian communities and Canadian prosperity as they are to our customers around the world. (*Taking Action in Support of Our Vital Natural Resource Sector*, n.d.)

Canada Action branded images appear twenty-three times in the #stoptmx issue cluster (e.g. Figure 5.8), appealing to authority via statistics and infographics, as well as with quotes from politicians, Indigenous leaders, and economists. Posts work to substantiate nationalist pro-oil messages touting the economic benefits of the pipeline directly for Canadians, protectionism of the industry from the United States, Indigenous support for the pipeline, and the ethical nature of Canadian oil over and above nations framed as violent and dictatorial. Such links between the #tarsands and the nation-state are unsurprising considering Canada's long history of resource extraction for economic growth (Barney, 2017; Dobson, 2017) and the arguable role of pipelines in forming the "material infrastructure of Canada's unfinished rebirth as a distinctly 'modern" nation" (Barney, 2017, p. 80), with a geographical unifying function similar to that of the railway (Benton-Connell & Cochrane, 2020; Newman, 2018). Contemporary campaigns promoting the oil industry consistently celebrate industrial nation-building along a resource frontier, where violent and genocidal elements of colonial industrialization are minimized in favor of technical feats of engineering and savvy economic decision-making (Benton-Connell & Cochrane, 2020; Kraushaar-Friesen & Busch, 2020; Preston, 2017). With internal violence thus minimized, Canadian extraction can be framed as "ethical," in opposition to foreign sources of oil depicted as unethical or perpetuating terror (Preston, 2013). In this context, references by Canada Action to Indigenous benefit agreements naturalize colonial and capitalist relations, and make invisible any violences inherent to these systems. While Indigenous nations certainly should hold decision-making authority over resource development on their lands under UNDRIP and according to a nation-to-nation relationship with the Canadian state, representations by Canada

Action do not question colonial governance models under Band Councils (A. Manuel & Derrickson, 2017), rhetorical manipulation of Indigenous stakeholders by industry discourse (Cooey-Hurtado et al., 2019), or circumscribed options available to Indigenous nations under neoliberal logics (Friedel & Taylor, 2011; Jiwani & Young, 2006; Preston, 2013; Schram et al., 2016). So, while these posts purport to recognize Indigenous perspectives, they instead reinforce colonial recognition (Coulthard, 2014). The presence of the Canada Action campaign and pro-pipeline hashtags in relation to #stoptmx show evidence of efforts to infuse the anti-pipeline issue space with pro-pipeline messaging by using hashtags to cross-promote posts. While cross-promoted posts do not necessarily promote dialogue, they embed pro-pipeline pedagogy within the larger #stopkm issue public pedagogy. In this way, issue public pedagogy is shown to contain multiple and conflicting viewpoints, though there is no imperative for engagement or dialogue between them.

Figure 5.8 – Examples of Posts by Canada Action

Reading across the various climate-oriented positions, we can see how Instagram hosts complex, intermingling, and sometimes conflictual public pedagogies within a single issue space. As marginalized publics, youth and Indigenous people find space on Instagram to articulate

pointed critiques of capitalist and colonial approaches to climate change, presenting not only discursive interruptions but also active public pedagogies that take up hashtags as calls to action on climate. At the same time, however, public pedagogy can be highjacked and indeed "redwashed," through Instagram posts carefully crafted by pro-pipeline publics to appear socially-minded and in support of Indigenous peoples, while shrouding colonial histories and ongoing injustices associated with extraction.

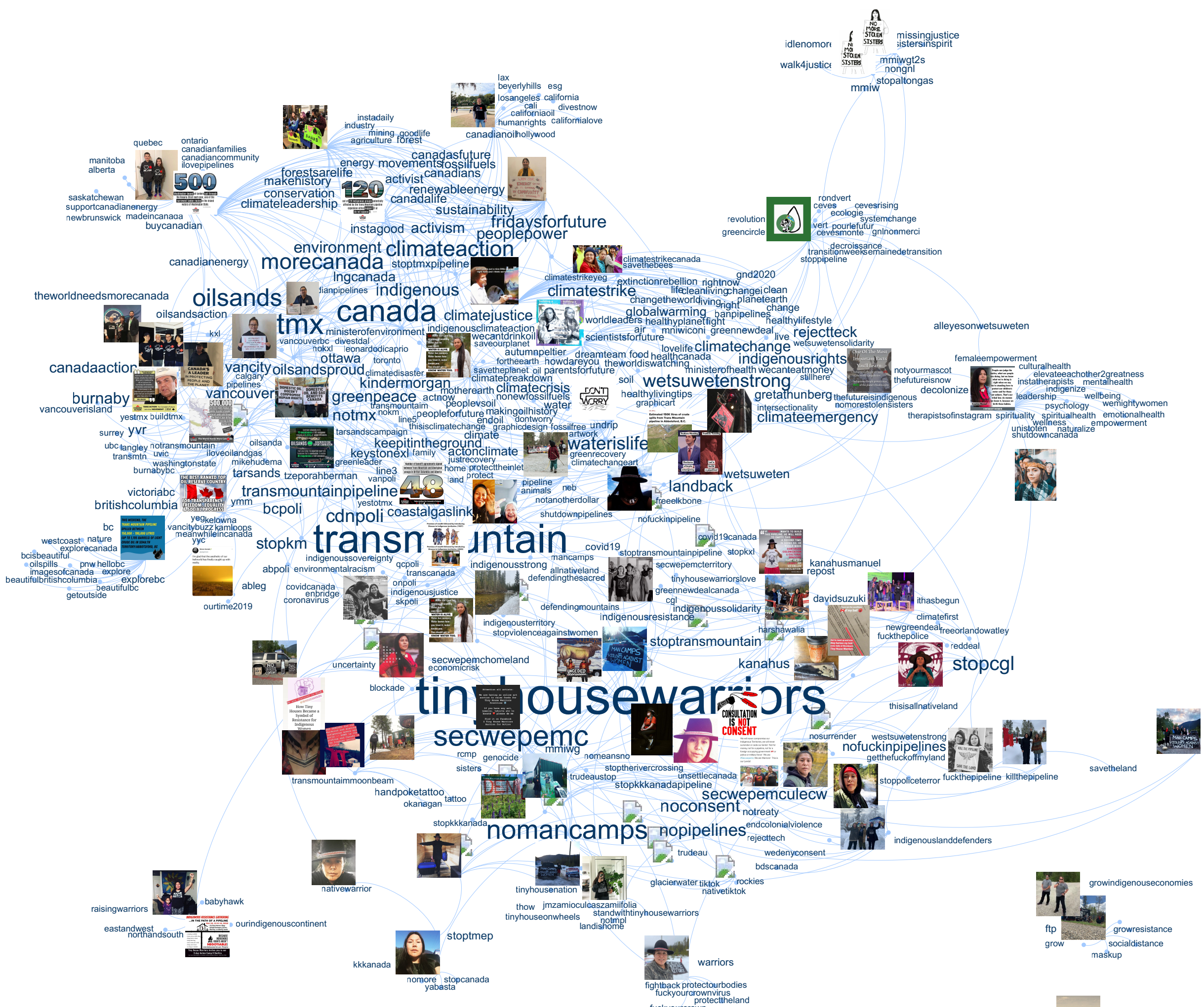
Instagram vernaculars and visual sovereignty: Image-hashtag analysis.

A study of issue public pedagogy on Instagram cannot bypass imagery – the core form of expression on the platform. The mass visual expression of Instagram demands research engagement with cumulative effects and aggregate meanings that arise within networks (Rose, 2016b). For the study of Instagram, it is key to consider images alongside hashtags, as "visual social media content can highlight affect, political views, reactions, key information, and scenes of importance" (Highfield & Leaver, 2016, p. 48). In relation to both platform cultures and the colonial representational regimes introduced in Chapter 3, the visual methodologies used in this chapter account for the pictorial nature of Instagram by connecting imagery to hashtag usage to explore aesthetic possibilities for Instagram's public pedagogy.

Extending the practice of co-hashtag analysis, I used the visualization software Gephi (Bastian et al., 2009) to map hashtags and their corresponding images together (Karsgaard et al., 2021), using a Python script to add the images to Gephi (Mauri, n.d.) once the network was created. In Figure 5.9, co-hashtag clusters structure the network at large, and associated images from Instagram posts are integrated into the map, enabling a reading of the two in conjunction. For increased readability, the graph includes only the top 100 most-liked images. As a result, the network graph does not capture the full scope of the issue but instead highlights key patterns in how images and hashtags are used together by influential accounts, which have the power to impact a high number of viewers. Due to the presence of dead links in the data set, some images are not available; these are indicated in the graph with a placeholder image as a reminder of the mutability of public pedagogy on a platform, where users can remove or change their posts and access to data is controlled by platforms with power to alter or remove links. Though visible enough to show patterns, the images that remain in the network graph are kept small to protect the identities of the individuals represented in the images, and they are instead described in the text below where relevant. The bipartite image-hashtag graph enables close reading of the

hashtags and imagery in conjunction to explore how textual and visual discourses interact with settler colonial constructs more broadly through the issue public pedagogy of #stoptmx. Rather than reiterating the key hashtag discourses discussed above, I instead focus here on key visual patterns as contextualized according to hashtags.

Figure 5.9 – #stoptmx Image-hashtag Network



The top 100 most-liked posts are dominated by doctored images and campaigns, along with a high density of hashtags, particularly in the northern half of the network where we begin. Personal moments photographed live and on location are nearly absent in this segment of the network, aside from a handful of images from climate strikes and protests – both anti- and pro-

pipeline. Influential accounts therefore appear to dominate #stoptmx issue public pedagogy with carefully crafted visuals, frequently hashtagged for maximum reach. Considering the marginality of pro-pipeline hashtags in the network graph above, pro-pipeline imagery is prominent (top left), with six images designed and branded by Canada Action, five of people wearing Canada Action's "I love Canadian oil and gas" clothing, three featuring an identical visual layout of individuals holding handwritten signs indicating personal support for economic development through oil and gas, and two with ethical oil slogans, one of which is overlaid on an image of the Canada flag: "the best ranked top oil reserve country for transparency, freedom, equality, and social progress." Pro-oil images intermingle with Canadian nationalist hashtags, including #morecanada and #theworldneedsmorecanada. Images of children and a cluster of adults in branded Canada Action clothing intersect with the hashtags #canadianfamilies and #canadiancommunity, depicting the fossil fuel industry not only as necessary to Canada's economy but also to the nation's social fabric. Images are also strategically networked via conservation-oriented hashtags, such as #forestsarelife, #climateleadership, and #conservation, in what appears to be greenwashing efforts to boost the image of fossil fuels, in keeping with industry efforts (Turner, 2012). Repetitions of Canada Action branding, the Canada flag, and Canadian-oriented hashtags through these posts reiterate petro-nationalism in a relatively unified pro-pipeline discourse. The prevalence of pro-oil posts in this set compared with the co-hashtag graph may indicate that users are "liking" posts by a handful of influential accounts rather than making posts themselves; alternatively or additionally, these posts may be liked by purchased followers or botted accounts in order to boost their presence through Instagram algorithms. Pro-pipeline pedagogy is therefore augmented by the commercial nature of social media under surveillance capitalism, which privileges efforts to drive up engagement, such as through prolific hastagging or likes, in order to increase data for extraction regardless of the messaging inherent to the post. Altogether, the pro-pipeline public pedagogy is very visually homogenous, shaped largely through campaigns, platform economies, and the centralized work of Canada Action, showing the potential for the platform to host and augment carefully constructed and targeted messaging.

By contrast, anti-pipeline imagery is more diverse, representing a variety of visual tactics common to Instagram arrayed throughout the center of the network. These largely relate to climate change, though specific Indigenous concerns are interwoven throughout. Proximal to the

pro-pipeline cluster are images that directly confront the fossil fuel industry through depictions of its disastrous impacts: an information card, designed outside of the Instagram platform, of a dramatic oil spill on Semá:th territory (Abbotsford, BC), and an apocalyptic image cross-posted from Twitter of Edmonton as a "hellworld" encompassed in forest fire smoke. Both provide empirical evidence of environmental and climate disaster, but with clear intentions to affectively impact viewers, whether through stated facts or by photographic proof. Also bordering pro-pipeline posts, a humorous meme takes a different strategy, depicting Bob Ross, ubiquitous television painter, overlaid with the text: "just gonna put a nice little pipeline right here and i think we're done." Evoking the same slow, peaceful tone in which Ross might familiarly narrate a live landscape painting with "let's just add some happy little trees," the meme uses humor to denaturalize the place of pipelines on the land. Moving away from the pro-pipeline cluster and into the centre of the network, another meme critiques Trudeau's disregard of his own climate policies, giving creative visual expression to political commentary. Leveraging Instagram's ability to share moments live and on location, iconic photos capture a Kinder Morgan protest, the 2019 youth climate strikes, and the 2018 aerial blockade that prevented tanker traffic from sailing under the Second Narrows Bridge in Vancouver. By zooming in on a small moment of each action – a frontline, a face, and a flag – each image draws the viewer into the moment of active resistance and activates affects of inspiration and participation, rather than positioning the viewer as outside the action. Other images seek to inform with rational straightforwardness; a statistical card communicates facts about Indigenous peoples' protection of biodiversity, and a screengrab from a mainstream news outlet shares a headline of a recent oil spill. Still others leverage celebrity; one candidly captures Greta Thunberg on location at a youth climate strike, and another depicts her in a zine-style doctored image with Autumn Peltier, Anishinaabe Water Protector, along with the statement: "How dare you! We can't drink oil or eat money." In the second image, the representation of the two young climate activists together reveals efforts to ensure Indigenous leadership and representation are central to climate efforts. Proximal to this post is an image of Anishinaabe member, Wabinoquay Otsoquaykwhan, overlaid with her quote about the life of water. Repeated in the southern half of the network, proximal to the #tinyhousewarriors, this image provides a visual continuity that shows the centrality of Indigenous peoples and concerns across various elements of anti-pipeline public pedagogy.

Reading across this array of examples, it is clear that continuity of content is not constitutive of the northern portion of the network, but continuity with platformed visual vernaculars is. In both pro- and anti-pipeline public pedagogy around the Trans Mountain, users leverage the various visual possibilities available on Instagram for intellectual, affective, and action-oriented impact. On the one hand, the great diversity of visual expressions reveals the inherent flexibility of the platform. On the other, memes, celebrity posts, on-location photographs, reshared content from other platforms, and information cards are all unsurprising; they have been adopted to express issue alignment, but they remain within the bounds of the expected. While images reveal a spectrum of positions from conservative nationalism to radical climate action, they consistently adhere to familiar visual norms on Instagram. This simultaneous diversity and adherence raises the question: to what extent is resistant visuality possible within Instagram's platformed public pedagogy?

The images in the southern half of the network, affiliated with the #tinyhousewarriors, indicate some resistant and decolonial visual possibilities for public pedagogy. Linked with the Tiny House Warriors and their affiliated hashtags as described above – and in direct contrast with the northern half of the image-hashtag graph – we see repeated photographs of people. Images of faces and bodies are hashtagged with references to frontlines and warriors, including #warrior, #nativewarrior, #raisingwarriors, and #tinyhousewarriorslove. Selfies of women's faces are most prominent, while a few share details of traditional tattoos or represent women together or with children. One is a mirror "plantie" – a selfie with a voluptuous plant. Others depict women on the land, some with raised fists or giving the finger. Most images appear to be shot on location and in the moment, signaling the Tiny House Warriors' front lines resistance. A handful of images of people, however, have been overlaid with quotes, which reference Indigenous women's decolonial leadership, declare "no man camps on native land," or elaborate the ways "water is alive." While selfies, planties, and quote overlays are common on Instagram, these repeated depictions of faces and bodies enables self-representation by land defenders – and concomitant refusal (A. Simpson, 2014) of both settler representation and the surveillance capitalism inherent to Instagram, whereby "Indigenous women stare back into the eyes of the oppressor and demand a respectful existence" (Lane, 2018, p. 197). Similar to Standing Rock, Instagram's #stoptmx issue public pedagogy around the Trans Mountain may therefore hold a counterhegemonic, interruptive agency, where

> [l]ive, real-time content disrupt[s] settler authority's control over mainstream media's narrative of modern day rhetoric of 'Indian savages' as 'violent protesters,' 'trespassers,' and 'rioters.' Social media, a tool of the colonizer, [becomes] a tool adapted as a non-violent weapon of truth and visibility for frontline warriors. (Lane, 2018, p. 208)

Paradoxically, selfies and quote overlays safely fit within Instagram's platform vernaculars while actively resisting colonial media representation, through appropriation of Instagram's visual forms. On a smart phone loaded with the Instagram app, these users transform a tool of state and industry surveillance of Indigenous people, returning the settler gaze by looking squarely into the camera and networking their images in defiance of the eliminatory colonial impulse. Here, anti-colonial public pedagogy reflects an active and embodied interaction with technology to not only communicate Indigenous self-representation but also the ontological reality of being on the land.

Complementing the photographs of people, the frontlines are depicted via intermingled images of resistant artwork, a few created for social media but most photographed on location as part of the blockade. Social media cards remix history with the present, for instance by comparing the detrimental effects of pipelines to the health effects smallpox blankets in a political cartoon. Others feature paintings, t-shirt designs, and local foods, or use artwork to promote upcoming actions and events. Images of murals, red dresses, and painted signs set up on the land and among the tiny houses visualize embodied Indigenous resistance, vibrance, creativity, and ongoing presence on the land. Through intermixing of traditional tattoo art and foods, murals, protest artwork and slogans, Trans Mountain construction signs defaced with "skoden" (short for "let's go then"), and social media cards, imagery associated with the Tiny House Warriors visually interrupts colonial representations of Indigenous peoples and undermines the traditional/modern binary that places Indigenous people in the past. Read alongside the resistant and resurgent hashtags arrayed around the #tinyhousewarriors, the

> cultural and aesthetic production that emanates from these positions is a strategic motion of refusal: to evade capture, resist cooptation, and renew Indigenous life-ways through the creative negation of reductive colonial demarcations of being and sensing. In this way, Indigenous art contributes to decolonization by disrupting colonialism's linear ordering of the world and its conditioning of possibility. (Martineau & Ritskes, 2014, p. V)

Posted in conjunction with a location and community from the interior of BC depicted in colonial society as “rural and remote,” or “in the middle of nowhere,” hand-painted, tattooed, photographed, and digitally designed visuals disrupt colonial erasure and misrepresentation through artwork that brings creativity to political action. Pedagogically, therefore, Instagram visuals function both as pipeline resistant and also as assertions of the failure of settler colonialism to disappear Indigenous peoples. Despite colonial elements of the platform and ongoing surveillance of Indigenous peoples on social media, images reveal an Instagram public pedagogy capable of decolonial “freedom to imagine and create an elsewhere in the here; a present future beyond the imaginative and territorial bounds of colonialism. It is a performance of other worlds, an embodied practice of flight” (Martineau & Ritskes, 2014, p. 4). With a paintbrush, cellphone, and computer editing capabilities in hand, users can perform, depict, share, and network decolonial alternatives to the status quo, complementing immediate, front-lines action through creative expression.

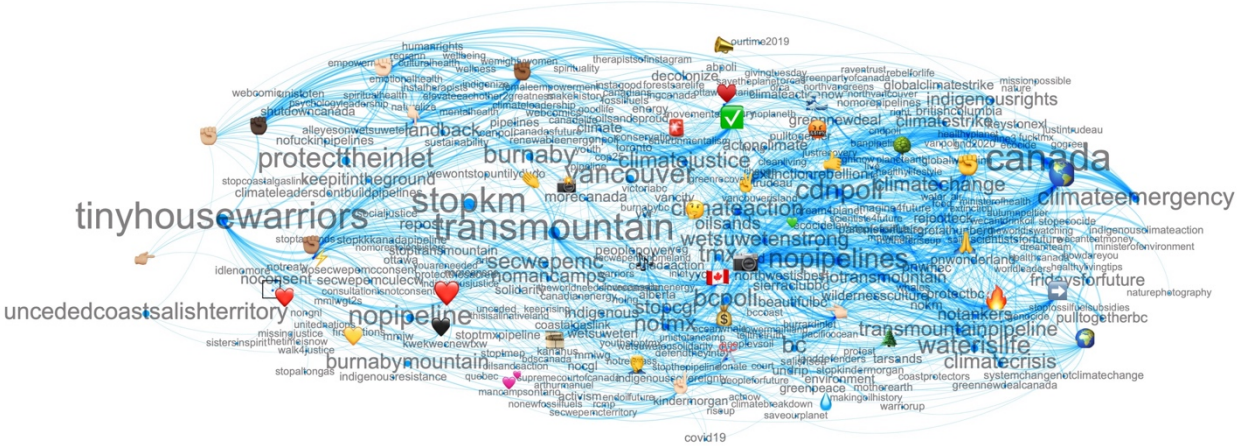
While the central network may be thus characterized, a handful of disconnected and loosely connected images scatter the periphery. At the bottom right, an orca swims alone, and images linked with Indigenous community life and health under COVID-19 are isolated. The separation of these posts reveals their topical marginality within the larger network. By contrast, posts at the top of the network are not topically but linguistically and geographically marginal, associated with the French-speaking population in Quebec. Twice-repeated artwork asserting, “No more stolen sisters,” is contextually related to the main network cluster, which similarly raises the issue of missing and murdered Indigenous women (centre right); however, this imagery is separated from the main cluster due to connections to Quebec’s GNL pipeline via #nongnl. A proximal post of a cartoon protestor in green also reflects key anti-pipeline issue discourses regarding system change, ecology, and energy transition; however, these hashtags are largely in French and are connected with La Coalition étudiante pour un virage environnemental et social (CEVES, or the Student Coalition for an Environmental and Social Shift). French language posts containing English language imagery show how public pedagogy can be multilingual, both connected and separated by hashtags in multiple languages. Expressed here through imagery and hashtags, multilingual public pedagogy is further supported through the automatic translation feature embedded in Instagram’s text function, which enables users to translate posts into their familiar language. While local concerns and language-based hashtags,

along with potentially geographically-based algorithms, may separate issue publics in relation to language, some platform affordances enable a marginally multilingual public pedagogy.

Raised fist – light skin tone: Hashtag-emoji analysis.

Instagram also draws imagery into textual components of the platform through the integration of emojis in the text of posts, within hashtags, and through various components of making and responding to stories. As a way into understanding emoji use within the #stoptmx issue public pedagogy, a hashtag-emoji network in Figure 5.10 maps relations between emoji and hashtag use. The displayed emojis were originally embedded in the text of posts associated with #stoptmx but were isolated from the posts using a Python script created for this purpose (Binkley, 2020). The script works with emojis created with the emoji keyboard but also the schwa and Katakana characters, which can be used to handmake emojis such as ¯_(ツ)_/¯. Before creating the network in Gephi, I manually removed these additional characters as they were most frequently used to type Indigenous place names rather than as emojis. Spatializing the network in Gephi (Bastian et al., 2009), again using ForceAtlas2, enabled visualization of patterns of hashtag and emoji use together. As Gephi was unable to recognize the emoji icons, I used the emoji names (e.g. “raised fist: medium-dark skin tone”) to spatialize the network, and a designer helped replace these with the emoji icons afterwards using Photoshop (*Photoshop Apps - Desktop, Mobile, and Tablet*, n.d.). The resultant network graph, while it displaces emojis from the original post text, provides a way to explore the interrelations between key issue discourses (via hashtags) and patterns of emoji use within Instagram’s multilayered public pedagogy.

Figure 5.10 – #stoptmx Hashtag-emoji Network



Even when extracted from post text, patterns in the emoji-hashtag analysis reveal how emojis can be used to emphasize issue position, express affect, and situate users, through public pedagogy that is digital yet embodied. Some emojis visually emphasize issue positioning, with trees, planets, and water-related emojis complementing climate-oriented hashtags on the right-hand side of the network. As with the hashtag #canada, the Canada flag emoji is central to the network, reinforcing the national nature of the controversy. The moneybag emoji is in keeping with economic critiques of the pipeline – though the graph is not clear whether the critique pertains to the government's pipeline purchase, financial support of the oil industry, or prioritizing of economy over environment. A scan of the posts themselves indicates that directional arrows, checkmarks, and pointing fingers are used in the text of posts for emphasis, drawing attention to key messages and calls to action. The function of camera and film emojis is slightly more difficult to determine, even when scanning posts themselves. In some cases, these follow platform cultures in attributing Instagram images to particular photographers. In others, they exhibit a self-reflexive public pedagogy that draws attention to how Instagram enables immediate photo and video documentation of events on the ground, including violent treatment and policing of pipeline-resistance. As emojis can be embedded in both text and hashtags on Instagram, emojis are inseparable from language, complementing the textual with a visual language that enlivens text to support issue expression.

Multiple emojis spread throughout the network reflect affective participation with the issue, including a cursing face, a face palm, a peace sign, and a questioning face. As a symbol of love and care, repeated heart emojis in various colors similarly add an affective layer to posts and connect the pipeline beyond techno-scientific concerns to social, cultural, and personal issues. Red, black, and yellow hearts are most proximal to hashtags referencing missing and murdered Indigenous women, man camps, and issues of justice, though the red hearts have multiple ties across the network. A green heart complements planet-oriented hashtags and #ecocide, expressing concern for the future of the planet. Expressed through such emojis, pipeline issue public pedagogy is not merely rational but also affective. Affective components of posts may be pedagogically purposeful, used to motivate participation, critique policies and question industry actions, or express outrage and frustration to mobilize change. At the same time, affective expression is also inherent to public pedagogy on Instagram, which affords

intermixing of rational with personal and affective learning, and blurs the boundaries between public and private (Bruns et al., 2011; Morrow et al., 2015; Papacharissi, 2015). While emojis may not be permitted in more formal written spaces, their use in issue public pedagogy on social media enables expression of emotion-based knowledge, testing favored pedagogical emphasis on logic and reason. Visible patterns of emoji use indicate how affect is not individual but shared among the #stoptmx issue public, albeit through networked rather than collective sharing, in keeping with Papacharissi's notion of "affective publics" on networked media (Papacharissi, 2015). While further exploration of engagement metrics and comments would provide greater insight into the extent to which affect impacts issue pedagogy among viewers and followers, these patterns reveal affective connectivity through issue public pedagogy that draws upon personal experiences and emotional responses.

Various corporeal emojis infuse the network, some of which identify the racial identities of the users. Emoji keyboards have enabled users to select skin colors for an increasing number of emojis since 2015, and we can see this flexibility taken up particularly in relation to the solidarity fist. The default yellow solidarity fist is positioned on the right-hand side of the network, more proximal to more mainstream climate-oriented hashtags, as well as climate- and environment-oriented emojis such as planets, trees, a water droplet, and an ocean wave. While this yellow fist may not signify identity, it may reflect a sense of "racelessness" or colorblindness according to privileged inattention to white supremacy and racism. Considering the predilection of mainstream environmentalism to bypass issues of race and colonization, it is unsurprising to find the yellow solidarity fist in this section of the network. By contrast, a spectrum of racially diverse solidarity fists are clustered together on the left-hand side; while they all contain various connections across the network, they are also all positioned proximate to anti-colonial, decolonial, and Indigenous-oriented hashtags such as #shutdowncanada, #landback, and others related to resistance in both Secwepemc territory and at the Kwekwecnewtxw watchhouse on Burnaby Mountain. Read alongside explicitly anti- and decolonial hashtags, racially diverse emojis emphasize the colonial components of the pipeline issue that intersect with power difference, race, and white supremacy. They also demonstrate solidarity across these divides. Supplementing text with an emojied action of raising a fist, these emojis enable corporeal participation with the issue within a digital platform, making for a public pedagogy that integrates issue alignment with individual embodiment and enables users to situate themselves in

relation to an issue. Of course, emojis are only one way for users to position themselves; other components of the platform – imagery, hashtags, and text – similarly afford situated engagement with an issue. Layered together, these affordances reveal how public pedagogy on Instagram involves not only discursively formed counterpublics (Fraser, 1990; Warner, 2002), but also affective (Papacharissi, 2015) and networked situated publics, whose emotions, bodies, and social positions are part and parcel of issue pedagogy.

Issue Public Pedagogy

Considering the primacy of hashtags in issue public formation on Instagram, a close examination of #stoptmx reveals the ways that hashtags, imagery, text, and emojis interact together through Instagram's platformed issue public pedagogy around the singular controversy of the Trans Mountain pipeline. Taken together, the multiple layers of analysis reveal how issue public pedagogy is connective, strategic, action-oriented, and situated in relation to geography and language, according to diverse usage of hashtags in relation to #stoptmx. Furthermore, Instagram's issue public pedagogy extends into the aesthetic realm through imagery that uses, subverts, or appropriates the platform's visual vernaculars while challenging colonial representational regimes, all while addressing the concrete issue of the pipeline. Created by diverse users networked in multiple ways across the platform, and co-constructed with algorithmic and afforded elements of the platform, issue public pedagogy results from public pedagogues that do not stand outside cultural production and act as interpreters but instead are participants in the issue public pedagogy through an opaque combination of human agent and platform.

Hashtagged issue public pedagogy.

Issue public pedagogy is mutable and fluid, shifting over time and across geographies, as well as in relation to offline changes and developments in the issue. While the #stoptmx analysis in this chapter traces the complexities of issue public pedagogy in relation to a single issue hashtag, the timeline of dominant hashtags reminds us that the #stoptmx analysis is a distilled version of a larger and shifting ecology of issue publics and pedagogies around the broader Trans Mountain controversy.

A close reading of the co-hashtag network in relation to specific texts and images reveals the complex pedagogical functioning of hashtags within an issue public in ways that both undermine and reinforce settler colonialism even as they address the Trans Mountain pipeline.

Co-occurrence of hashtags clearly reflects divergent yet overlapping clusters of issue-positioning around the Trans Mountain, relating to jurisdictional issues, Indigenous sovereignty, decolonization, and climate-related issues. Within these clusters, hashtags may carry subtexts and function as citations, referencing policies, campaigns, and events that inform the Trans Mountain in different ways. Relatedly, they can index and aggregate both individual and localized issues in relation to structural issues, as with the connections between personal experiences with the violence of man camps and broader concerns with Indigenous sovereignty and consent. Hashtags may also be appropriated and hijacked to insert divergent views into issue pedagogy, as we see with pro-oil publics posting to #stoptmx. While hashtags map out the discursive space around the Trans Mountain issue, they can also weave personal experiences and resurgent practices with political components of the pipeline issue, through a holistic form of public pedagogy that does not abstract issues from individuals' lived experiences. Hashtags also contribute to an action-oriented pedagogy, enabling networking and solidarity across related localities and issues, such as the Secwepemc and Wet'suwet'en resistances. For an issue engaging multiple language publics, hashtags may contribute to a multilingual public pedagogy by layering multiple languages within a single post and making connections across linguistic groups. Hashtagged issue pedagogy therefore does not suggest a singular culture imposing a reproductive educative force, though the question does remain concerning the extent to which hashtagged posts contribute to meaningful dialogue across perspectives or action on issues. Rather, multiple functions of hashtags exhibit a complex and multi-layered pedagogy that reflects the potential for active and resistant – as well as reproductive – knowledge production within networked relations.

Aesthetic public pedagogy: interrupting layered distributions of the sensible.

Patterns of imagery and hashtags together reveal not only the diversity of visual pedagogies being applied in relation to #stoptmx but also how images take on particular meaning within networks of relations established by hashtags. Images linked to #stoptmx work both within and against the visual vernaculars of Instagram – as well as both within and against colonial representational regimes – resulting in the formation of aesthetic publics and expressions of aesthetic public pedagogy. It is true that most images associated with #stoptmx follow visual vernaculars on Instagram such as selfies, info cards, memes, and screenshots of news items, exhibiting the influence of platform cultures, affordances, and economies within an

issue public pedagogy that is inextricably bound up in a platform structured by surveillant and big data capitalism. However, we also see how the posts linked with #tinyhousewarriors at times follow but also appropriate, remix, and subvert Instagram's visual vernaculars to challenge or refuse colonial representational regimes, for instance through the selfies and "planties" of women in the #tinyhousewarriors. Despite a relatively set visual vernacular, therefore, creative flexibility on Instagram affords anti-colonial expression, through posts that challenge colonial visual regimes and take politics beyond a rational Habermasian public sphere or Warner's discursive publics into the realm of the aesthetic.

Instagram's public pedagogy, therefore, may be described as aesthetic in the political sense of Rancière (2009, 2013), whereby artistic expressions interrupt the existing hierarchical and classificatory structuring of the sensible world that rationalizes inequalities and locates knowledge only in particular subjects. This "distribution of the sensible" is a representative regime – such as the representational regime inherent to settler colonialism – that determines what is legible and worthwhile, maintaining hierarchical boundaries by denying improvisation, experimentation, and knowledge production to those deemed incompetent within a particular geographical and temporal context; it is "a seemingly self-evident distribution of identities and places, capacities and talents, where inequality is rationalized into a given world of experience and practice" (Thumlert, 2016, p. 116). Into this regime, Rancière asserts that politics "happens" when the distribution of the sensible is disrupted, as we saw through the posts affiliated with the Tiny House Warriors. Politics relates to aesthetics insofar as it makes visible that which was previously invisible through a "deeply engaged mode of agency through which unauthorized or unqualified actors might unexpectedly take part in authentic aesthetic/ intellectual practices—out of place" (Thumlert, 2016, p. 115). Such artistic interruptions transform the sensory fabric underlying social relations by which particular actors disidentify from established classifications of bodies and roles, for instance through the resurgent self-representation and artistic expression by Indigenous peoples (Martineau & Ritskes, 2014) described in this chapter or through quotidian imagery of life on the land that undermines colonial wilderness representations. In this way, "the transformative nature of the postcolonial aesthetic lies in the capacity of the colonized to occupy, disrupt and transform the realm of the dominant aesthetic" (Ashcroft, 2017, p. 194). In the settler colonial context of the Trans Mountain pipeline, where colonial aesthetics supports physical enclosure of land via the visual enclosure of colonial representation (Ashcroft, 2017, p.

201), political disruptions may take the form of aesthetic resistance and transformational visioning, affectively communicating alternative relations and depicting new possibilities (Ashcroft, 2017, p. 192).

While Rancière asserts that such interruptions are linked with artistic autonomy and free play (Rancière, 2009, p. 32), there is also a sense that structuring logics of domination – labeled by Rancière as "the police" – continue to regulate social positions and functions. Indeed, in the issue public pedagogy of #stoptmx, we see the disciplining force of Instagram vernaculars, cultures, and economies at play, as well as the ongoing influence of settler colonial representational regimes, including how these are invoked even as resistant aesthetic expressions undermine and challenge them. At the same time, analysis of #stoptmx on Instagram reveals the "aesthetic dimensions of a pedagogy which… presumes intellectual and creative equality of all and explores what (if anything) can be achieved under that supposition" (Lambert, 2012, p. 216), according to the visual expressions of diverse Instagram users as they engage with the broader #stoptmx issue in a multiplicity of ways. Further, the networked nature of images "challenges the modernist notion that art has a unitary, durable meaning and that this meaning must be explicated via the teaching of an expert" (Burdick & Sandlin, 2013, p. 160); rather, art and visual expression on Instagram is explicated by the networked tools of the platform such as hashtags and text, and is also left open to commenting, sharing, re-posting, remixing, and scrolling past without response. Here, aesthetic expression may not simply function to explicate but also for affective, narrative, translative, visionary, and networked public pedagogies among multiple public pedagogues – at times with unpredictable results.

Rancière helps us see the political power of visual expression on Instagram as it refuses the surveillant system inherent to platform capitalism – and colonial representational regimes that define bodies and the land – to express alternative ways of knowing and being, along with future visions and possibilities. When read in relation to Fraser's and Warner's theories of publics, the political "work" of aesthetic expressions surrounding the Trans Mountain pipeline indicates the presence of not only discursive but also aesthetic counterpublics on Instagram, a platform shaped by language but most significantly through imagery. While the pipeline is most certainly a material project – linked with lands where homes are built, waters where salmon run, and bodies who feel the threats of temporary workers – resistance takes places both on the land

and online, where aesthetic expression works within and against the platform to undermine the colonial distribution of the sensible that justifies material extraction.

Issue public pedagogues: multiple, monstrous, mundane.

Considering the complexity within #stoptmx issue public pedagogy, is tempting to say that on Instagram, there are multiple public pedagogues. Certainly, the #stoptmx issue public pedagogy works against the concept of a singular public pedagogue situated within a formal education institution, possessing the clarity of insight to critique hegemonic culture and nurture within students the tools of deconstruction. In fact, #stoptmx issue public pedagogy on Instagram provides clear evidence for the impossibility of conceiving a singular public undergirding a "public pedagogy [that] is mythologized and totalizing, and conceals disparate social realities by failing to recognize how access to forms of knowledge is differentiated and situated within the specificities of individuals' lived experiences" (Savage, 2010, p. 103). Rather, a diversity of issue positions, pedagogical tools (hashtags, images, text, and emojis), and situated users are evident in the #stoptmx set. Some perpetuate settler colonial norms and reflect hierarchies inherent to social media economies and influencer culture. At the same time, public pedagogical imagination, insight, and anti-colonial critique is evident from multiple angles according to divergent issue positioning, some of which is clearly situated on Instagram through such indicators as geographical and Indigenous hashtags, resistant selfies, and racially oriented emojis. Issue public pedagogy fosters solidarities and actions, and various liberatory discourses and aesthetics emerge from different angles. We may also infer further participation by other public pedagogues not studied here, who reframe and reshare these posts in their own Instagram stories, or who use the comments to agree, extend, or critique existing content. Based on this diversity, we might say that there in fact multiple public pedagogues, connected through networks to create a messy, contradictory, and dynamic #stoptmx issue public pedagogy on Instagram. By naming multiple public pedagogues in this way, we recognize the contributions of many diverse actors to issue pedagogy within networked counterpublics, undermining the hierarchical divide between formal and non-formal educational spaces.

At the same time, the idea of multiple pedagogues is insufficient as it isolates individual subjects as discrete and autonomous pedagogues in a way that perhaps denies or at least minimizes the significant influence of the platform in public pedagogy. Much of public pedagogy's deconstructive work "relies on a unitary notion of the self and on a traditional, linear

view of the process of cognitive development" (Burdick & Sandlin, 2013, p. 157) that is contradictory to life online. Looking at the hashtags, images, and emojis, it is clear that smart phone technology, platform affordances and cultures, and the invisible influences of data gathering and algorithms, are visibly and spectrally intermingled in public pedagogy, making it impossible to position a public pedagogue separate from these influences. At times, users certainly apply their agency to hijack and subvert elements of the platform through self- and platform-reflexive pedagogy. Despite agential capabilities, however, the acting subject on Instagram is reconstituted as a "user" through engagement with the platform, a reconstitution that undermines a unitary notion of the autonomous subject. Even through the close analysis presented in this chapter, it is impossible to fully trace the myriad ways that the platform interacts with user identity, agency, and expression. Posthumanist public pedagogical approaches recognize such complexities and critique "dichotomous, hierarchical, identitarian, and boundary-driven thinking" (Burdick & Sandlin, 2013, p. 162). Posthumanists thus favor conceptions of "monstrous pedagogies," where monstrously representing the unrepresentable gives expression – and life – to new imaginings for being in the world. In the case of #stoptmx issue public pedagogy, issue public pedagogy on Instagram may be described as monstrously mundane, with material, infrastructural, algorithmic, and corporate elements acting inseparably from various users as public pedagogues, yet often in ways that remain unrecognized. In this case, the critical consciousness offered by public pedagogues may involve not only issue-related criticality but also user-reflexivity on agency, as we see from those users who critique and subvert platform affordances and cultures, who attempt to "game" the platform (including its policies and algorithms), or who speak back directly to the platform, in efforts to affect change (Shaw, 2017). Destabilizing the dichotomy between human and machine, public pedagogy on Instagram exhibits user agency that is inextricably bound up in the embodied, cultural, economic, and data-driven agency of the platform, both visible and spectral.

Conclusion

The analysis in this chapter traces the complexities of issue public pedagogy on Instagram, revealing the networked and aesthetic nature of issue public pedagogy among multiple and monstrously mundane public pedagogues. To address the critiques leveled at public pedagogy research regarding its often generalized approach, this chapter takes "issue publics" as its starting point in further examining the publics of public pedagogy, the various elements of

Instagram's pedagogy, and the precise nature of social media public pedagogues. Through layers of digital and visual methods complemented by close reading, this chapter traces the flow of issue public pedagogies more generally and then examines the nature of #stoptmx issue public pedagogy specifically, according to various tools – including hashtags, text, imagery, and emojis – and in relation to ongoing colonial extractivism. Recognizing the need to move beyond an insufficient mainstream environmentalist frame, the analysis of #stoptmx issue public pedagogy takes into account colonial relations, revealing both the ongoing restrictions and resistant possibilities that emerge in relation to the Trans Mountain pipeline.

Issue public pedagogy on Instagram reveals itself to be both networked and aesthetic, carried out by counterpublics that are not only discursively formed but also shaped through aesthetics that question and undermine the colonial representational regimes that justify extraction and ongoing violence. Aesthetic public pedagogy functions both within and beyond Instagram's platform vernaculars, cultures, and economies as publics appropriate the platform to counter the colonial "distribution of the sensible." The multiple public pedagogues reflect ranging social positions and issue orientations that interact with Instagram's affordances to contribute a complex #stoptmx issue public pedagogy that at times reinforces, undermines, and bypasses settler colonialism. Due to the impossibility of isolating the ways the platform interacts with user identity, agency, and expression, these public pedagogues may be understood as monstrously mundane, inextricably interconnected with the platform.

The #stoptmx analysis is a distilled version of a larger and shifting ecology of issue publics and pedagogies around the broader Trans Mountain controversy that is geographically distributed and positioned on Instagram using location tags. The pipeline, after all, impacts lands and communities along the length of the pipeline, at its terminus, and in climate-affected locations globally; inspires Indigenous assertions of sovereignty; incites interprovincial conflict; and evokes grounded resistance in both temporary demonstrations and long-term blockades. For an issue that is deeply geographic, a place-based analysis is crucial to understanding Instagram's public pedagogy. Building on the issue-based and aesthetic analysis presented here, Chapter 6 moves to explore Trans Mountain public pedagogy in relation to Instagram's location tagging tool.

Chapter 6 – Situated and Connected: Public Pedagogy and Place

The extension of the Trans Mountain through various remote and urban communities from Treaty 6 territory at Edmonton and across the mountains to an inlet on the Salish Sea, means this issue is deeply connected to land and location. National, provincial, and civic politics intersect on particular lands and waters, from worker camps to popular beaches, and from blueberry harvesting grounds to ocean straits filled with orcas and mollusks. The Trans Mountain controversy has seen protests and demonstrations at federal and provincial governments and law courts, in parks, city streets, rural camps, urban bridges, ports, and waterways not only in Canada but internationally as well. Blockades and resistance camps have been set up along the pipeline route at Camp Cloud on Burnaby Mountain and in Blue River by the Tiny House Warriors. Local theatres and music venues across greater Vancouver have hosted fundraisers and benefit concerts. The pipeline is not geographically bounded, however, as related issues pertaining to Indigenous sovereignty span the nation of Canada, and the climate impacts of the oil industry have global implications resulting even in recent demonstrations in Kiribati, Sierra Leone, against Trans Mountain's insurers (Woodside, 2021). In relation to this geographic distribution, Instagram's affordances support a particularly located public pedagogy, with multiple means for publics to leverage location tags, hashtags, and imagery to connect the issue at various geographical scales and for various purposes.

As the prime locative affordance on Instagram, the location tag works in conjunction with other components of a post. While hashtags, imagery, and text may also contain geographic information, the location tag connects posts geographically, not only labeling individual posts but also returning posts in keyword- and location-based searches. The implications of geolocating posts are complex as social media data function dialectically with places, reflecting and representing (Chen et al., 2019) but also constructing them (Boy & Uitermark, 2017),

> creat[ing] augmented geographies in that they constitute "spatial stories" or micronarratives of place that are acutely involved in processes of place-making. By explicitly tagging their location or simply mentioning a place in a shared image or tweet, social media users are certainly engaging in a broader public conversation about space and place—one that is not always apparent at the level of the individual tweet or image. (Mitchell & Highfield, 2017, p. 4)

Collectively, therefore, geolocated posts form place-based expressions of public pedagogy that warrant their own examination.

The history and economy of Instagram afford some flexibility and anti-colonial possibility for geographically located public pedagogy on the platform. By zooming out to analyse the full set of location tags associated with the Trans Mountain pipeline, digital methods reveal the range of location tags within this colonial and corporate platform, along with how location tags and hashtags intersect pedagogically to issuefy the pipeline. By zooming into a few key locations through digital methods that work with hashtag frequency and image engagement metrics, along with close reading of affiliated post texts, the nuances of place-based and platformed public pedagogy become more pronounced.

Location on Instagram

In keeping with Instagram's origins as a location-based check-in app called Burbn (Leaver et al., 2020, p. 9), spatial components of Instagram have consistently remained central, and location remains one of the only means of searching content on Instagram. Even since the 2016 removal of Instagram photo maps, which visualized the geographic distribution of a user's location-tagged images (Hinchliffe, 2016), the search field continues to host a tab for "places," and user searches return both hashtagged and location-tagged places. The prominence of location on the platform indicates the ongoing dominance of Instagram's promoted intention for users to post on location, in the moment. Fluidity of representation is available on the platform, however, and users invoke location and evade location-specific posting in a variety of ways. When posting, users can tag an assortment of location types, including cities, neighborhoods, landmarks, business, and political entities such as provinces and states. In keeping with the use of location-based hashtags for a variety of connective and rhetorical purposes (Bastos et al., 2014; Utekhin, 2017), user selection from a diversity of location tags must be considered as a component of the platform's public pedagogy.

Recognizing that location tag selection may hold pedagogical significance, it is also key to remember that Instagram's economy shapes location selection on the platform. Personal geodata is particularly sensitive, holding special interest for corporations, law, security, and intelligence (Mitchell & Highfield, 2017, p. 5). The value of location data is growing exponentially, estimated in 2017 by Geospatial Media to be a sector worth $500 billion (qtd. in Mitchell & Highfield, 2017, p. 3). As one of many geosocial platforms competing within this sector,

harnessing location data is in Instagram's interests. These interests interact with user concerns about geoprivacy, playing a part in how users interact with locative permissions and affordances, which have shifted significantly over time. Prior to 2015, the location field was free-form, enabling toponymic creativity and flexibility, but since then, it has been impossible to create new location tags in Instagram directly. Currently, Instagram automatically suggests location tags from a fixed database, according to the user's location when taking a picture. Such suggestions potentially impact user selection and may result in the clustering of posts into dominant locative patterns. Instagram users can create new locations via workarounds available through Facebook; however, this process is not transparent, inaccessible to users without Facebook accounts, and difficult for users desiring to post live and in the moment. Further, Facebook limits use of symbols or emojis in custom locations, restricting the types of location names that are possible. Despite these limitations, location tags are not the only way to connect a post to a place. Hashtags afford users more flexible means to link to specific locations as they are free-form and enable use of emojis, such as flags, to indicate locations. Considering these overlapping tagging tools, along with the influence of the platform's algorithms, privacy policies, and data sharing, place-based public pedagogy on Instagram reflects a complex of platform affordances and user agency. By zooming out and then zooming in on the Trans Mountain's Instagram landscape, we begin to see how these affordances interact as part of the issue's public pedagogy.

Zooming Out: Location Tags and Location Networks

Looking down on the land while flying across the prairies and over the Rocky Mountains from Edmonton to Vancouver, patterns emerge of farmlands and parks, urban centers and river systems. From above, it becomes clear why roadways wind through valleys and over mountain passes, and how towns intersect with pipeline systems. Clear cuts and mines are visible to air travelers, while those on the ground may be deceived by green strips left along highways and around communities. A bird's eye view of the locations of Instagram posts similarly enables a vision of the patterns of location tagging as one way to understand public pedagogy around the Trans Mountain issue. The zoomed out view makes evident the range of location tags used in relation to the pipeline issue, including how these fall into toponymic categories supported by a colonial and capitalist platform. Next, a location-hashtag network graph reveals how hashtags issuefy the Trans Mountain in relation to available locations, creating geographic idiosyncracies, commonalities, and divides.

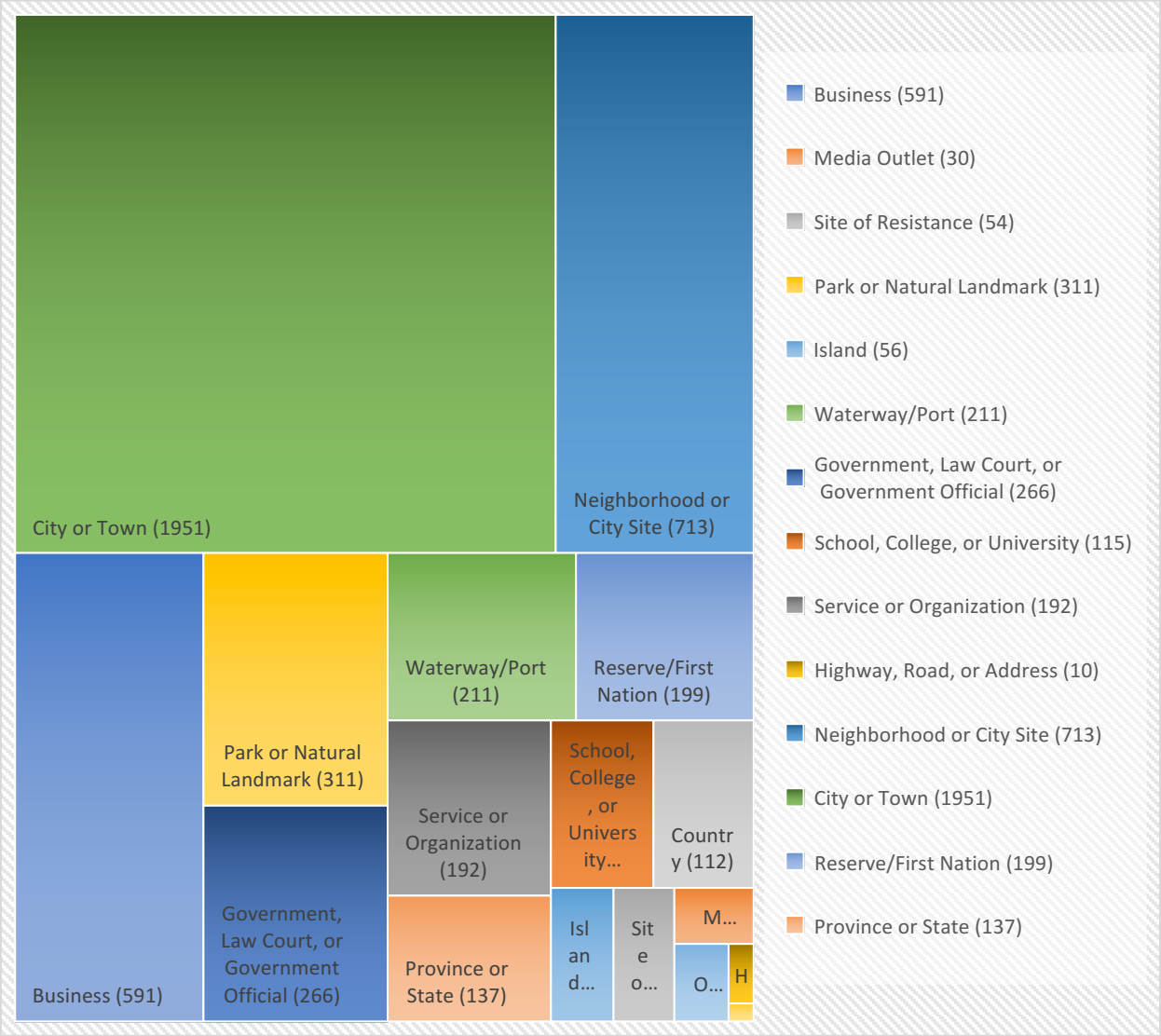
The scope of location tags associated with the pipeline points to the flexibility in user choice within the platform. Of the full set of 13,879 posts, 4,979 (36%) contain location tags, which means that most – 8,900 (64%) – do not. Potential reasons for not tagging are many, including desires to preserve privacy, reduce one's digital footprint, or avoid police or industry surveillance in relation to pipeline resistance. Other users may find location tags redundant, assuming that their followers already know where they are; alternatively, they may prefer to story their locations using hashtags (Utekhin, 2017). While only users themselves can describe why they *may not* tag their locations, it is possible to explore the locations they do tag.

Location tags and colonial toponymy online.

Trans Mountain posts are associated with 1255 unique locations, and manual sorting reveals the flexibility and limitations in Instagram location tags (Figure 6.1). In keeping with Instagram's location tagging protocols, the majority of tags reference official toponyms and names of business and organizations. However, the selected names range in scale and specificity, indicating potential for purposeful – yet limited – selection and thus significance for public pedagogy. Many posts are affiliated with the names of cities, towns, neighborhoods, and First Nations reserves; these toponyms link to immediate communities and local politics, while still remaining general enough to undermine surveillance efforts. However, some users select the names of broader and more abstract, politically defined locations such as provinces, states, and countries, potentially taking up, appropriating, or speaking back to these higher levels of governance, as explored below. By contrast, many users pinpoint their exact locations, linking their posts to very specific neighborhoods, landmarks, addresses, or streets within cities and towns, in keeping with Instagram's dominant culture of featuring content live and on location. Users also tag specific businesses, organizations, services, churches, schools, and universities, providing evidence for how Instagram supports branding and promotion, including for non-profits, and that business locations infuse even the Trans Mountain issue discussion. Interestingly, included under "Government" are names and offices of specific federal Members of Parliament or provincial Members of the Legislative Assembly, indicating how Instagram users may use the location tag to speak out or speak back about the pipeline – whether rhetorically or directly – to these actors. Similarly, users engage with mainstream media outlets by location tagging, though whether through subscription or opposition is unclear without further analysis. While urban locations are prevalent, many users also tag parks, ports, waterways,

beaches, and other natural landmarks like mountains and trails, exhibiting the significance of this issue not only for urban populations and human communities but also for the land or what some may call "natural" spaces, outside, within, and in relation to human communities.

Figure 6.1 – Location Tag Types



The narrow toponymic selection available on Instagram aligns with colonial impulses to claim, map, categorize, and surveil, along with capitalist impetus to gather data for sale. While they may appear neutral and natural, naming practices on Instagram via location tags follow colonial naming practices by subtly communicating hegemonic narratives and functioning as mechanisms of classification and control (Murphyao & Black, 2015; Rose-Redwood et al., 2010;

Wideman, 2015). Specifically, while official colonial toponyms and business names are prevalent among the set, Indigenous place names and references to Indigenous territories such as Secwepemcúĺecw are nearly absent, not included in Instagram's database; Coast Salish Territory is a one exception, having been added to the location database at some point. These absences are by design. In colonial contexts, toponyms are tools of "cultural erasure in which the newly named and mapped places [are] appropriated as the indigenous cultures [are] subordinated" (Nash, 1999, p. 460) through the elimination of Indigenous languages in public spaces and the rupturing of relationships between Indigenous cultures and the land, which are often reflected in Indigenous place names (Carbaugh & Rudnick, 2006). It is easier to add the address for a business as a location tag in Instagram than an Indigenous place name, particularly in an Indigenous language, and it is near impossible to capture the relational, historical, political, cultural-linguistic, legal, and cosmological nature of land and location within Instagram's location field, unlike with Twitter's free-form profile location field (Karsgaard et al., 2021). Along with the "constant repetition of Settler names in maps, guidebooks, daily conversation, and other wayfinding practices" (Murphyao & Black, 2015, p. 317), the banality of naming practices on Instagram shrouds the dispossessive nature of settler colonialism for capital gain, including the violent, racialized nature of this dispossession (Berg, 2011; Wideman, 2015). Through repetition in the platform in relation to a grounded issue such as the Trans Mountain controversy, colonial toponymy may function both semiotically and materially, as "textual inscriptions [are] physically embedded in the landscape, and… everyday speech acts reinforce the 'common sense' of the neocolonial geographical imagination" (Rose-Redwood, 2016, p. 198; Rose-Redwood et al., 2010). These limits indicate the "power that technocratic-authoritative toponymies exert in modern societies" (Berg & Vuolteenaho, 2009, p. 4) 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, virtual locative technologies such as Instagram's limited location field function similarly to what Rose-Redwood et al. (2010) term "calculable spaces," which are used to regulate representation and communication, as well as to serve data gathering and surveillance. The impacts of location selection (or lack of selection) are not merely representational, therefore; they may also hold significant grounded effects. Certainly, one of the first rules of posting on social media from a protest or demonstration is to minimize digital traces by removing metadata

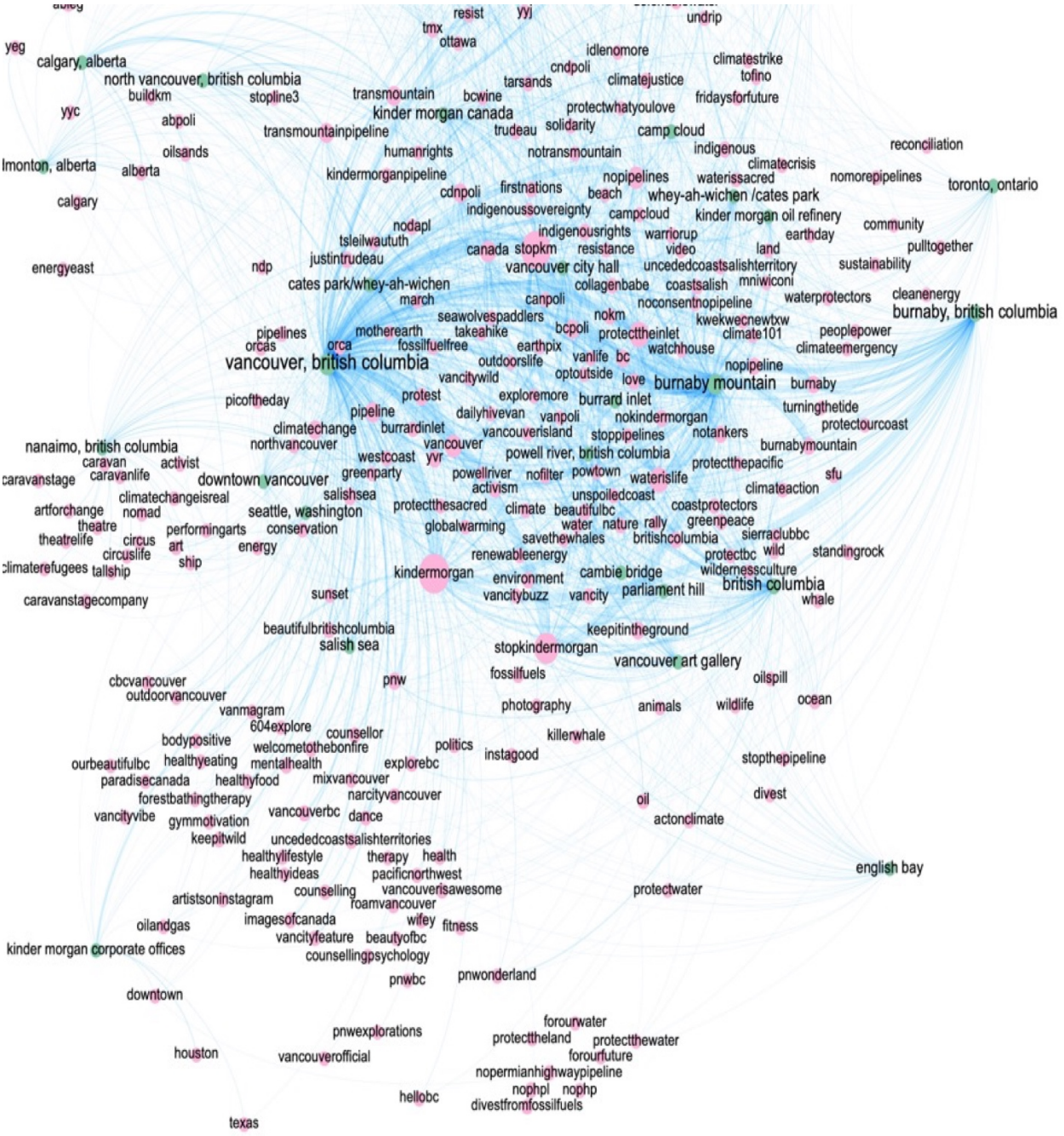
such as location tags, and users may consider these effects when posting. As a pedagogical tool, therefore, Instagram's location field contains notable restrictions, particularly in relation to a colonial issue involving significant surveillance and criminalization of resistance, particularly Indigenous resistance. At the same time, users may resist, appropriate, or counteract Instagram's affordances, including the location field, in ways that counteract the colonial platform.

Location-hashtag network.

Location tags, however, do not function independently of the other components of a post and cannot therefore be understood in isolation. The large-scale analysis available via digital methods enables exploration of the patterns by which location and issuefication of the Trans Mountain pipeline via hashtags intersect in public pedagogy. Extending established digital methods regarding hashtag analysis (Bruns & Burgess, 2015; Highfield & Leaver, 2015; Marres & Moats, 2015), which elaborate the strategic and connective use of hashtags in rendering posts searchable and connecting them to the issue community, a bipartite network map (Figure 6.2) created using Gephi (Bastian et al., 2009) plots location tags (green) in conjunction with hashtags (pink) to make visible trends, hierarchies, and centrality within the issue network in relation to location. In Figure 6.2, the size of each node indicates the number of occurrences of that location tag or hashtag, and the size of the text indicates the number of connections to that tag. Tags that occur with a frequency of less than 20 have been removed from the graph for ease of reading. As a result, this network graph provides exploration not of the full issue network but of dominant patterns in how location and hashtags function together, in order to consider the ways that public pedagogy on Instagram connects issues contextually and geographically. As an unexplored method for location analysis on Instagram, the bipartite graph also contributes methodologically to studies of public pedagogy on the platform, including for more granular analysis of the full data set, where space and replicability of the network graph allows.

The bird's eye view of the network graph reveals how Vancouver and the surrounding areas are central to the Trans Mountain issue and are thus likely to dominate public pedagogy around the pipeline. Vancouver and the related suburb of Burnaby are the most frequently tagged locations, and they are central to the network graph with the most connected hashtags. Also central are a number of locations in and around Vancouver: Vancouver Art Gallery, Downtown Vancouver, Cambie Bridge, Vancouver City Hall, and Burrard Inlet. The predominance of Vancouver, suburbs of Vancouver (such as Burnaby and North Vancouver), and locations within Vancouver

Figure 6.2 – Location-hashtag Network



is not surprising considering the large urban population and ongoing anti-pipeline resistance and direct action in this region throughout the years. Burnaby Mountain was the site of Camp Cloud, a media surveillance post and resistance camp (*Camp Cloud at KM Surveillance Post | Facebook*, n.d.), and is still home to Kwekwecnewtxw, a Coast Salish watch house Tsleil-Waututh members and allies occupy in resistance to the pipeline expansion (*Protect the Water.*

Protect the Land. Protect the Climate. #ProtecttheInlet, n.d.). As location tags, Vancouver and Burnaby locations are connected to a large and heterogenous collection of hashtags, potentially reflecting cosmopolitan diversity within a highly populated area that results in diverse issue positioning. Regarding public pedagogy, the flood of posts from this region holds potential to shape dominant pipeline discourse by returning many posts in response to hashtag searches or in algorithmically promoted content. At the same time, the diversity of connected hashtags exhibits the flexibility of Instagram for hosting multiple issue discourses in adherence or opposition to dominant local thought.

Within this diversity of issue discourses situated in Vancouver, a curiosity emerges in the network graph. The tag for Vancouver, British Columbia is uniquely connected to what we might call a "west coast lifestyle" cluster (bottom left-hand corner), associated with elite and leisure interests such as working out (#gymmotivation, #fitness, #dance), healthy eating (#healthyfood), mental health (#forestbathingtherapy, #mentalhealth, #therapy), getting outside (#outdoorvancouver, #explorebc), and enjoying life in the Pacific Northwest (#pnwexplorations, #pnwonderland, #ourbeautifulbc, #keepitwild). Local media hashtags (#cbcvancouver, #narcityvancouver), as well as tourism campaign hashtags (#explorebc, #hellobc), link these posts to promotional and commodity networks common on Instagram, with possible intents to gain visibility, promote brands, or acquire cultural capital and even perhaps monetary compensation. Though some similar hashtags also appear within the central, heterogeneous section of the graph, this particular cluster is isolated from the rest of the Vancouver-related posts, indicating the decentralized nature of public pedagogy on Instagram and the potential for unique and disconnected patterns to emerge in relation to specific locations. At the same time, the cluster's adherence to both the platform economy and a pipeline resistance that performs a NIMBY ("not in my backyard") attitude exhibits the co-opting of resistant pedagogies on Instagram. The enmeshment of Instagram's commodity-oriented culture and affordances (Leaver et al., 2020) with a colonial conception of the natural world as a place for elite fitness, recreation, and exploration, combine to form a pipeline-resistant public pedagogy that does not undermine but rather reinforces colonial claims to land.

Also within the central, Vancouver/Burnaby-oriented space on the graph, Whey-ah-wichen/Cates Park is interestingly listed twice, both with the English toponym first (32 posts) and with the Tsleil-Waututh toponym first (29 posts), raising questions about toponymic

selection as part of Instagram's public pedagogy, particularly in relation to Indigenous place names. A Tsleil-Waututh ancestral village, the park has been the site of many pipeline-resistant events, including a 2017 Mother's Day water ceremony for Mother Earth (C. McKenna, 2017), and a 2018 launching of a flotilla of canoes and "kayaktivists" towards the Kinder Morgan Westridge Marine Terminal in Burrard Inlet, intended to create awareness of Indigenous-led pipeline resistance (*Protect The Inlet Flotilla Launches Trans Mountain Pipeline Protest (PHOTOS)*, n.d.). Interestingly, the two locations appear in different quadrants of the network graph. Reading through the two sets of posts, the content is largely parallel, both focused on the flotilla action in 2018. Only minor differences are evident, with the Whey-ah-wichen/Cates Park set containing a few references to daily life in the park, with ominous references to the nearby Kinder Morgan pipeline station and its inevitable detrimental impacts on local ecosystems. Differences between the post content associated with the two toponyms is therefore minimal, perhaps indicating users' inadvertent selection of one over another through interaction with suggested location names via Instagram's user interface. The presence of two toponyms indicates potential for public pedagogy to configure more intentionally around toponymic selection, on the one hand, but also to potentially disperse according to multiple location tags, on the other. As the meanings of location tags become blurred with one another, it becomes increasingly difficult to purposefully select location tags to enhance or complement an Instagram post.

Around the periphery of the graph are a variety of locations far from Vancouver/Burnaby and even beyond BC, each of which are linked with pipeline-resistant hashtags. The pipeline issue does not concern the southern coast of BC alone, but it also interests those in (clockwise from top): Blue River, BC; Toronto, Ontario; Seattle, Washington; Nanaimo, BC; Calgary, Alberta; Edmonton, Alberta; Montreal, Quebec; and Powell River, BC. Among this set, it is impossible to pass by the two Albertan cities, considering the importance of the Trans Mountain pipeline in Alberta, which is supported by political parties across the spectrum. These cities are linked to the central cluster by a number of edges, indicating anti-pipeline sentiment in Alberta. At the same time, the hashtags unique to this cluster focus on the #oilsands and pro-pipeline sentiment, as shown by #buildkm (for "build Kinder Morgan"). Additionally, they reflect an in-province focus through the predominance of hashtags (#yyc, #yeg, #calgary, #alberta) that reiterate the cities already connected using Instagram's location tag function. Considering the importance of the pipeline in the province, the nodes for the two Albertan cities are relatively

small. This relative lack of engagement could reflect any number of variables. For instance, predominantly pro-pipeline publics may not feel the need to post about the issue on Instagram as their position is endorsed by the state and represented in mainstream media. Further, recent popular research indicates that politics on Instagram reflect younger, more left-leaning users (Rothschild & Fischer, 2020), perhaps indicating that pro-pipeline positions, associated with either centrist or right-leaning politics, may not be represented on the platform. Finally, while anti-pipeline sentiment is certainly present in Alberta, it does not draw the large numbers of resistors to demonstrations and direct actions, which generate a large number of posts. While the current study cannot determine among these possibilities, what is evident is that public pedagogy on Instagram is contextual and geographical, intersecting with local politics, mainstream media, and platform cultures. The social media platform can host conflicting issue positions within a single location; however, these do not necessarily meet, dialogue, or intersect. Only a closer reading of posts themselves will reveal the extent to which dialogue across pro- and anti-pipeline publics is in fact part of the platform's public pedagogy.

Further revealing the ways issuefication on Instagram may be linked with location is another connected yet discrete cluster, this time around Blue River, BC, and linked with nearby communities of Neskonlith, Kamloops, and Moonbeam Creek. All of these communities are on Secwepemculecw – unceded Secwepemc territory – in central BC, through which a vast stretch of the pipeline passes. Unlike Coast Salish Territory, which has somehow been added to the location bank in Instagram, Secwepemculecw has not yet; it is thus hashtagged by users to draw links between colonial toponyms such as Blue River and the Indigenous territory under its Indigenous name. A movement of land protectors called the Tiny House Warriors, hashtagged in this cluster, has begun "re-establishing village sites and asserting [their] authority over [their] unceded Territories" (*Tiny House Warriors – Our Land Is Home*, 2020) by building small houses along the path of the pipeline, in Blue River and Moonbeam Creek, work that is mirrored by hashtagging the name of their unceded Territory even as the name is unavailable through Instagram. Geographically removed from the central Vancouver/Burnaby cluster, this cluster is also somewhat separate in the ways that it issuefies the pipeline. Here, #indigenousresistance is central, with hashtags #unistotencamp and #wesuwetenstrong linking the Trans Mountain to the Wet'suwet'en people who are asserting sovereignty over their unceded territory, resisting both the Coastal Gas Link pipeline specifically and the colonial system more broadly. Both the

Wet'suwet'en and Secwepemc peoples face internal conflicts between those who recognize the decision-making power of the Hereditary Chiefs, whose authority predates colonial law and extends across traditional territories, and band councils set up by the Indian Act to govern reserves (A. Manuel & Derrickson, 2017, pp. 119–120), as described in Chapter 5. Pedagogically, the hashtags linking to We'suwet'en not only connect in solidarity across Indigenous nations but also demonstrate how the struggles of the Tiny House Warriors are not localized but structured by the colonial state and thus repeat across Indigenous territories in relation to various extractive projects. These connections are reinforced by hashtags indicating decolonization, such as #landback, #unceded, and #noconsent, which call for Indigenous sovereignty. The Blue River region draws attention to the colonial violence of the pipeline on Indigenous women particularly, through hashtags such as #mmiw and #mmiwg (missing and murdered Indigenous women and girls) and #nomancamps, which reference the violence brought by remote camps of predominantly male pipeline workers on nearby communities. The ongoing structural violence faced by Indigenous communities is encapsulated by #fuckkkkanada and #ftp (for "fuck the police"), which overtly critique the white supremacist and military-oriented state. While these hashtags are connective, they also communicate powerful emotional responses to the issue, indicating how public pedagogy on Instagram is inclusive of affect, even through the limited affordance of the hashtag. Together, the prominence, uniqueness, and connectedness of this cluster evidences potential for Instagram's public pedagogy to be contextually and geographically specific, to feature rural and remote communities in addition to urban centers, and to indicate structural injustices by drawing connections among issues and between otherwise remote localities.

The coloniality of location naming practices on Instagram undeniably restricts anti-colonial public pedagogy, limiting toponymic selection in ways that favor businesses and official, colonial place names, and serving the platform's data gathering and corporate agenda. The platform's economy and commodity-oriented culture also intersects geographically to shift issue pedagogy, producing for instance a "west coast lifestyle" issue cluster associated with the pipeline in Vancouver. While large urban areas like Vancouver and Burnaby dominate public pedagogy and produce diffuse, heterogenous issue expressions, variance within the network graph provides evidence for how location tags and hashtags may together issuefy the Trans Mountain in geographically located, affective, and very pointed ways, with individual posts

collecting in particular locations around significant hashtags in ways that identify not only individual but also structural issues.

Zooming In: Location Profiles

While the flyover provides a broad vision of patterns, landforms, and infrastructures on the land far below, another way to know the land is to walk through it. Passing over rocks, fields, and city streets, pausing to look at interesting landmarks or plant life, noticing the nuanced smells of hot pine or food cooking over gasoline stoves, and feeling in one's body the surrounding energy – such things are only possible by spending intimate time in a place. To complement the location-hashtag network graph above, therefore, we now move on to a number of location profiles that provide insight into how various platform components such as imagery, text, and popularity metrics ("likes") intersect with location, including for aesthetic interruption as explored in Chapter 5. Location tags on Instagram range across various geographical scales, from precise intersections and specific businesses, through local communities and cities, to more abstract, political entities, such as provinces and countries. Since the Trans Mountain issue crosses local, provincial, and national politics, the pedagogical functioning of various location tags may differ according to geographical scale. After initial exploration of a number of locations – both prominent and marginal in the data set – each of the locations profiled here was selected to provide insights and comparisons that inform our understanding of public pedagogy. Burnaby Mountain, BC and Blue River, BC enable comparison between public pedagogy of urban and rural sites of front-line resistance, including how posts from these locations address the pipeline issue in relation to settler colonialism. The two locations of British Columbia and Canada reveal pedagogical possibilities in tagging more abstract, political locations, each linked with cultures and identities of their own.

In order to explore more deeply the visual, textual, and ranked components of the posts in each location, the following location profiles combine digital methods and close reading practices. In this case, digital methods enable analysis of the dominant textual and visual discourses associated with each location, according to hashtag frequency and engagement metrics (specifically, "likes") for images. While a focus on dominance does not address the full spectrum of visuals or draw attention to more marginal perspectives, it does reveal prevalent visual and textual discourses associated with each location, enabling comparison (Niederer & Colombo, 2019; Rogers, 2021). In relation to public pedagogy, popularity, visibility, and

influence cannot be ignored; while a wide range of discourses may be afforded on Instagram, it is only some that rise to prominence within the platform, with greater potential to shape public dialogue.

Each location profile in Figure 6.3 is made up of three components: (a) a list of the top 25 most frequently used hashtags in conjunction with that location; (b) a composite image of the top ten most liked images associated with that location; and (c) a close reading of the text associated with all posts from that location in dialogue with the image stack and prominent hashtags. Frequently used hashtags indicate how the Trans Mountain pipeline is issuefied and connected in relation to each location. Composite images enable analysis of images within their networks of relations, while still maintaining the privacy of users by making it impossible to reverse search individual images. Following the work of Niederer and Colombo (2019), each composite is composed of a stack of the top ten most liked images associated with the listed location. With the editing tools available in Photoshop (*Photoshop Apps - Desktop, Mobile, and Tablet*, n.d.), these images are layered on top of one another in a ranked order, with the image featuring the most "likes" on top. Finally, the opacity of each image is lowered to 40% so that each of the ten images is visible in the composite. Intended as a research tool rather than a visual summary, composite images provide means to analyze patterns in format, style, and content, and they are intended to be closely read in conjunction with other platform components. So, read in relation to the top 25 hashtags, the composite images help depict the dominant public pedagogy around the pipeline in each location. Finally, the analysis of the dominant visual and textual discourses and aesthetics (via composite images and frequent hashtags) are related to the posts themselves, through a nuanced, close reading of all of the post texts. Following the analysis in Chapter 5, these place-based analyses attend to the potential for Instagram's discursive, networked, and aesthetic public pedagogical elements to act politically by interrupting colonial geospatial orders and systems of governance.

Burnaby Mountain.[6]

Protest is central to Burnaby Mountain, the most frequently used location tag at 354 posts by 140 different users. Burnaby Mountain is the location of Kwekwecnewtxw, a Coast Salish Watch

[6] Burnaby Mountain is echoed in a number of other location tags, none of which are close to as prevalent: Burnaby, British Columbia (168 posts), Burnaby Mountain (View Point) (11 posts), Burnaby Mountain Conservation Area (8 posts), Burnaby Mountain Park (5 posts), Burnaby Mountain, BC (5 posts), and a few others that reference trails or conservation areas but are only associated with one or two posts. Camp Cloud is the location tag for 29 posts,

Figure 6.3 – Place Profiles

Burnaby Mountain

protecttheinlet	207
stopkm	174
stopkindermorgan	121
burnabymountain	86
kindermorgan	72
waterislife	69
burnaby	66
NoPipelines	43
vancouver	41
canada	39
Kwekwecnewtxw	36
bcpoli	34
nopipeline	32
uncededcoastsalishterritory	30
cdnpoli	28
protest	28
notankers	27
bc	25
waterprotectors	25
activism	24
coastsalish	23
solidarity	23
land	22
nokindermorgan	22
Pipeline	22

Blue River

tinyhousewarriors	257
secwepemc	91
stopTMX	63
nomancamps	53
TransMountain	38
secwepemculecw	28
nopipelines	18
ftp	17
fuckkkkanada	15
noconsent	13
noTMX	12
stopkm	11
transmountainpipeline	11
nofuckinpipelines	10
canada	9
landback	9
TMX	9
TransMountainBlueRiver	9
blueriver	8
indigenous	8
secwepemcNEVERsurrender	8
unceded	8
blockade	7
stoppingpipelines	7
mancamps	6

British Columbia

canada	37
waterislife	30
stopkm	29
nopipelines	27
transmountainpipeline	25
KinderMorgan	22
wild	22
beautifulbc	21
TransMountain	21
cdnpoli	20
bcpoli	19
climateaction	19
climatechange	19
NoTMX	19
pnw	19
pnwonderland	19
sierraclubbc	19
wildernessculture	19
protectbc	18
northwestisbest	17
stopkindermorgan	17
notankers	16
StopTMX	16
britishcolumbia	14
mec	14

Canada

tinyhousewarriors	22
StopKM	16
canada	14
KinderMorgan	14
transmountainpipeline	12
ClimateChange	10
nopipelines	10
secwepemc	10
stoptmx	10
firstnations	9
nomancamps	9
StopKinderMorgan	9
TransMountain	8
climatejustice	7
IndigenousRights	7
pipeline	7
Repost	7
wetsuwetenstrong	7
4x5	6
bbcradio4	6
blackandwhitephotography	6
bridgetkendall	6
deliveryandvoice	6
earthday	6
environment	6

House, and has been the site of many protests and demonstrations, including a months-long resistance at Camp Cloud. In addition to the expected anti-pipeline hashtags, the top 25 hashtags associated with Burnaby Mountain include #protest, #activism, and #solidarity. Also prominent are the Indigenous-focused hashtags #coastsalish, #waterislife, and #waterprotectors, along with

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locating posts at the resistance camp on Burnaby Mountain, and Kwekwecnewtxw, the Watch House on Burnaby Mountain, is referenced in 8 posts.

#kwekwecnewtxw, indicating the centrality of Indigenous concerns. Notably, the hashtag #land is used, rather than (for instance) "wilderness" or "nature," evoking Indigenous knowledge and identity as connected with the natural world. The prominent hashtag discourse harmonizes with the image stack, which reveals protest imagery of a woman holding up her fist, as well as multiple protest signs indicating "water is life" and "this is not free, prior, and informed consent," expressing water protection in the face of extraction (Horne, 2016) and Indigenous sovereignty, as supported by UNDRIP. Most noticeably, the stack also overlays multiple images of police officers, depicting state intervention on Burnaby Mountain, which occurred during demonstrations throughout 2016 and 2018. The prominence of imagery of arrests provides evidence of Instagram's emancipatory utility in hosting oppositional discourses and tracking police activity in its attempts to stifle political dissent (Poell & Borra, 2012). While the police officers are present, their body language is not violent; dominant posts thus represent arrests on Burnaby Mountain as peaceful. Considering Indigenous water protectors were treated more forcefully than non-Indigenous protestors on arrest (Spiegel, 2021a, p. 7), this image stack may reflect the privilege of high profile Instagram users who are either arrested peacefully or who witness peaceful arrests. In studying early pipeline resistance on Burnaby Mountain, Mars (2015) identified that privileged arrestees tended to see themselves as "exercising their right to civil disobedience as citizens of Canada" (p. 115), while "Indigenous land defenders and their allies on the mountain understood state institutions, in any form, as sites of further colonial oppression" (p. 115). So, while the dominant imagery and hashtags indicate the priority of Indigenous concerns and leadership on Burnaby Mountain, this privileged framing of arrest as civil disobediences evidences how public pedagogy on Instagram may favor and promote privileged or elite perspectives through popular accounts with large followings.

Turning to the texts of the 354 posts, Burnaby Mountain is characterized by content focused on "Indigenous led resistance in the form of legal challenges and civil disobedience" (1497151366, 2018). Despite this unity of focus, the blend of Indigenous leadership, high-profile environmentalists, and an urban population makes for a complex public pedagogy. Platform vernaculars and affordances intersect with both stereotyped and subversive representations of Indigenous peoples in relation to pipeline resistance, making evident how "relations between Indigenous and settler colonizer populations are [both] reproduced and reimagined through the connections made possible through social media" (Carlson & Frazer, 2020, p. 3). While user

identities are largely opaque within the data set, some explicit references to "settlers" reveal the heterogeneity of positions present on Burnaby Mountain, along the complexities of public pedagogy where Instagram posts are located within an urban and Indigenous protest space.

Many Burnaby Mountain posts express personal stories of inspiration as users spend time at the Watch House. A number are clearly written by settlers, who express gratefulness and awe for participating in Tsleil-Waututh ceremonies as part of anti-pipeline action. Many posts speak rhetorically to Indigenous leaders themselves rather than each Instagram user's audience of followers, expressing thanks and admiration through "shout-outs" and signal-boosting posts, which are common on the platform. By speaking directly to Indigenous leaders, users evoke a sense of relationality among pipeline resistors, which certainly developed among the diverse group on Burnaby Mountain. At the same time, following Instagram's cultures around personal branding, such posts may perhaps also serve to increase users' social capital by indicating close associations with public figures or by virtue signalling, whereby users post anti-colonial messaging to make themselves "more whole, more interesting, more cool, or more compelling" (Przybylo et al., 2018, p. 5), or to publicly express anti-colonial positioning through a low-stakes "move to innocence" (Tuck & Yang, 2012) in response to settler complicity. Such posts may serve to displace users' own whiteness – and/or culpability in colonial violences – through association with Indigenous leaders (see Grande, 2018). Here, we see how the intersection of platform vernaculars and colonial power differentials complexify public pedagogy.

In some cases, settler posts present romanticized representations of Indigenous peoples as traditional and specially connected to "Mother Earth," while depoliticizing anti-pipeline action even from the grassroots and front lines site of resistance on Burnaby Mountain. For instance, some posts focus on traditional songs and experiences with smudging, sidelining the pipeline issue that is central to resistance on Burnaby Mountain. Another post shares a sense of escaping mundane, modern life through time spent at the Sacred Fire:

> last night the water protectors hosted us with food, sharing wisdom and the scared fire, we share our tea while meditating for the land, the mother earth and our action for today to protest against the big oil. It rained and rained, really reminded me why we are here, it really pulled us together. The fire was so scared, especially being with such amazing groups of people, who are so altruistic and so giving, it immediately brought me out of that mode of being stuck in the our mundane everyday work, to pay attention and actually

> being part of this greater issue. It's quite a feeling of transitions towards awakening and recalibrating our frequencies, quite an ineffable and profound feeling. We stayed in the watch house, built by the indigenous people, traditionally use as a way to protect the land from intruders. Such a humbling experience to rest there with the blessing from the ancestors of the land. (19473915, 2018)

While they share powerful experiences, posts such as these remove settler culpability in colonial violences by erasing history and power and focusing on experiences of personal enlightenment. Instead, they romantically depict Indigenous peoples as outside history, "the (authentic) anti-modern subject… a favored foil (antidote) for whiteness" (Grande, 2018, p. 7), a representation Grande (2018) asserts is not only a historical phenomenon but one that has proliferated due to digital technology and social media. In relation to environmental issues such as the pipeline, photography already has a long history of framing Indigenous peoples within settler narratives, according to a "cliché figure: the ecological Indian, a tragic, noble figure always set in the past in the midst of a pristine natural environment becoming corrupted by Euro-Americans and often deployed to condemn the materialism and environmental abuses driving mainstream American [or Canadian] society" (Brígido-Corachán, 2017, p. 79). Instagram may compound this photographic gaze by lending itself to the spectacular, not only through filtering and framing tools but also through motivating metrics such as "likes" that encourage remarkable or stunning imagery and accompanying text. Instagram, therefore, may augment already spectacularized visual and textual representations of Indigenous peoples in its public pedagogy, rather than presenting aesthetic interruptions to the colonial "distribution of the sensible," in Rancière's terms. The platform does not stand alone, however, and also intersects with the greater landscape of Burnaby and Vancouver, which Baloy (Baloy, 2016a, 2016b) asserts is so highly decorated in Indigenous art that Indigeneity becomes both spectacular and spectral, where settlers are enabled to gaze passively as cultural observers rather than political participants (see also Grande, 2018). Though Indigenous leadership is consistently highlighted at Burnaby Mountain, therefore, some posts risk romanticizing Indigenous peoples and Watch House activities in ways that dehistoricize and depoliticize resistance, where "the valorization of 'indigeneity' within state and public discourses – and museums and art shows – may not correspond with improved access to political, cultural and economic rights for actual indigenous peoples" (LeFevre, 2013, p. 137). Instagram's public pedagogy may thus compound grounded issues, including those identified in

social movements, whereby settlers opportunistically "[represent] themselves as staunch allies while in fact embodying practices that further Indigenous transfer and displacement" (Barker, 2015, p. 56). Here, the public pedagogy of Instagram indeed maintains mainstream coloniality, both through the content of posts, which reflect longstanding misrepresentations of Indigenous peoples, and through visual affordances, which lend themselves to spectacularism rather than aesthetic interruption.

At the same time, many posts overturn colonial representations of Indigenous peoples and reflect meaningful solidarity at Burnaby Mountain, in keeping with growing coalition building that is arguably the greatest threat to extraction and pipeline development in the Canadian state (Preston, 2013). The centrality of Indigenous leadership and concerns is evident through posts applying a range of rhetorical tactics, some of which closely follow Instagram cultures. Many promote the work of the Watch House or Indigenous-led anti-pipeline campaigns, such as Protect the Inlet, including calls to action for Instagram followers to participate or donate to legal funds. Informational posts provide detailed background on legal issues surrounding pipeline construction, the relevance of UNDRIP, and introduction to specific Indigenous nations, leaders, and resistance. Some share updates about Trans Mountain construction on Burnaby Mountain, in keeping with social media's ability to track and make public in real time what is not covered in mainstream media. Others connect the issue transnationally, referencing similar colonial violences in users' home locations of Palestine and Taiwan. Where the focus is information, it is not evident whether Indigenous or non-Indigenous users are posting. However, some protestors identify themselves as settlers, along with statements such as "I stand with…" or "no more," expressing solidarity and unity, and drawing attention to the colonial nature of the issue. Included in this group are some posts that reference Indigenous leaders by quoting them in posts that are absent of any other personal commentary. The effect of these posts is the centering of these Indigenous leaders' perspectives and concomitant downplaying of the voices of the users making the posts. Other posts explicitly articulate Indigenous identities by referencing home territories, family members, Indigenous languages, and ongoing political action in ways that undermine colonialist tropes. Many share personal experiences, disrupting typified media representations with a human voice: "Our songs are powerful. I am exhausted. Thinking about how this is our medicine power. Reflecting on the beautiful synchronicity existing in these past few weeks. Mourning that it has come to this, but has revived warrior ways" (232940319, 2018).

Through the flexibility afforded in the Instagram text field and in conjunction with the Burnaby Mountain location tag, these posts by Indigenous people collectively counter what Coulthard (2014) terms "urbs nullius," reasserting Indigenous presence in an urban space even as they counter the pipeline. In these ways, both Indigenous and settler-identified posts apply a variety of rhetorical and concrete tactics available on Instagram to resist the Trans Mountain expansion, simultaneously undermining colonial representations of Indigenous peoples and pointing to the colonial nature of pipeline decision-making and infrastructure.

Posts from Burnaby Mountain reflect the complexities of public pedagogy within a diverse, cosmopolitan area, where people come together in anti-pipeline action across their various positions within settler colonial society. While the set provides evidence for cultures of virtue signalling within Instagram's public pedagogy and the maintenance of colonial representational regimes, it also reflects some of the ways Instagram enables pedagogies of solidarity and support as Indigenous and settler peoples come together in pipeline opposition.

Blue River.[7]

Despite being a small community in the interior of BC, Blue River is tagged nearly as frequently as Burnaby Mountain at 300 posts. However, these are made by only 14 users, indicating prolific engagement with the Trans Mountain issue by a small number of users who have put Blue River on Instagram's map. The vast majority of posts are connected with the #tinyhousewarriors, members of the Secwepemc nation, who have built small houses at strategic points along the pipeline in resistance to government approval of the pipeline on their unceded lands. Due to the small number of users, posts from Blue River likely represent the perspectives of the Tiny House Warriors. Hashtags focus directly on the local Secwepemc community and #unceded land, or #secwepemculecw, where resistance is central: #secwepemcNEVERsurrender. As a point of context, the Secwepemc have a long history of active resistance to colonial developments on their unceded territory, including to the Sun Peaks ski resort, the Red Chris Mine, and the initial Trans Mountain pipeline (A. Manuel & Derrickson, 2017). Considering the Tiny House Warriors are set up directly along the pipeline route in Blue River, the pipeline itself is unsurprisingly the focus of many hashtags, including #nopipelines, #noTMX, #stopkm, #transmountainpipeline, #nofuckinpipelines, #TMX, #TransMountainBlueRiver, and

[7] Along with Blue River, location tags link posts to nearby Moonbeam Creek (39) and Neskonlith Reservation (25), also tagged as Neskonlith #2 (30) and Neskonlith Indian Band (7), among a few other less-used tags.

#stoppingpipelines. The pipeline is, however, connected to two key related issues: man camps and Indigenous sovereignty. The hashtags #nomancamps and #mancamps link the pipeline to gendered violence associated with temporary camps of pipeline workers, who are known for subjecting women – particularly Indigenous women – to sexual violence (Gilio-Whitaker, 2019; Sweet, 2013; Whyte, 2017). Such camps are set up in Blue River, so these hashtags reference an immediate and localized issue. Regarding Indigenous sovereignty, a variety of hashtags are used to draw the nation-state into dialogue (#canada), powerfully express anti-colonial sentiment (#fuckkkkanada), call out colonial policing and surveillance (#ftp), and indicate the need to decolonize Canada in support of Indigenous sovereignty (#noconsent, #landback). The hashtag, #landback, in particular links resistance at Blue River to other current Indigenous actions for land decolonization and Indigenous sovereignty (Gray-Donald, 2020; K. Manuel & Klein, 2020; Pasternak & King, 2019), linking this small community to a movement that extends across the colonial nation-state and the 49th parallel.

The image stack echoes anti-colonial sentiment through a cross-posted tweet from the account of Kanahus Manuel, an active leader of the Tiny House Warriors. Through this image, we see how activists post across platforms to promote their messages to a wider audience. Faintly appearing on the left-hand side of the image stack are a collection of hanging red dresses, signifying missing and murdered Indigenous women and girls, whose deaths and disappearances have been linked with the man camps. Shared in relation with the pipeline issue, this image evokes again the gendered nature of colonial violence; similarly, the *2015 Indigenous Women of the Americas – Defenders of Mother Earth Treaty* "links the violence done to the Earth with the violence done to women, naming the crisis of missing, murdered, raped, and enslaved women in Indigenous communities worldwide" (qtd. in Gilio-Whitaker, 2019, p. 120). As if in direct resistance to this violence, the image stack features images of women only – women smiling together, wearing casual clothing, and proudly sporting traditional tattoos; profiled in the foreground of an image; and standing together with fists raised for solidarity. In one of the images, a woman is wearing a toque from The Bay, which, in the greater context of the hashtags, appears ironic, reducing the settler state as established by the Hudson's Bay Company to a cheap accessory. In at least a few images, the women appear to be on the land, with trees, powerlines, snow, and a bird taking flight in the background, countering typical spectacularized representations of Indigenous peoples and of BC's touristic wilderness landscape with images of

daily life on the land. In keeping with other expressions of Indigenous resurgence, these images contain

> no vast and uninhabited landscapes under dramatic clouds, no warriors on horseback, no nostalgic filters. Instead, they emphasize community, land-based activity, creativity, and everyday resistance. They challenge Western chronologies by setting together elements of the past and present and by connecting these to a future of struggle and *survivance* (Vizenor's term). (Brígido-Corachán, 2017, p. 83)

The visibility of these women aligns with women's prominence among anti-fossil fuel movements and climate action (Gilio-Whitaker, 2019, p. 119; Whyte, 2014). Within a patriarchal colonial system that instilled decision-making power among *Indian Act* chiefs and councils, women's organizing has largely functioned outside and against colonial systems (L. B. Simpson & Klein, 2017), as is the case of the Tiny House Warriors, who do not adhere to various Secwepemc benefit agreements with the state regarding the pipeline. In keeping with the online activities of water protectors at Standing Rock, Instagrammers positioned in Blue River aesthetically "[reattach] their bodies to the land in creative and meaningful ways… they reimagine Native bodies and reconfigure Native territories through digital networking sites" (Brígido-Corachán, 2017, p. 84). Through a combination of hashtags and imagery, the public pedagogy from Blue River is expressly anti-colonial, respatializing Blue River not as a pipeline throughfare but as a site of Secwepemc life and resurgence through aesthetic interruptions that challenge the colonial distribution of the sensible.

Blue River posts are dominated by a sense of being on the front lines, both of pipeline construction and of resistance to the settler state. Most posts seem to be located at the camp of the Tiny House Warriors, which blockades the pipeline route. A handful are longer informational posts about man camps and violence towards Indigenous women, and a few posts connect in solidarity to Camp Cloud on Burnaby Mountain or to the Wet'suwet'en resistance to the Coastal Gas Link pipeline. However, most posts are very brief, sharing life in the moment, on the land. Rather than pushing out calls to action, posts largely share updates from the front lines by people who are living in the tiny houses along the pipeline route and who identify themselves as Secwepemc.

Many posts linked with Blue River serve to document violent attacks and racial slurs directed at front line defenders, describing men who come to provoke fights or ram the tiny

houses with their trucks, posing threats to the land defenders' lives. A few posts pragmatically request identification of attackers. Most, however, document violence in posts that are angry in tone, containing angry expletives, exclamations, and words capitalized for emphasis. They depict violence as originating with white men or "red necks" in industry trucks. While such posts could be read as targeting individual perpetrators, the collection of Blue River posts as a whole contextualizes attacks in relation to misogynist white supremacy, including ongoing violences towards Indigenous peoples via man camps:

> The oil & gas industry has been one of the most violent against Indigenous Peoples. The man camps that house this industry has been called out for hiding serial killers and serial rapists. By housing thousands of men these oil and gas industry man camps breed violence, sexual violence, sexual attacks, domestic violence, mmiwg, drug violence, human trafficking... Our Indigenous women and girls are not SAFE! All man camps should be shut down and all Trans Mountain and Coastal Gaslink man camp permits should be revoked. It is the BC Oil and Gas Commission that grant these man camp permits without Indigenous Consent! (3673019266, 2020)

Man camps alone are not to blame, however, as posts not only call out individual offenders but link these violences to broader genocidal tendencies within the colonial state, including threats to Indigenous sovereignty and consent. Violences are supported through a pipeline consultation process that is viewed as a "fake and a fraud" (3673019266, 2019), rather than being a means for the Secwepemc to grant – or withhold – consent. In these posts, violence is immediate but also clearly runs deeper than individuals; rather, individual attacks are expressions of gendered white supremacy that is inherent to colonialism and necessary to the removal of Indigenous sovereignty and claims to land (Gilio-Whitaker, 2019; McLean, 2013; McLean et al., 2017), including the Secwepemc territory at Blue River. Through these connections to systemic components of colonialism, we see how public pedagogy from Blue River is able to document individual cases live and on location, using the imagery, texts, and tags available in Instagram, while relating these cases to broader issues. Using the platform to engage viewing publics, posts also implicate social media followers in these violences, calling them to "bear witness of our Indigenous Defence of our Secwepemc Human Rights!" (3673019266, 2019). The public pedagogy around violence therefore links to systemic issues in a way that demands accountability from what might otherwise be viewed as a passive social media audience.

In keeping with the emancipatory utility of Instagram for anti-colonial public pedagogy, posts from Blue River make public the policing of racialized bodies (Bonilla and Rosa, 2015) and track police activity (Poell & Borra, 2012) – particularly violent activity – in its attempts to stifle Indigenous dissent. Posts reiterate ongoing RCMP surveillance of the Tiny House Warriors, and they document arrests and violent assaults on land defenders by the RCMP. Unlike Burnaby Mountain, where arrests are framed in relation to civil disobedience as inherent to democratic participation, posts from Blue River draw attention to the violence and white supremacy of the RCMP, who are depicted as responding to land defenders as "savage warriors," threatening white settler industry (see Preston, 2013). Posts frequently use all capitals, expressing anger towards the Canadian state's militaristic protection of the energy industry at the expense of Indigenous people's lives and safety as they occupy their homelands. Frequent references to "genocide" within these posts contextualize RCMP violence within colonial history, where "nearly 100 years of attentiveness to Indigenous knowledge and practices enabled and contoured efforts to secure settler resource extraction through the surveillance, restriction, and disruption of Indigenous practices" (McCreary & Milligan, 2014, p. 123) as part of broader eliminatory purposes. Posts critical of the RCMP recur throughout the Blue River set, despite that the RCMP are known to surveil the social media of Indigenous land defenders and other activists, criminalizing those who organize against pipelines and extraction (Dafnos, 2019; A. Manuel & Derrickson, 2017, p. 226; Preston, 2013). The pointed and ongoing critiques contained in RCMP-related posts speak strongly to Instagram's pedagogical functioning in documenting and sharing corporeal experiences with state violence and surveillance, despite threats of digital surveillance.

At the same time that posts articulate violence, so do they express a strong sense of home and Indigenous resurgence, applying quotidian aesthetics that counter the spectacularized imagery that typifies both Instagram and colonial representational regimes. Many share love of the land and community, post imagery of tattoos, artwork, and cultural expressions, and signal the strength of Indigenous women in protecting the land. Posts reiterate the Tiny House Warriors' slogan, "Our Land is Home," along with references to "home sweet home." In contrast with British Columbian posts that depict spectacular landscapes as home, as we will see below, posts share quotidian updates from the blockade and on the land throughout the seasons, from summertime posts about "Enjoying my homelands, saw the first mosquito" (3673019266, 2020)

to “Autumn is here. Rainy days” (745131542, 2019), and through winter, when “snow is on the Mountain sides this morning” (745131542, 2019). In keeping with what Martineau and Ritskes (2014) term a decolonial “fugitive aesthetic,” such posts refuse colonial representation, appropriation, and recognition and instead re-presence Indigenous life on the land. In phrases such as “We are still here and it’s still snowing” (3673019266, 2020), spare text about the wintery land and unromanticized depictions of Indigenous life connect to the Tiny House Warriors’ actions for material decolonization through pipeline resistance; *we are still here*, asserts sovereignty outside of colonial recognition.

Also exhibiting a fugitive aesthetic are text descriptions of the land protectors at Blue River, who are predominantly women, in keeping with the photos of women captured in the image stack. Contextualized in relation to issues of gendered violence and genocide, posts about women and family sound strong; at the same time, they evoke life, humor, and love among relations. While many posts reference “women warriors” and highlight traditional face tattoos that might feed colonial stereotypes, posts also exhibit proud self-representation that refuse a colonial gaze. For instance, some posts casually mention “hangin out with my family” (3673019266, 2020) and share sister selfies from the front lines. Hashtags also humanize resistance by drawing it into family relations, for instance by sharing photos of a young #freedombaby and hashtagging #grandma and #grandchildren in a post about “Secwepemc families against tar sands” (3673019266, 2019). The intergenerational nature of these posts speaks to the Tiny House Warriors’ desire to prevent future disasters while protecting a historical homeland. The intermingling of fugitive self-representations and resistance to colonial imagery speaks to how Indigenous people’s social media posts may be mediated by an underlying awareness of a “settler gaze” (Carlson & Frazer, 2020, p. 2). For Indigenous peoples, posting may involve complex politics of navigating this gaze even while expressing hope and resurgent self-depiction. In this way, posts extend Giroux’ notion of the public pedagogue, providing pedagogical commentary and response to dominant representations, but by multiple public pedagogues located on the front lines and not within higher education institutions.

In keeping with the educational nature of blockades themselves (Ilyniak, 2014; L. B. Simpson, 2021), Instagram posts from the blockade of tiny houses are pedagogical, sharing both violences faced by land defenders and about Indigenous life in Secwepemc territory. Public pedagogy from Blue River counters colonial misrecognition of Indigenous peoples through a

fugitive aesthetic that visualizes Indigenous life and cultural resurgence outside of colonial regimes. Instagram is thus bound up with the symbolic force of the blockade in "creat[ing] a space for the control and practice of indigenous economic and political authority in the face of the cultural and economic dislocation forced upon them" (Temper, 2019, p. 18).

British Columbia.

While the location tags for Burnaby Mountain and Blue River lend themselves to the site-specific nature of resistance in these two locations, more abstract political entities such as provinces and countries serve alternative pedagogical functions. Rather than locating active resistance, the location tag for British Columbia, returning 105 posts by 51 users, is applied in posts that evoke the province's identity as a wilderness landscape, along with pride in BC's natural landscapes, in opposition to pipeline development. The image stack is completely devoid of human life, instead displaying whales and wolves, along with layers of aquatic and terrestrial life. Compared with the Burnaby Mountain set, which applied the hashtag #land, British Columbia posts reference the natural world with hashtags such as #wild, #beautifulbc, #pnw (for "Pacific Northwest"), #pnwonderland, #wildernessculture, and #northwestisbest, repeatedly and directly linking wilderness landscapes with provincial pride. Few of the top 25 hashtags link the Trans Mountain pipeline with other issues, aside from two climate-related hashtags, #climatechange and #climateaction, and the prominent Indigenous-oriented hashtag, #waterislife, which I return to below. Through the overwhelming focus on wilderness in both the imagery and hashtags, posts tagged British Columbia uphold the colonial distribution of the sensible through typical settler colonial wilderness representations of nature as a "spectacular object rather than as inhabitable space" (DeLuca & Demo, 2001, p. 547), as "pristine, pure, and unspoiled" (Gilio-Whitaker, 2019). Here, lands (and oceans) are protected to preserve biodiversity and to form stalwarts against environmental issues affecting urban populations (see Gomez-Pompa, 1992, p. 272), such as climate change. Problematically, Braun (Braun, 2002; Willems–Braun, 1997) has shown how the persistence of such wilderness tropes in BC overwrites colonial histories and present realities, burying Indigenous epistemologies and impacting how the land is managed both for resource extraction and conservation. These hashtag and image discourses therefore uphold what seems to be a longstanding wilderness identity in BC that impacts relations and decision-making.

The texts of posts associated with British Columbia largely echo love and pride for BC's wilderness landscapes. Some posts expressly objectify the natural world as a spectacle; one post, for instance, communicates how a meeting with wolves "fed my soul, heart, and lens" (195976455, 2018), making for not only a sublime moment but also great photography. Most posts, however, depict BC and its beautiful natural landscapes as "home" to diverse and valuable ecosystems, including resident human and more-than-human life. The word "home" evokes longevity in relationship to the BC wilderness, as one post captures: "Here is my home. The place I grew up. Its difficult to put into words a place so grande and totally wild" (3060968533, 2018). As home, natural landscapes are to be loved, protected, and preserved: "My love for this place is deep. I hope that everyone can experience some form of this. Find your piece of earth to fall in love with. And keep it safe" (3060968533, 2018). Many posts express deep emotion, including love for the natural world, grief for declining orca and salmon populations, and fear of climate impacts. While some emotion is personal, at times it is projected onto landscapes suffering the effects of pipelines and oil spills, as well as onto the bodies of animals; for instance, one post elaborates the grief of a mother orca for her dying calf. Taken together, posts about home beautifully echo Klein's assertion that in BC, "the fights against the pipelines have really been about falling more deeply in love with the land. It's not an 'anti' movement—it's not about 'I hate you.' It's about 'We love this place too much to let you desecrate it'" (L. B. Simpson & Klein, 2017). Certainly, some posts develop this love of land by complexifying traditional western understandings of nature, highlighting the interconnectedness of all life and emphasizing the centrality of land to Indigenous communities in ways that test the wilderness identity associated with BC. At the same time, the concept of BC as wilderness home may also function as a social imaginary that masks colonial relations and naturalizes settler presence on the land by working to "establish and emplace a sense of origins that works to transcend its colonial roots" (Cooke, 2016). In the context of BC, this social imaginary contributes to what Whyte (2016) calls the "homeland-inscription process of settlement" (p. 15). Homeland inscription not only involves "cultural and economic values associated with [settler] expectations for a certain quality of life" (p. 17), but it is also inscribed on the land, "physically engraved and embedded into the waters, soils, air, and other environmental dimensions of the territory or landscape" (p. 16) in unsustainable and destructive ways, and displacing Indigenous self-determination. In the case of Instagram, inscription is augmented through public pedagogy that leverages the social imaginary

associated with BC by linking it to anti-pipeline issue expressions via the British Columbia location tag.

In conjunction with imagery, hashtags, and text, the location tag evokes the communal wilderness identity associated with BC without acknowledging the violences and exclusions inherent to that identity. Homeland inscription shrouds destructive processes, often hiding them in plain sight, where "narratives of recreation and natural beauty… mask histories of landscape degradation or underlying sources of weapons or energy that remain invisible to many settlers, such as uranium mining or fracking areas" (Whyte, 2016). The social imaginary associated with "beautiful British Columbia" functions this way, where declarations of love for the BC wilderness as reason to stop the Trans Mountain pipeline erase ongoing extractive industries enabled by the BC government within the province's borders, including industrial logging, natural gas fracking, and mining. Alberta is presented as an ecologically destructive foil and is mocked for Premier Rachel Notley's 2018 ban of BC wine. Posts tagged British Columbia advocate for #pinotnotpipelines, express independence from Alberta's oil-based economy, and (again) share pride in BC landscapes: "the boycott will do little harm to those west of the Rocky Mountains, but will instead give them more of their delicious wine which they can use to toast the green trees around them" (1472344818, 2018). Here, the image and identity of BC as a wilderness landscape is selectively used in opposition to a pipeline from Alberta, which is implied to wreak ecological havoc through the tar sands and proposed pipeline, while violences to the land that are internal to BC are elided. Notably, many ecologically harmful extractive activities within BC take place on the unceded territories of various Indigenous nations that are made invisible via the location tag, which situates these posts in relation to the colonial governance of the land under the province of British Columbia. Here, the colonial toponymic selection available on the platform layers with colonial messaging of the posts through public pedagogy that falls neatly within BC's colonial social imaginary.

Posts location tagged with British Columbia also expressly address provincial politics in some cases, predominantly focusing on BC's exceptional position in relation to Canada. Though a few posts inspire political participation, such as letter-writing to government officials, most focus on information provision and critical commentary. Posts critique Canadian Prime Minister Trudeau's purchase of the pipeline, celebrate overturning of pipeline approvals by the Federal Court of Appeal, and call out the national government for lack of climate action and inadequate

engagement with Indigenous communities. Many profile the work and leadership of the Tsleil-Waututh, Squamish, and Cold Water Nations, as well as of the Tiny House Warriors, in defending the land and water against the pipeline; these often encourage donations to legal funds in support of these protectors, who have been criminalized by the settler state. Such posts make evident how "the anti-pipeline movement on the West Coast is indigenous-led, and it's also forged amazing coalitions of indigenous and non-indigenous peoples" (L. B. Simpson & Klein, 2017). At the same time, some posts position the federal government in opposition to a unified "us" in BC. For instance, one post describes how

> Will George, a Tsleil-Waututh First Nation man screams out in frustration and anger at the Canadian Government for allowing the expansion of a massive oil pipeline through the land his people have lived on for 30,000 years. His people do not want this pipeline. The BC Government does not want this pipeline and thousands of citizens do not want this pipeline. Why is the federal government of Canada and @justinpjtrudeau forcing this project on us? (6731558890, 2018)

Exclusive of any pro-pipeline groups within BC's borders, we see here how Indigenous peoples are included within what is depicted as a unified BC public. Posts such as this do indicate issue solidarity among difference, noting the uniquely historical relation of Will George's people have with the land. At the same time, they stop short of naming locations in BC as Indigenous land – in this case Tsleil-Waututh. This particular post also minimizes the differences between the interests of the "thousands of citizens" and Tsleil-Waututh concerns with the pipeline stemming from colonial histories – including (though not limited to) a stolen land base and further segmentation through Vancouver's urbanization, diminished food sovereignty resulting from oil spills and increased tanker traffic, and racist treatment in governance and legal systems (Jonasson et al., 2019; McCreary & Milligan, 2018; Spiegel, 2020, 2021a; Spiegel et al., 2020). Here, subtle incorporation of the Tsleil-Waututh people into the diverse collection of BC citizens leaves intact colonial relations, whereby "political opportunities accorded through regimes of recognition remain constrained, offering circumscribed channels for historically marginalised communities to enact political and legal claims" (McCreary & Milligan, 2018, p. 3; see also Coulthard, 2014). By using BC as a unifying location tag, therefore, posts reinforce colonial relations even as they invoke unity to speak back to the federal state, resulting in public pedagogy that reinforces mainstream coloniality.

The British Columbia tag does not, however, belong to BC. Two Albertans use the British Columbia tag to speak back to BC and to their own provincial government for lack of progress in ensuring the pipeline is built. Hashtags such as #riglife, #drillbabydrill, and #oilfieldtrashmakingoilfieldcash situate these users within Alberta's oil industry. Posts express Albertan provincial pride in the oil industry through hashtags such as #bertamadebertapaid, while critiquing British Columbians for protesting the pipeline despite their reliance on the oil industry: #bcwtf (for "BC what the fuck"). While these posts are small in number, they reveal pedagogical use of location tags not locationally but relationally, situating the place in relation to the user in a particular – in this case oppositional – way. In this relational context, location tags are used rhetorically, as users speak back to the tagged location, connect the location to key issues, or use other components of the post to story the location in a particular way.

By looking at the posts affiliated with BC, it becomes clear how location tags on Instagram are not only used to locate posts but also connectively and strategically, as users tap into the existing social imaginary surrounding BC in order to reinforce anti-pipeline sentiment. Rather than the fugitive aesthetic of Blue River, BC posts reflect a dominant representational regime that is activated in anti-pipeline provincial pride, over and against Alberta. At the same time, this very tag is used interruptively by users in Alberta as they oppose the dominant BC imaginary and issue positioning through contrary messaging.

Canada.

Similar to British Columbia, the location tag for Canada, encompassing 70 posts by 38 different users, enables users to link their posts with an abstract, political entity, indicating pedagogical functioning of the affordance beyond geo-locating of posts. Unsurprisingly, the top hashtags and images associated with posts tagged Canada focus on issues of federal jurisdiction, specifically climate policy and policy relating to Indigenous peoples. The hashtags #climatechange and #climatejustice are echoed by the statement, "PM Trudeau: climate leaders don't build pipelines," which can be faintly seen within the image stack. The Indigenous-related hashtags, #tinyhousewarriors, #secwepemc, #firstnations, #nomancamps, and #indigenousrights are also echoed in the image stack, which is dominated by Indigenous imagery and statements of Indigenous sovereignty, including an allusion to UNDRIP via the statement, "consultation is not consent." While these hashtags are used in relation to other locations as well, they take on new significance in relation to the location tag for Canada, which has a specific role in Indigenous

issues due to colonial histories and federal policies, such as the Royal Proclamation of 1763, which maintained Indigenous sovereignty over land, and UNDRIP, which Canada endorsed in 2016 and moved to implement in 2021 with Bill C-15. Importantly, the Trans Mountain issue is linked via #wetsuwetenstrong to Wet'suwet'en sovereignty in relation to the Coastal Gas Link pipeline, a connection that nationalizes the Trans Mountain issue as one current manifestation of ongoing and widespread colonial violence on Indigenous peoples via extractive industries. Hashtags linking the issue to the BBC news, via #bbcradio4 and BBC journalist #bridgetkendall, are also frequently tagged in the set, indicating the issue has garnered international attention. From the hashtags and imagery, it is clear that the location tag functions pedagogically, connecting pipeline-related issues to the nation-state.

Every post that tags Canada for its location is anti-pipeline. The texts of posts map onto the hashtag discourses by similarly addressing issues of federal jurisdiction, including federal climate targets under the Paris Agreement, national commitments to reconciliation with Indigenous peoples, and national pipeline approval and purchase, along with the overturning of approval through the Federal Court of Appeal. In addressing nationally-oriented topics, the public pedagogy of these posts also engages with national identity. A tone of anger dominates a number of posts that call out national white supremacist, colonial violence: six use all capital letters, many reference “Klanada” or “Kkkkanada,” one calls for the burning of the national flag, and another declares the need to “Unsettle Canada.” Posts decry genocide of Indigenous peoples, ethnic cleansing, and RCMP and military violence, and they declare: “First they stole our children from the land, now they steal the land from our children” (4157010032, 2018). Drawing attention to current violent expressions of colonialism, posts link the Trans Mountain to Wet’suwet’en resistance, along with the unjust state responses to the deaths of Indigenous youth, namely Coulten Boushie and Tina LaFontaine. Some posts are clearly located in Secwepemc territory, but the effect of the posts in relation to the “Canada” location tag reveal the national – rather than local – nature of these colonial issues. One post speaks directly to Canadian exceptionalism:

> We condemn the Nazis for their crimes. We condemn the Soviets for their crimes. Yet when corporations coerce imperial colonial governments to commit to the same atrocities, we are silent. We are paid to be silent… Sovereign territory is being invaded by the Canadian military and RCMP mercenary police with permission of the British

> Columbia government and on the orders of the Canadian government. Now consider this: we are taught in high school that bantustans are awful and South African apartheid is a blight on history, and South Africa suffered for their crimes. Yet you say nothing about the reserves that we funnel indigenous Canadians into, who already have lost their land and are now being invaded on the orders of the gods growth and jobs. Do you not see the blood on your hands? (1335183851, 2019)

In keeping with Thobani's (2007) analysis of how Canadians are produced as "exalted subjects," this post exposes the façade of settler superiority, questioning naturalized understandings of Canadians as inclusive, compassionate, and successful due to their industriousness. Taken together, these posts reveal how the location tag feature enables a public pedagogy that re-stories and speaks back to the colonial state, as well as the settler citizens constructed under its master narrative.

Posts speak back to Canada not only through the location tag but also by directly addressing Prime Minister Justin Trudeau via various Instagram affordances. Some posts textually provide information about Trudeau's policies and decisions, while others leverage creative expression available through imagery, creating caricatures and memes of the Prime Minister and "laughing through the rage" (1327041038, 2018). Focusing on textual affordances, we see that some rhetorically speak directly to Trudeau: "will you step up and stop the Kinder Morgan pipeline?" (212826832, 2018). Others use the @ function to tag Trudeau in their posts, rhetorically but also concretely drawing the Prime Minister into dialogue through social media affordances (whether he chooses to reply or not is another matter). Considering Trudeau's social media savvy, selfie fame, and popular participation on Instagram (Lalancette & Raynauld, 2019), these posts also interrupt Trudeau's shiny online image, linking the Prime Minister to colonial violences and unkept climate promises. As users link their posts to the location of the nation and to the Prime Minister, Instagram's public pedagogy becomes interactive and interruptive, with both rhetorical and connective force. Extending beyond discursive engagement with the national government, posts also admonish followers to donate, write letters, sign petitions, and join protests, through a public pedagogy that links issue awareness with citizen action.

Extending what we saw with the British Columbia tag, therefore, the location tag for Canada reveals not only rhetorical but also active and engaged public pedagogy, where the location tag is used not only to tap into Canada's national identity but also to directly address

political leaders and critique national policies. Linked with the Canada tag, many posts move beyond the discursive and aesthetic realms towards concrete action, in efforts to spur dialogue and political change. While the current study does not examine the efficacy of these efforts, it is clear that Instagram hosts at least an aspirationally action-oriented public pedagogy.

The Public Pedagogy of Place

Zooming out and zooming in on the landscapes of public pedagogy around the Trans Mountain pipeline issue, the location tag emerges as a key component in knowledge production, subject development, affective engagement, and aesthetic politicking – through both reinforcement and refusal of settler colonialism. While toponymic selection is limited on Instagram, due to both the colonial and corporate nature of the platform, the toponymic flexibility that does exist enables both place-based and place-connected public pedagogies, which incorporate place in both located and symbolic ways.

Instagram enables flexibility to tag locations across various geographical scales – from an immediate address to civic, provincial, and federal locations – as well as across diverse types of locations, including businesses, urban landmarks, and natural locations. At the same time, the platform plays a significant role in emplaced public pedagogy by limiting toponymic selection within colonial and corporatized regimes. By recognizing only colonial naming practices and restricting toponymic selection to a limited database, the platform restricts use of Indigenous toponyms that may foster more decolonial pedagogy. While users work around this limitation by hashtagging Indigenous territories, as in #secwepemculecw, the platform holds determining authority over toponymic selection and algorithmic promotion of particular place names to users designing posts. Considering the increasing value of social geodata, Instagram's economy is intermingled with toponymic selection and algorithmic promotion, serving the ends of data gathering and marketing. Such purposes also enter the posts themselves, as the pipeline issue bleeds into posts focused on personal branding and marketing, according to a west coast lifestyle in Vancouver, for instance. An exploration of other locations might reveal further influences of the platform on public pedagogy. For example, the specific site of Vancouver's Rickshaw Theatre is tagged 23 times in posts highlighting a concert to benefit the Tiny House Warriors, where #musician, #guitar, and #singer occur alongside anti-pipeline hashtags, embedding the issue with platformed marketing and promotion. In relation to place, Instagram is not simply a tool but an actor in the greater Trans Mountain public pedagogy.

A specific example of how personal branding intersects with location in this colonial issue is the uptake of the hashtag, #waterislife, in relation to both Burnaby Mountain and British Columbia. A translation of the Lakota phrase, Mní wičhóni, the phrase has been used to both capture the "importance of the relationship between the Standing Rock Sioux community and the specific rivers in question as well as to the more general relationship between humans, water, and the earth" (Rosiek et al., 2020, p. 9). In terms of anti-pipeline resistance, the phrase has translated from NoDAPL to other blockades and demonstrations opposing pipeline developments on Indigenous lands. However, the prevalence of the phrase at Burnaby Mountain and in posts linked to the province of British Columbia may indicate the phrase's uptake by mainstream environmentalists opposing the Trans Mountain, as has been noted in other social media contexts (Rosiek et al., 2020). While #waterislife still holds meaning, its mainstreaming online, and in relation to posts largely affiliated with colonial understandings of the land as wilderness, reveals the ways that Instagram's public pedagogy may transform meaningful and contextual knowledges into slogans for popular use and also for virtue signaling, as Instagram users apply the hashtag as part of their personal brand in places dislocated from the hashtag's origin. In this way, the deep meaning of the phrase, including its relations to a "particular confluence of rivers…where particular insights become possible, as the only place where certain words and concepts can be understood, or as a relative that teaches future generations essential lessons about life [is] filtered out by the extractive epistemic habits of public media discourse" (Rosiek et al., 2020, p. 9) on a platform where personal branding is the norm. In this way, the application of the phrase at specific locations reveals how "digital economies can absorb and shape radical and oppositional knowledge and praxis through the production, reworking, remaking, sharing, amplifying, and storing of digital content" (Przybylo et al., 2018, p. 3). On Instagram, therefore, platform cultures and norms interact in a public pedagogy that to some extent may discipline, appropriate, or mainstream subversive knowledges.

At the same time, the diversity among locations on Instagram reflects how subversive and anti-colonial expression is indeed possible, and it circulates differently in relation to location. These expressions are not merely discursive but also affective and aesthetic, in keeping with the #stoptmx issue public pedagogy described in Chapter 5. Affective publics emerge in relation to location; for instance, inspiration and empowerment radiate throughout protest posts at Burnaby Mountain, while anger and women warrior pride reverberate through posts at Blue River. While

this study does not examine post comments, such an analysis might shed more light on how affect circulates from posts through follower networks as part of Instagram's pedagogy. Through the posts themselves, however, it is clear that Instagram's public pedagogy counters a binary between public and private by blending personal experiences with political issues, and deep emotion with informational statements. At some times, affect is invoked by dominant representational regimes that appeal to located social imaginaries, such as the pride in BC's natural landscapes that is activated through pristine wilderness and wildlife photography. At others, a "fugitive aesthetic" counters such colonial representations, as is evident in posts tagged at Blue River by women representing themselves on the land *as they wish,* at times overtly countering colonial representations. Returning to Rancière's conception of aesthetics, such fugitivity questions the colonial distribution of the sensible through self-representation by Indigenous women and the instigation of geospatial orders that confound and reject settler regimes, particularly through the refusal of spectacular wilderness representations in favour of quotidian stories of the land and updates from the blockade. By refusing colonial representations in a located way, posts from Blue River

> reject the politics of recognition in favour of asserting Indigenous place-relationships and social spaces [that] challenge the core of both Canadian political economy and Settler identity (Coulthard, 2014a). Just as settler colonialism is created by settler collectives spreading through places, building spatially stretched relationships, Indigenous resistance simultaneously disrupts settler colonial space while reasserting Indigenous spaces, altering the spatialities of both. (Barker, 2015, p. 4)

Through the location tag, therefore, a fugitive aesthetic becomes situated through an anti-colonial place-based public pedagogy.

Place-based and place-connected public pedagogy.

The location tag selection enables both place-based and place-connected public pedagogy on Instagram. Where post imagery and text inform and are informed by location tags referencing specific, local places, a place-based public pedagogy draws on daily experiences and local landscapes. For instance, location tags on Instagram situate resistance by locating posts live and on location during protests, demonstrations, and blockades at Burnaby Mountain and Blue River, interacting uniquely with local cultures and politics in both resistant and conforming ways. Through the blend of spectacularism and solidarity, we see how Indigenous and settler resistance

find alignments and frictions – both experiential and ideological – among a heterogenous urban public on Burnaby Mountain in a public pedagogy that both takes up and undermines settler colonialism. At Blue River, local landscapes, families, and histories inform current resistance within an expressly decolonial pedagogy. The messages of local public figures dominate each place, whether these be the elite influencers at Burnaby Mountain with the privilege to witness or experience peaceful arrest, or the local activists in Secwepemc territory, whose prolific contributions to social media shape local public pedagogy and put Blue River on the Instagram map. Place-based nuances in public pedagogy counter colonial assumptions of land as generic, easily quantified and placed on a grid (Wolfe & Schneider, 2013, p. 151). Such colonial assumptions underlie universalized pedagogies that may be similarly applied across vastly different contexts – and perhaps also inform the predominant concept of the public pedagogue, who stands outside history and culture and is thus able to provide critical commentary. By contrast, place-based public pedagogy on Instagram reveals numerous nuanced pedagogical expressions informed by specific locations, positions, and experiences, some of which perform settler colonialism, while others interrupt it.

Where locally-connected pedagogy engages land-based epistemologies and works to undermine settler-colonialism and resurge Indigenous life, it reveals the potential for Instagram to host land-based pedagogy (Bang et al., 2014; Paperson, 2014; L. B. Simpson, 2014; Tuck et al., 2014; Wildcat et al., 2014). Beyond place-based pedagogy, land-based pedagogy requires resisting constructions of land as a resource and "negating presumptions about the absence of sovereign Indigenous futures" (Bang et al., 2014, p. 43). Here, Indigeneity is not available for settler appropriation within inclusive "green" narratives; rather, land-based pedagogy contributes to Indigenous repatriation (Paperson, 2014) and resurgence (Wildcat et al., 2014), as it might in supporting Indigenous decision-making authority over the Trans Mountain pipeline. Unlike more geographically dislocated platforms, Instagram's locative affordances enable imaged and textual depictions of experiences, knowledges, stories, and perspectives in relation to land across a variety of urban and rural spaces. For land-based pedagogy, such depictions must be accountable to the land, against extractive and non-consensual colonial use of the land that typifies western pedagogy, even within environmental education (see L. B. Simpson, 2014, p. 15). While posts themselves are not embodied but mediated, they may represent, share, and welcome expressions of "whole body intelligence" (L. B. Simpson, 2014) connected to land. At the same time as it

holds possibility, however, Instagram places significant restrictions on land-based pedagogy by limiting place names and making it easy to spectacularize and commodify locations through imagery and engagement metrics, sites of interest featured through tags and hashtags, and anthropocentric posts that apply locations as mere backdrops for personal branding. Posts that meaningfully engage with land-based knowledge, emplace Indigenous bodies on the land, present human bodies as part of ecosystems, and refuse place as a backdrop for human activity work against these restrictions, as in some of the anti-spectacular posts from Blue River and to a lesser extent, Burnaby Mountain. These examples show how land-based pedagogy is possible but demands resistance and appropriation of a colonial and corporate platform.

Not all located public pedagogy is place- or land-based, however, with abstract political entities of province and nation exhibiting an expression of place-connected public pedagogy. In this case, locations tags do not primarily evoke specific places, bodies, and events but hold representative significance and connective force. Here, public pedagogy applies the location tag to leverage social imaginaries associated with particular political locations and at times also for political action, concretely speaking back to political authorities. Connected to the location tag for British Columbia, posts draw the social imaginary of the BC wilderness into dialogue with the pipeline issue, essentializing the province's identity to unify a provincial public in solidarity against the pipeline and rhetorically speak back to antagonists in Alberta and the Canadian government. Inversely, posts linking to Canada do not invoke but rather call into question national identity and policies, deconstructing the notion of Canadians as "exalted subjects" in order to motivate transformation and decolonization. Linking to Canada and directly to Prime Minister Justin Trudeau, posts also exhibit an action-oriented pedagogy concerned not only with sharing information but transforming discourse and making political change. While it is outside the scope of this research to trace user networks, place-connected pedagogy may also contribute to network-formation, as users view, follow, or interact with those proximal or distant, within a located yet distributed geographically connective pedagogy.

Conclusion

Building on the conception of "issue public pedagogy" articulated in Chapter 5, this chapter analyzes the role of place in Instagram's public pedagogy by layering close reading practices with quantitative digital methods and visual methodologies that work with platform metrics, tracing dominant patterns in how place is taken up in relation to the Trans Mountain

pipeline. Initial exploration of the location tags reveals the inherent restrictions for anti-colonial public pedagogy on Instagram, where limited toponymic selection serves the platform's data gathering and corporate agenda, while upholding colonial naming practices. Despite these restrictions, Instagram pedagogies take up place in a variety of ways through diverse use of location tags, which reflects how settler colonialism circulates unevenly across geographical locations and in relation to located governments and colonial powers. Place-based pedagogies reveal how location tags are more than simply means of GIS-locating images, but they can be used to contest colonial notions of the land and may support decolonial, land-based pedagogies that are accountable to the lands were posts are situated. In keeping with the aesthetic nature of the #stoptmx issue public pedagogy in Chapter 5, for example, Trans Mountain public pedagogy from Blue Mountain aesthetically articulates situated politics through fugitive, place-based expressions that assert Indigenous presence on the land in ways that subvert normative, colonial representational regimes. Not all location tags situate public pedagogy, however; where posts apply tags to tap into social imaginaries or to re-story sites of power to inspire action and political change, Instagram's public pedagogy reveals itself to be place-connected. In contrast with binary conceptions of public pedagogy as either oppressive or emancipatory, place-based and place-connected public pedagogies are located yet connected, political, and bound up with power at various geographical scales, with multiple public pedagogues located in multiple places contesting and reinforcing settler colonialism in various ways.

While the graphs, images, and discussions regarding the role of place in Instagram's public pedagogy in this chapter work with straightforward, quantitative metrics such as tag frequency and "likes," an analysis of place also requires significant work in the gaps and margins. While the zoom out of digital methods provides vision of notable patterns in place-naming practices, and close reading in relation to settler colonial frameworks provides interpretive vision, the analysis in this chapter raises questions for digital methods research. Without looking for what was missing – such as Indigenous place names in Instagram's location tag database, for instance – a digital methods analysis would merely naturalize the colonial toponymy inherent to the platform. Considering this and other questions arising throughout the analysis of Instagram's public pedagogy, the next chapter turns to a reconsideration of digital methods for anti-colonial research.

Chapter 7: New Views into Doing Anti-Colonial Digital Research

When I loaded all of the #stoptmx Instagram images into Image Sorter – and all of the hashtags and location tags into Gephi – I felt like a god. It was that pre-COVID feeling of looking down from an airplane over a city and seeing everything – clusters of traffic at stoplights, turquoise backyard pools in neighborhoods with uniformly mowed and watered lawns, trees in rows on boulevards and absent in dense urban centres and haphazard in ravines – everything that made me feel I knew the city from my height in the sky: the city's patterns, movements, neighborhoods. Unsurprisingly, this same aerial view is "a key vantage affiliated with environmental consciousness as well as a tool of resource extraction and land development" (Houser, 2020, p. 17), a vantage I was able to mimic in studying public expressions of these very topics. After following #stoptmx in my own feed – my frustration at getting spammed by oil campaigns, annoyance at virtue signaling and silencing, questions about where and when to donate – digital methods enabled me to see every post together, mapped and algorithmically organized according to prominence, frequency, and issue community. What is profoundly elusive in the flow of Instagram posts across space and time could be archived, analyzed, and shared. With a god's eye view, I could visualize #stoptmx in its entirety, move carefully through its various contours, and begin to trace the narrative of this issue public pedagogy. For others, I could summarize, name, interpret, and communicate what I saw. The patterns were impressive, granted perspective, and gave a vision beyond each individual's own infinitesimal, algorithmically determined corner of Instagram.

Later, however, as I read through all of the posts at Burnaby Mountain and Blue River, my view shifted from the airplane window to the intimate moments of life on the city streets and rural communities. One by one, I read posts – angry, inspired, humorous, admonishing posts – imagined the users, and found myself affectively impacted, at times compelled to respond. My posture changed, and I found myself reading close to the screen, wondering what each post meant for the maps – how it modified, nuanced, undermined, or reinforced the god-views from Gephi. I started scribbling on the visualizations, querying their content and looking for threads between them and the individual posts. I realized some of the Instagram users were in danger and wondered how to articulate their posts and present the visualizations in ways that protected them from further violence. I also wondered how others in different positions might interpret their

posts differently from me – family members, fellow activists, or critics – and what it meant to interpret anonymous posts about a colonial issue as a settler researcher. While the god's eye view granted a sense of power over the data, reading individual posts made me inescapably accountable to Instagram users who remained anonymous to me.

In the early years of photography, Walter Benjamin reflected in 1935 on the power of photographic manipulation and reproduction to impact vision and therefore understanding. He wrote about how "photographic reproduction, with the aid of certain processes, such as enlargement or slow motion, can capture images which escape natural vision. Secondly, technical reproduction can put the copy of the original into situations which would be out of reach for the original itself… [meeting] the beholder halfway" (Benjamin, 1969, p. 1236). By zooming in and zooming out, speeding up and slowing down time through film and photography, Benjamin asserted that we do not (only or necessarily) see more precisely; rather, a photo "reveals entirely new structural formations of the subject" (Benjamin, 1969, p. 1239). As he describes:

> Even if one has a general knowledge of the way people walk, one knows nothing of a person's posture during the fractional second of a stride. The act of reaching for a lighter or a spoon is familiar routine, yet we hardly know what really goes on between hand and metal, not to mention how this fluctuates with our moods. Here the camera intervenes with the resources of its lowerings and liftings, its interruptions and isolations, its extensions and accelerations, its enlargements and reductions. (Benjamin, 1969, p. 1239)

In comparing methodologies that treat "images as data" to those that treat "images as content," Niederer and Colombo similarly comment on how zooming out on data enables new recognition of dominant patterns (Niederer & Colombo, 2019, p. 46), while zooming in through close reading creates new lines of inquiry into nuanced cultures and shifts over time (Niederer & Colombo, 2019, p. 48). Using Benjamin's insights as a metaphor for understanding the interactions between large-scale digital methods and close reading practices opens reflection on the possibilities and limitations of these methods, as a researcher like myself zooms in and zooms out of an Instagram data set to explore the formations of settler colonialism within an issue like the Trans Mountain controversy.

Through reflection on the research protocol (Figure 7.1) in relation to settler colonialism, therefore, this chapter considers how anti-colonial digital research might situate the researcher in

relation to the data rather than presenting a "vision from nowhere" (Caplan, 2016, p. 6). Specifically, the chapter examines ways settler scholars might undermine the colonial gaze on digital data and data visualizations, in efforts to support anti-colonial countermapping. Considering the historic and current purposes of data gathering for surveillance, control, and capital accumulation, it also examines possibilities and limitations for archiving and visualizing social media data as anti-colonial resistance. Finally, by returning to Latour's conception of the social world as performative, where various human and more-than-human agents participate in its making, the chapter concludes with a reflection on how engaging Indigenous "new materialisms" (Barker & Pickerill, 2020; Cajete, 2016; De Line, 2016; Marker, 2018; Nxumalo, 2017; Rosiek et al., 2020; Todd, 2016; Watts, 2013) might better inform anti-colonial digital methods by making plain the Eurocentric nature of the vision from nowhere and by introducing an ethic of reciprocity among researcher and researched.

Reconsidering Anti-colonial Digital Methods

As anti-colonial digital methods were still emergent at the outset of my research, the methods applied in this project draw on feminist (Morrow et al., 2015), anti-racist (Matamoros-Fernández, 2017), and critical (Fuchs, 2017, 2019) digital research, as outlined in Chapter 4. Specifically, the digital methods I followed are in line with previous scholarship recognizing the power imbalances embedded in digital data, seeking to make plain the ways that data is constructed, along with the various automatic and algorithmic operations that are at play (Leurs & Shepherd, 2017). Rather than presenting a "vision from nowhere," where the researcher is neutrally positioned, disembodied, and detached from the data (Caplan, 2016; Morrow et al., 2015), such critical digital methods situate the researcher in relation to the data and make plain the frameworks through which the data is being analyzed. In this vein, my research overtly applies a settler colonial framework for data analysis and foregrounds my position as a settler researcher, which shapes my interpretation of the various data visualizations and individual Instagram posts, along with the ways I articulate the findings. The outcomes of data analysis, therefore, including the various graphs, network maps, and image stacks, along with the methodological protocol outlined in Chapter 4, are presented and discussed as "countermaps," through a critical cartography that aims to expose the performance of settler colonialism in public pedagogy online rather than reifying the relations that are exhibited (Crampton, 2011; Hunt & Stevenson, 2017; Paperson, 2014; Rogers et al., 2015; Shepherd, 2015; van Es et al.,

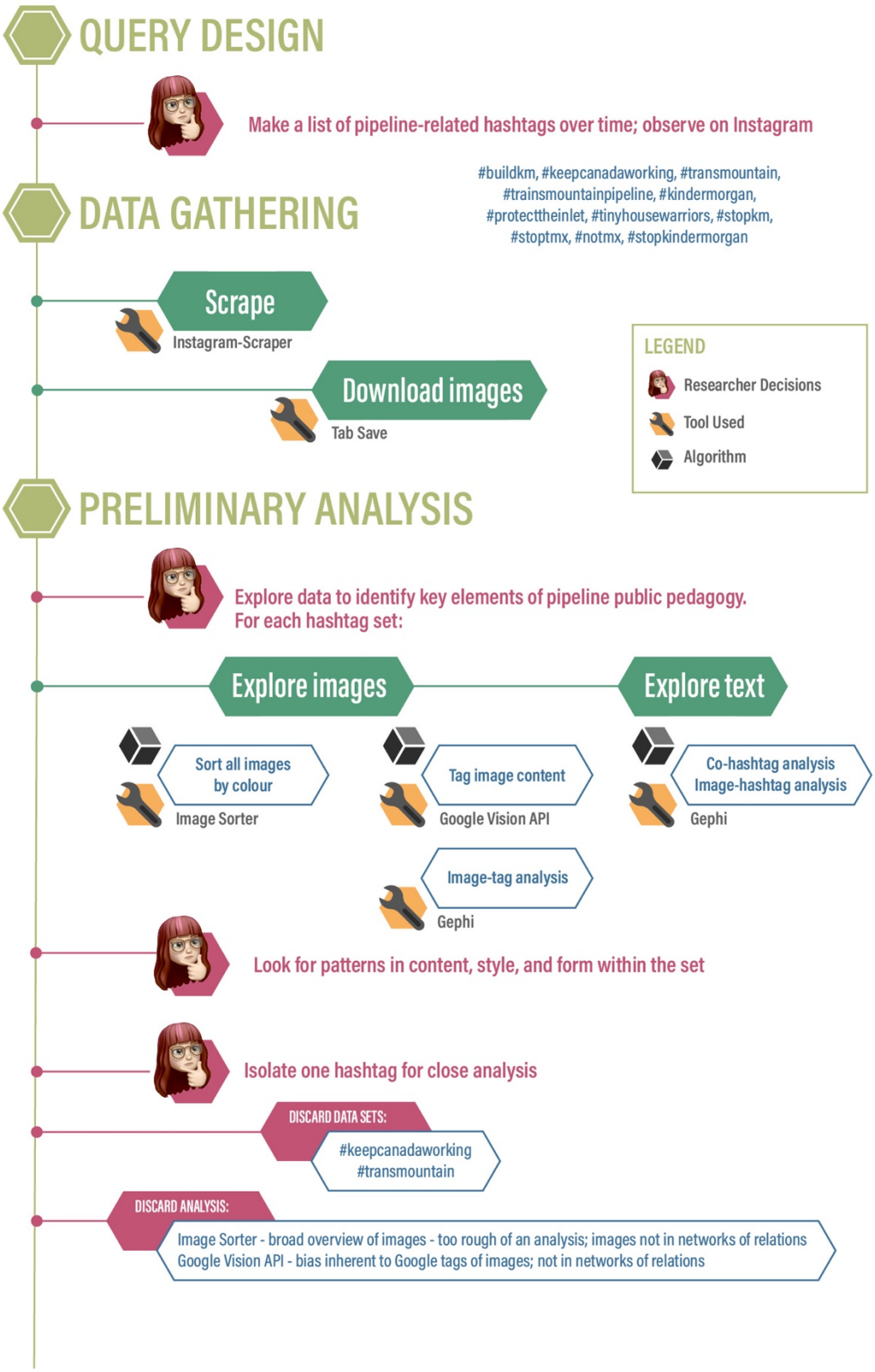
2017). Close reading of the data visualizations and subsets of individual posts ensures reflexive consideration of the maps' construction, while considering their significance to understanding pipeline public pedagogy on Instagram. Further, the discussions are driven by an anti-colonial – and in fact, decolonial – impetus to undo white supremacist hierarchies, end unjust extraction, and transform relations among people and with the land.

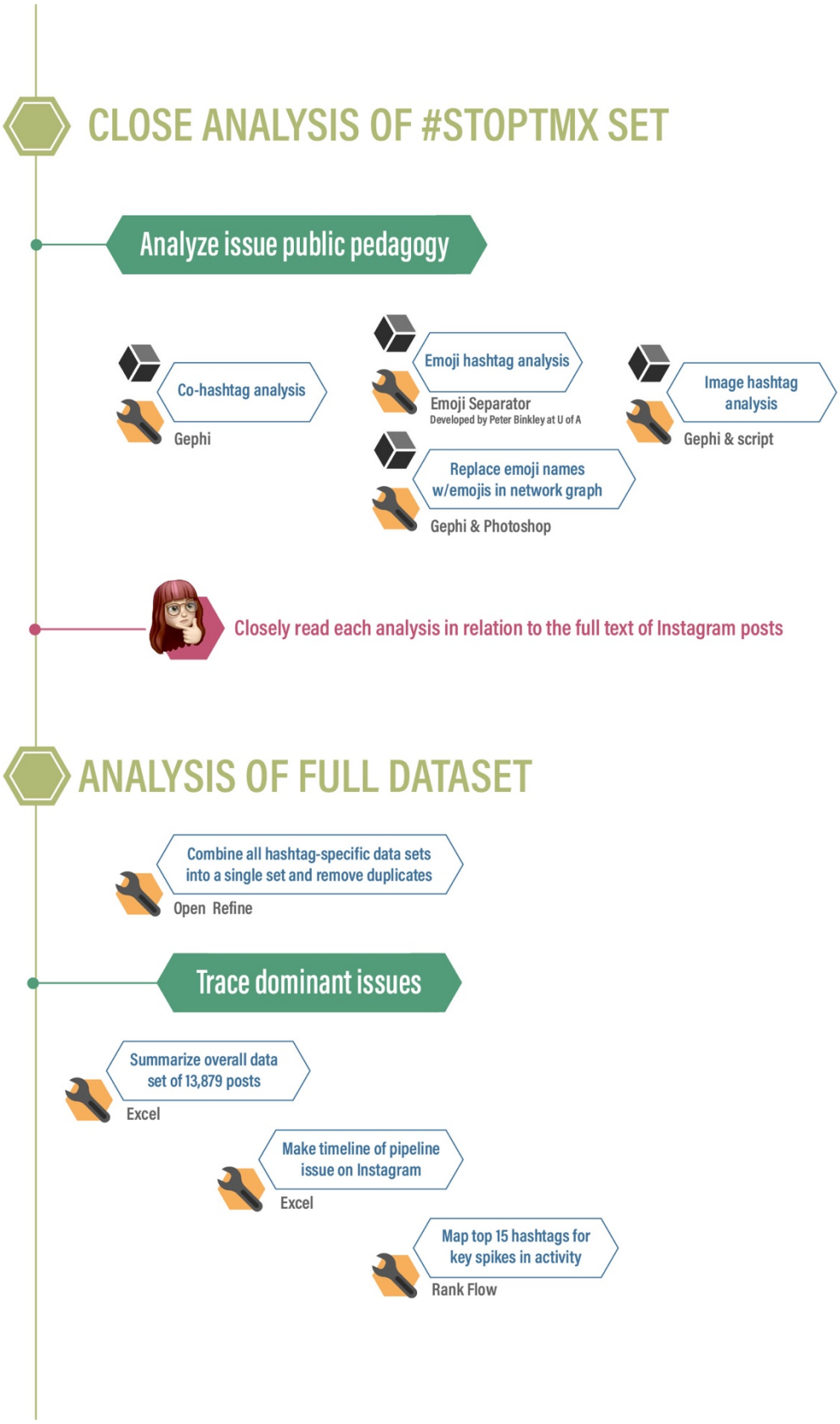
During the process of writing this dissertation, new research has emerged in anti-colonial digital methods that informs how I reflect upon my work. Counter to the data positivism inherent to much digital research, and in efforts to confront how heteropatriarchal white supremacy infuses research fields associated with information and communication technologies (ICTs), Duarte and Vigil-Hayes (2021) have recently articulated an approach to Indigenous feminist digital methods that "[leverages] a decolonial or anti-colonial critique of ICTs toward creating alternative structures – both tangible and intangible – that allow for the rapid and secure dissemination of information and knowledge for the benefit of marginalized peoples, centering the goals of women and girls" (Duarte & Vigil-Hayes, 2021, pp. 93–94). As Indigenous computer and information scientists, Duarte and Vigil-Hayes are experts in technical infrastructures and are particularly attuned to the material implications of ICTs, from energy usage to the impacts of ICTs among Indigenous communities. Their methods contribute to the visibility of Indigenous causes in scholarly spaces and support Indigenous political engagement through ICT infrastructures. Working with qualitative and quantitative methods, they follow a similar process to mine as they conduct both a "predive process … [like] that of a hawk scanning a lush and vast landscape, circling in an ever tightening gyre until focusing on a single point of prey or respite" (Duarte & Vigil-Hayes, 2021, p. 105) before conducting a "deep dive" where they "triangulate, document, analyze, narrate, diagram, periodize, and reconsider" (p. 105) subsequent learnings; however, they also bring a relational approach to research, purposefully "developing the networks of kin that enliven technicized practices toward Indigenous autonomy and sovereignty" (p. 97). Transparent about their process, they describe the nuances and decisions involved in creating a data set, their multiple means of analyzing the data, and their efforts to ensure results contribute to structural change, articulating the resistance they experience within a scholarly community that declares such nuanced efforts as "biased," making it difficult for them to publish their work.

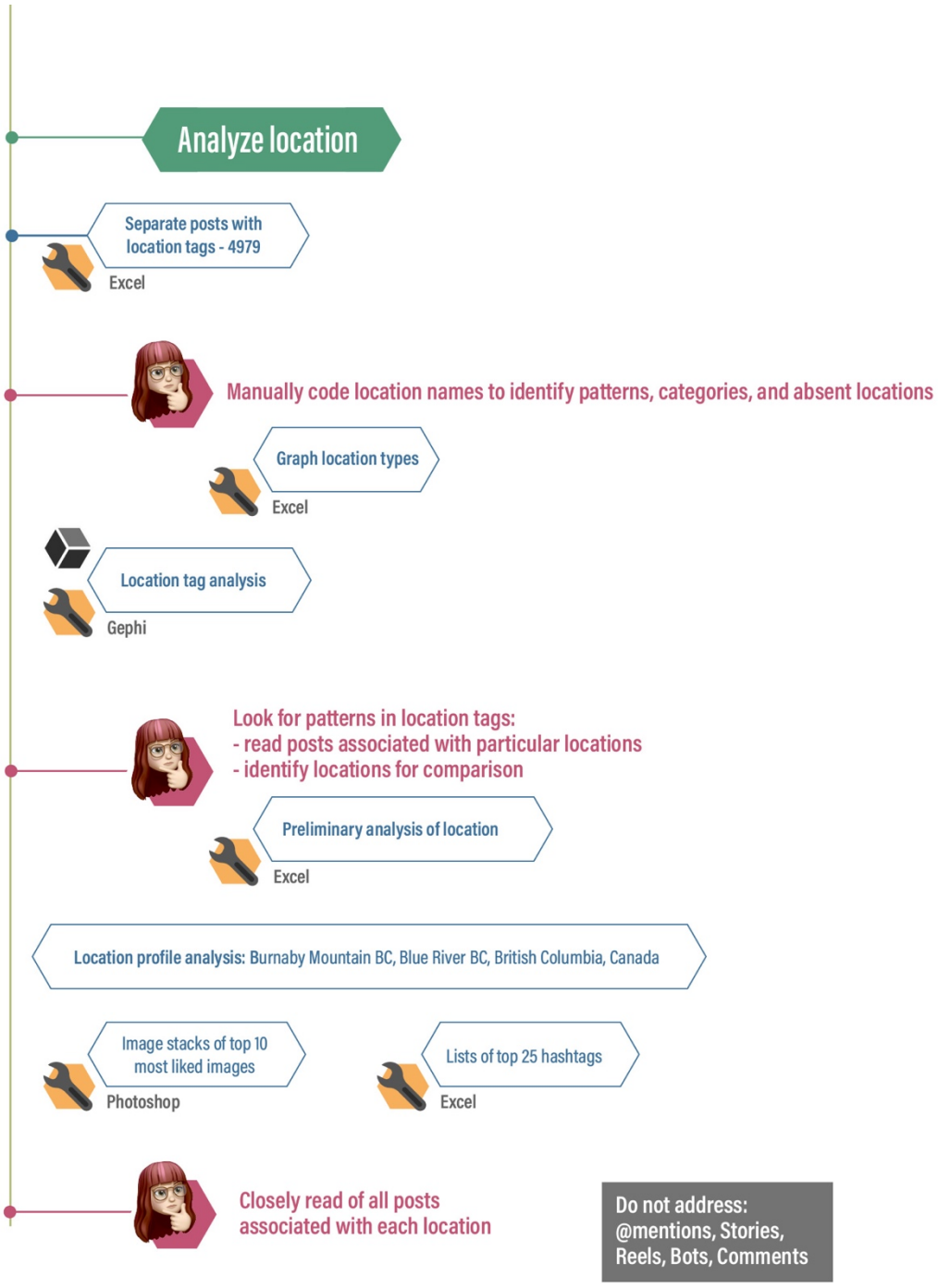
Considering the emergent nature of specifically anti-colonial digital methods, including the importance for considering the position of settler scholars in doing such work, this chapter critically reflects on the methods used in this dissertation, providing considerations for how anti-colonial digital methods might move forward. Here, I return to the research protocol presented in Chapter 4, recognizing the potential for a research protocol to be more than simply a "recipe" but instead a "living document gives precedence to collaboration, experimentation, reflection, transparency and flexibility in a research process, over the application of existing models or a debate on definitions and structure" (Niederer & Colombo, 2019, p. 52). Figure 7.1 presents a more detailed research protocol, including processes considered, attempted, abandoned, and selected throughout, in an effort to "do justice to the analytical choices made and the dead ends encountered throughout the research project" (Niederer & Colombo, 2019, p. 53), as well as to reflect the diversity of tools, algorithmic processes, and researcher decisions that interact in a digital methods project such as this. In the protocol, I indicate my own decisions and actions using my Memoji; digital tools and softwares with a wrench; and algorithmic interventions with a black box. I also note the places I discarded methods and data sets, along with the elements missing from Instagram analysis. My aim here is to show the messy and complex nature of digital research, along with the agencies and interactions of various human and more-than-human components, which upend the conception of a detached researcher functioning as a critical observer.

I revisit the research protocol in relation to a settler colonial framework and my own positionality as a settler researcher, dialoguing with Duarte and Vigil-Hayes (2021) along the way. In this, I follow settler scholars such as Sundberg (2014) and Baloy (2016a, 2016b), who, though they are working in posthumanist geography rather than digital methods, navigate methodological challenges in relation to their own scholarly backgrounds and settler positionality in order to illuminate the ways settler colonialism informs research and knowledge production in their field. Sundberg reflects upon her own methodological gaps in unquestioningly relying on Eurocentric scholarship and thought in ways that erased Indigenous epistemes, even as she attempted to question dualistic colonial thought (Sundberg, 2014; Todd, 2016). Her methodological reflections led her to more deeply consider and rely on Indigenous epistemologies in her research, remaining conscious not to appropriate or extract these but rather

Figure 7.1 – Research Protocol Revisited




CLOSE ANALYSIS OF #STOPTMX SET
Analyze issue public pedagogy
Co-hashtag analysis
Gephi
Emoji hashtag analysis
Emoji Separator
Developed by Peter Binkley at U of A
Image hashtag analysis
Gephi & script
Replace emoji names w/emojis in network graph
Gephi & Photoshop
Closely read each analysis in relation to the full text of Instagram posts
ANALYSIS OF FULL DATASET
Combine all hashtag-specific data sets into a single set and remove duplicates
Open Refine
Trace dominant issues
Summarize overall data set of 13,879 posts
Excel
Make timeline of pipeline issue on Instagram
Excel
Map top 15 hashtags for key spikes in activity
Rank Flow


Analyze location
Separate posts with location tags - 4979
Excel
Manually code location names to identify patterns, categories, and absent locations
Graph location types
Excel
Location tag analysis
Gephi
Look for patterns in location tags:
- read posts associated with particular locations
- identify locations for comparison
Preliminary analysis of location
Excel
Location profile analysis: Burnaby Mountain BC, Blue River BC, British Columbia, Canada
Image stacks of top 10 most liked images
Photoshop
Lists of top 25 hashtags
Excel
Closely read of all posts associated with each location
Do not address:
@mentions, Stories,
Reels, Bots, Comments

to listen as they speak back to her Eurocentric methodologies within a pluriversal world. Similarly, Baloy works against appropriation of Indigenous knowledge as she examines spectacular and spectral representations of Indigenous people in Vancouver. She effectively maintains "this dissonant zone of contested discourses, identities, and cultural authorizations to speak… [and] navigates to her own scholarly and cultural positionality/prerogative to illuminate structures of settler colonial hegemony rather than venture toward a cross-cultural precipice appropriating Indigenous knowledge" (Marker, 2018, p. 462). Following these scholars, I aim to explore what it might look like for settler scholars to conduct anti-colonial digital methods, keeping in mind my own objectives in analyzing the ways that settler colonialism is both constructed and undermined through the pipeline public pedagogy on Instagram towards more just decision-making surrounding land.

Zooming in and zooming out: Unsettling the researcher.

A central critique of positivist approaches to digital research is the presumed neutrality of the researcher, who often provides a detached, impartial, and disembodied approach to analysis. After all, in mapping issues, researchers "follow the actors" (Latour, 2005; Venturini, 2010), importantly recognizing the agency of various human and more-than-human contributors to an issue in a digital issue space but meanwhile remaining silent about the position from which researchers do the following and sense-making. As an example, Caplan critiques Manovich's data visualizations in Selfiecity for neutrally presenting the data without interpretation (Caplan, 2016). In such instances, digital methods problematically reflect issues identified by decolonial critiques more broadly by remaining silent about the researcher's "loci of enunciation," as Mignolo puts it (qtd. in Sundberg, 2014, p. 36): the geohistorical and biographic location of the researcher and related bodies of thought. Problematically, "silence about location is a significant performance that enacts Eurocentric theory as universal, the only body of knowledge that matters" (Sundberg, 2014, p. 36), as data becomes reduced to objectively measurable and presentable entities according to a colonial worldview that disregards relationality (Cajete, 2016, para. 34) and presents the researcher as both separate and epistemologically superior.

By contrast, anti-colonial digital researchers may clearly situate themselves in relation to the data, introduce interpretive frameworks, and make plain their processual and analytic decisions, following practices common to feminist and anti-colonial scholarship. In a settler colonial context specifically, where relations and identities are dictated by historical relations

and enduring policies such as the *Indian Act*, researchers already often situate themselves in relation to one another according to settler and Indigenous relations, as well as in relation to Indigenous territories, as with land acknowledgements. In digital research, an anti-colonial undermining of the "vision from nowhere" can also clearly articulate interpretive frameworks and settler positionality that inform analysis, visualization, and discussion of results, including for what purposes the analysis is put forward. Such positionality might also be reflected in a research protocol by depicting the many researcher decisions in the research process and interactions with other analytic agencies (such as algorithms and softwares), as I have indicated in the revised protocol (Figure 7.1). Rather than simply displaying steps, tools, and outcomes as a technical endeavor, the research protocol may instead reflect the multiple interpretive choices and abandoned threads that constitute the research process according to the mutually informing priorities of the data and the researcher; as findings and further questions emerge from the data, the researcher brings situated insight in relation to an interpretive framework. These interpretive choices begin right from the creation of data sets; indeed, data is not merely "gathered," but researchers "conscientiously construct datasets through careful curation" (Duarte & Vigil-Hayes, 2021, p. 100), and this process can be transparently described. Further, the research protocol can draw attention to the ways that researcher agency interacts with algorithmic components of analysis, which decenter researcher authority over the data, indeed making analysis a collective endeavor. By both situating the researcher and transparently expressing researcher decisions in such ways, it may be possible to undermine the neutral view that typifies digital research, towards an anti-colonial methodology that recognizes the agency of data and algorithmic elements of the analysis and foregrounds interpretive frameworks and purposes.

Further, analytical processes may support anti-colonial accountability and reciprocity in digital methods, where the researcher explicitly addresses relations not only with abstract data but also with the bodies, lands, technologies, and other more-than-human entities abstract data represents. In a context where data positivism prevails, I found it difficult to speak about or even conceptualize accountability and reciprocity towards data until working intimately with the data through both distant and close reading practices. Zooming in and zooming out of the data enabled me as a researcher to both visualize large-scale patterns but also be held accountable by the content of individual Instagram posts. As described above, by zooming out, I was able to identify societal patterns and aberrations, leading to large-scale visions for anti-colonial

transformation. At the same time, by zooming in, I was confronted with the dangers faced, affects invested, needs put forward, and individual stories represented, which are all distilled into data points in the network graph. With care to how text was quoted and images displayed, I could share these dangers, affects, needs, and stories in order to reveal how settler colonialism is indeed not a done deal but instead is contested through Trans Mountain's issue public pedagogy, contributing to larger decolonial processes to restore land, reconfigure relations, and restructure decision-making; determining where and how these findings are shared with the public in the future will also be informed by these aims. Zooming in restored the bodies behind the data visualizations (R. L. Hill, 2020), which is crucial to the "good work [of data visualizations] in the world, to change people's minds, to spur people to action towards making Earth a more just, safe, and beautiful place to be" (R. L. Hill, 2020, p. 393). When paired, these two processes enable broad vision while still maintaining the embodied and relational nature of both the data and the researcher through a twinned process that holds the researcher to account and, even further, necessitates an ethical response.

While the language of zooming evokes vision, therefore, it may also be considered a "doing," in the words of Barker and Pickerell (Barker & Pickerill, 2020), implicating the researcher in the data being analyzed. By thinking about zooming as "doing" rather than seeing, an act often linked with disembodied thought (as in, "I see"), it is possible to think of anti-colonial digital research as an embodied practice with real effects, which

> necessitates valuing and acknowledging the roles, affordances, emergence and collaborations of animate and inanimate non-humans. The temporalities of doings are just as important as their spatialities. Doings are practices and processes that continuously renew, are ongoing, moving, evolving new relations and generating new forms of the world. (Barker & Pickerill, 2020, p. 14)

As embodied, digital research therefore implicates the researcher's identity, positionality, geographic location, and relation to the topic. It also requires accountability by the researcher, who is not indeed outside or superior to the data but is instead committed to examining "*what our doings are actually creating* in terms of relationships to the human and more-than-human world, internal identities, and attachments to powerful political assemblages" (Barker & Pickerill, 2020, p. 3, italics added). Though digital data is relatively easy to obtain, map, and analyze, therefore, anti-colonial digital researchers would

> not be entitled to that knowledge. Instead, they would need to consider what they are giving back to the agents co-constituted with them in the inquiry and the broader network of relations in which the encounter is nested. What is reciprocally given in acts of inquiry might include substantive service to purposes other than one's own, or symbolic gestures that acknowledge interdependence. (Rosiek et al., 2020, p. 10)

By bringing research into public contexts towards concrete change, digital research might be considered dialogical and reciprocal, rather than an extractive process, where the researcher is clearly positioned in relation to the human and more-than-human agents participating in the data. Such reciprocity might be reflected by something so simple as an acknowledgment of the algorithms participating in analysis – or something more substantive, such as following questions posed by the data, as by querying whether the naming practices surrounding Whey-ah-Wichen/Cates Park carried anti-colonial import. Further, reciprocity may involve actively supporting the anti-colonial aims emerging from the data through analysis, visualization, and dissemination, as indeed I am considering as I contemplate where and for whom to publish this dissertation, including for academics, anti-pipeline activists, mainstream environmentalists, and the Indigenous land and water protectors dedicated to Land Back. While research carried out directly with communities can be returned to those communities, to whom do I "owe" this research that relies upon anonymous data points extracted from Instagram via a Python script? How I choose to respond to this question is critical since the digital researcher, as a relation, cannot function only as a critic or interpreter but also as an anti-colonial co-participant creating alternative worlds.

Recognizing and returning the colonial gaze.

The camera, according to Benjamin, has the power to reveal new structural formations of the subject. What Benjamin does not address, however, are the ways this visual force is shaped by power relations such as those inherent to visuality under settler colonialism, which impact not only interpretation and reproduction of users' Instagram posts but also the interpretation of data visualizations. Media representations have long been shown to be bound up in settler colonialism, as outlined in Chapter 3. In visual media such as film and photography, colonial representations are characterized by what has been described by film studies scholars as a "colonial gaze" (Amad, 2013; Kaplan, 1997), a "visual pathology" (Amad, 2013, p. 49) that transforms colonized bodies into specimens for view by those in power and commodify land into

a container and resource for settler exploits (Marker, 2018). These issues extend to data visualizations and visual methodologies. Leurs and Shepherd note the discrimination inherent to many data visualizations, where "traces of European expansionism continue to imbue measurements and representations of the social world" (Leurs & Shepherd, 2017, p. 223), following a "longstanding colonial tradition of harnessing visuality for control and profit" (Shepherd, 2015, p. 1). Whether pertaining to bodies, land, or data visualizations, the colonial gaze separates the perceived from the perceiver, who holds the power to interpret and act on what are understood to be mere objects rather than agents, severing relations and possibilities for ethical behavior (Watts, 2013).

Where reproduction of Instagram images and the creation of data visualizations for research have potential to exploitatively reflect and reinforce colonial visual regimes and power relations, therefore, anti-colonial digital methods may instead support readers to recognize the mechanisms of these regimes, returning or refusing the colonial gaze. In the case of settler researchers such as myself, anti-colonial digital methods may work to redirect the settler gaze (Carlson & Frazer, 2020) reflexively back towards settler colonialism and settler participation within it (Baloy, 2016b). Further, settler researchers may carefully attend to expressions of Indigenous visual sovereignty (Brígido-Corachán, 2017; Norman, 2014; Raheja, 2007), which challenge western logics of representation while simultaneously intervening towards Indigenous political sovereignty more broadly, learning from these visions and supporting their anti-colonial aims.

To a certain extent, digital methods already undermine the colonial gaze by analyzing images and textual data within networks of relations rather than according to a singular observer, undermining the hierarchical categorization inherent to colonial thought and displacing the researcher as the sole locus of knowledge. However, working through the active and subjective steps of data construction and visualization reminded me of the ways my position within colonial relations shapes my engagement with data, resulting in my need to overtly name and address the colonial gaze in digital methods. In Figure 7.1, I have sought to incorporate some of the ways I considered and represented the data from an anti-colonial standpoint, including the limits I faced. For instance, despite the ease of analysis offered by algorithmic tagging and analysis of images, I decided against using Google Vision API due to its documented inherent cultural and racial biases (Kayser-Bril, n.d.), which would be contradictory to my research. As another example, I

actively considered the limits of the platform from an anti-colonial standpoint, attending not only to what was present but also what was missing in data sets. So, in analyzing the location tags associated with the Trans Mountain hashtags, I focused not only on the location tags that were used but also those Indigenous toponyms that were absent, opening questions about what types of location tags are prioritized on Instagram and how this shapes public pedagogy. By treating the platform as neutral and accounting only for what is there, Indigenous place names and territories (and therefore ways of seeing the land) would remain uncounted and therefore invisible in an analysis that unquestioningly prioritizes the official toponyms and business addresses that dominate Instagram. By contrast, an anti-colonial analysis looks for what is missing, what the data set as structured by the platform has ignored, particularly according to colonial regimes of data gathering and representation.

While I was able to reflect some researcher decisions in the protocol, so many smaller realizations and choices along the way still remain beneath view. For instance, for weeks I interpreted the hashtag, #savagefam, in the context of other familial and #womanwarrior-oriented hashtags affiliated with posts from Blue River. Then, upon a casual scroll through my own Instagram feed, I saw a promotional poster for a concert by the artists, Savage Fam, that revealed to me my lack of knowledge in a local music scene and Indigenous culture, resulting in my misinterpretation of the data. Here, I was confronted with how, despite the ways that digital methods prioritize the researcher as knowledge-holder, it is impossible for any one researcher to make sense of a vast data set from social media, which puts the researcher into interpretive encounters with diverse experiences, cultures, locations, and positions. Self-reflexive, transparent, and humble engagement with the data helps to undermine the colonial gaze by positioning the digital researcher in relation with the data, where the data is not a mere object or tool but itself reflects knowledge beyond what the researcher possesses. Only with such an acknowledgment is it possible to for the researcher to respond accountably to the data and the various actors it represents.

While digital methods research already recognizes the researcher to possess an “active research attitude” (Venturini et al., 2015), with the potential to “facilitate collaborative research processes, drive debates or aid analyses” (Niederer & Colombo, 2019, p. 49) through active engagement with the data, anti-colonial digital methods might more explicitly seek to address a colonial gaze on the data, overtly revealing the constructive, political, and rhetorical work in

processing and visualizing data. Feminist researchers have already led the way in this area, emphasizing how datasets and visualizations reflect situated knowledges in their construction, and emphasizing how digital researchers should consider the impacts of data analysis and visualization on specific bodies (R. L. Hill, 2020) and political efforts (Ricker et al., 2020). By clearly situating the researcher and articulating researcher decisions and gaps, anti-colonial digital methods might better name, address, and undermine the colonial gaze while accountably attending to the knowledge and agency distilled in the data.

Archiving and countermapping social media data as anti-colonial resistance.

Benjamin draws our attention to the ways that image-based technologies can visually document and highlight for us images which escape natural vision, like the micromovements and moods of a spoon en route to mouth. This process, however, is not as neutral as Benjamin proposes. Considering the historic and current purposes of data gathering for surveillance, control, and capital accumulation, there is potential for digital methods to reinforce extractive data processes, naturalize the relations embedded in the data (such as the coloniality of naming practices), and surveil the activities of marginalized groups, to their further harm. As articulated in Chapter 4, this is why ethical consideration of what and how data is communicated is central to undermining colonial master narratives while ensuring the safety of people already subject to surveillance and violence. While potential harms to vulnerable social media users require careful attention, however, anti-colonial possibilities remain in archiving and countermapping social media data. Returning to the critiques of social media's distributive nature, where platforms structured by "communicative capitalism" (Dean, 2005) result in the circulation of messages so endless and unceasing that meaningful and counterhegemonic action is prevented or at least minimized (Boler, 2008), archiving and countermapping social media data may in fact present opportunities for witnessing and reveal crucial patterns with potential to consolidate resistance.

I have followed the Trans Mountain pipeline issue on Instagram for years now. I follow many of the key Indigenous, legal, and environmental activists involved, along with the pro-pipeline and Canadian energy campaigns. Long-term attention to the issue over social media has enabled an ever-expanding vision of online expression surrounding the issue, including the key players, networks, and circulating discourses. However, the process of collecting, archiving, and analyzing Instagram data for the current research project enabled forms of witnessing that extended beyond my own ad hoc perusal of the issue, countered surveillant and corporate

collection of data, and led to key analyses to support anti-colonial aims. Archiving Instagram pipeline-oriented posts across multiple years and in accordance with various hashtags enabled consolidation of messages and pedagogies that may otherwise be lost to the unceasing and algorithmically determined flow of social media. Zooming out to analyze and countermap the full set of data was invaluable in revealing the colonial contours and boundaries, overlapping agendas, and influence of the platform itself in public pedagogy. Following countermapping practices by representing the data in new ways provided opportunities to clarify and amplify Instagram expressions according to anti-colonial justice. In conjunction, zooming in on archived posts recalled to mind the bodies, lands, and relations visualized in the countermaps and raised ethical questions about how to represent, interpret, and discuss the Instagram texts and images. Through the paired processes of zooming out and zooming in on digital data in accordance with an anti-colonial framework, therefore, it became possible to identify patterns and anomalies while also storying relations in ethical and accountable ways.

These acts are indeed resistant, where anti-colonial archiving and reproduction of Instagram posts opposes data gathering for digital surveillance of land defenders, and countermapping data disputes the colonial and corporate visual campaigns, graphs, and maps that are typically used to promote energy infrastructures and megaprojects (Spiegel, 2021b). Archiving and countermapping data gathered over time may therefore contribute expressions of what Spiegel (2021) calls “visual resistance,” which are “practices of seeing, watching, witnessing and representing” (Spiegel, 2021b, p. 1) that interrogate systems of oppression and support resistance, “not merely in given moments but also over time, appreciating interconnected social and political relations around visual practices” (Spiegel, 2021b, p. 2). Spiegel’s use of language is precise:

> I use the term “seeing” here to refer to becoming aware, more than just with one’s eyes; “watching” implies conscious attention over a period of time, for example, to guard or monitor violations of rights or health, safety or environmental transgressions; “witnessing” refers to seeing that allows attesting to specific facts or bearing witness to certain events (such as witnessing court proceedings and acts of brutality). Seeing, watching and witnessing are always necessarily situated and specific practices culturally, politically and temporally, embedded in particular aspirations and diverse positionalities. (Spiegel, 2021b, p. 3)

While Spiegel's notion of visual resistance focuses on sight, the embodied and active practices involved in seeing, watching, and witnessing recall to mind Barker and Pickerill's conception of "doings," involving accountable generation of new relations. In these ways, the conception of a vision from nowhere is completely undermined; not only is the vision situated somewhere, but it is also a vision that demands ethical response.

Understood as resistant seeing, watching, and witnessing, countermapping is therefore not limited to the interrogation of map making processes but also involves drawing the researcher and viewers into ethical relations with the maps, which demand response. Such response may involve multiple researcher actions, including the visualization, interpretation, representation, and dissemination of the data according to the anti-colonial aims expressed through the data, as alluded to above. Crucial to recall, of course, is towards what purposes and audiences this countermapping is aimed, particularly as archival work with social media and digital countermapping is not accessible to all, and analysis remains in the hands of those with the technical know-how to access digital data and the analytical tools and skills to interpret it. Reflecting on the value and limitations of archiving and countermapping, therefore, it becomes clear that anti-colonial digital methods might work to put countermaps, along with the processes to create them, in the hands of the people who are implicated in these issues, whether community members, activists, legal experts, corporations, government representatives, or other researchers. Research may be shared, therefore, not only with the academic community but also with those implicated in the issue being studied – in this case, both pipeline resistors and those seeking to undo and remake settler colonial relations.

Conclusion: Reciprocity in Anti-Colonial Digital Methods

While Benjamin meaningfully draws our attention to the ways that zooming in and zooming out provide particular insight, reflections on anti-colonial digital methods are a reminder that even as we see, so we are being seen and constituted by other relations, human and more-than-human, in ways that call us as researchers to account. In reconsidering how archiving and countermapping digital data might denaturalize the colonial vision of digital methods and represent data for the purposes of anti-colonial transformation of relations, therefore, I return to Latour's conception of the social world as performative. As articulated in Chapter 3, issue mapping and digital methods are grounded in a Latourian understanding of the ways human and more-than-human agents co-constitute one another through social relations. While this new

materialist theory recognizes the multiple agencies involved in social issues, and encourages the researcher to "follow the actors" rather than prescribing in advance how to understand them, issue mapping and digital methods might better work towards anti-colonial justice by addressing researcher accountability and reciprocity in this process. The researcher, after all, is an actor not outside the digital data set but an actor implicated in multiple and complex ways with the data being analyzed.

More serious consideration of reciprocity grounded in Indigenous new materialisms may help to inform digital methods by providing new foundations based in relationality and reciprocity. Indigenous scholars have admonished western new materialism for only superficially recognizing the agency of more-than-human beings (Barker & Pickerill, 2020; Watts, 2013), resulting in the maintenance of human centrality and the appropriation of other agents for human purposes. So, for example, "although the dirt/soil has been granted entrance into the human web of action, it is still relegated to a mere unwitting player in the game of human understandings" (Watts, 2013, p. 30). By contrast, Indigenous new materialisms tend to emphasize the agency of all within a system of relations where

> all nature and all matter is culture. Culture is not an extrapolated abstraction, interpretation or ritualized representation observed in nature by outsiders – so-called "outsiders" are intra-actively part of nature. It is relationality in and of itself to all matter, all that is known, beyond knowing or unwilling to be known. (De Line, 2016, p. 5)

Conceptions of agency as relationality undermine modernist hierarchical and binary regimes naturalized in western thought that separate the knower from the known (Marker, 2018). Counter to the property-oriented and extractivist worldviews central to settler colonialism, for instance, the seascape ontologies shared among Coast Salish peoples such as the Tsleil-Waututh, Musqueam, and Squamish emphasize "the interconnected relations between humans and more-than-human worlds, as ocean citizens, [where] human experience [is connected] to the continuous movement of shifting tides and currents" (George & Wiebe, 2020, p. 505) of the unbounded ocean known as the Pacific. These relations among various agents cannot be manipulated by human hands but instead draw human actors into accountable relations, where human and other agents, including more-than-human life, tools, objects, and energies, are to be treated with respect and reciprocity, for their perpetuation and care (Cajete, 2016, para. 76). Such a conception focuses not on seeing, understanding, or knowing but on "doings," which, as stated

above, “necessitates valuing and acknowledging the roles, affordances, emergence and collaborations of animate and inanimate non-humans… Doings are practices and processes that continuously renew, are ongoing, moving, evolving new relations and generating new forms of the world” (Barker & Pickerill, 2020, p. 14).

Recognizing the ways that Indigenous new materialisms have been appropriated and abstracted as tools for western thought (Todd, 2016; Watts, 2013), my aim here is not to follow suit but rather open up the question of how issue mapping and digital methods might be transformed if founded upon Indigenous new materialisms instead of Latourian thinking. The findings in this chapter indicate the ways anti-colonial digital methods need to account for researcher relationality to the human and more-than-human actors involved, including images, data visualizations, Instagram users, hashtags, and algorithms that possess their own agency – agency that is not “magical” (Sundberg, 2014) but is concretely enacted both in Instagram and within the various digital methods processes, shaping relations around the Trans Mountain issue, as well as between diverse agents and the researcher. These agents displace the researcher as the knower with a god’s eye view and draw the researcher into ethical and accountable relations to the benefit of Indigenous communities, transforming the ways data is archived, visualized, analyzed, and presented for anti-colonial justice, and ensuring the tools of analysis are democratically shared. While the concrete examples provided in this chapter articulate a preliminary vision of anti-colonial digital methods, more profoundly shifting the foundations to Indigenous new materialisms may open possibilities for anti-colonial digital research that centres reciprocity rather than layering it in after the fact, reconfiguring relations from the outset among the researcher, data, platforms, algorithms, users, and research audiences.

Conclusion

Both prior to COVID-19 and as pandemic lockdowns sent people home from anti-pipeline demonstrations, overlapping networks of youth, Indigenous land protectors, and environmental activists have used Instagram to visually document and amplify information on Trans Mountain construction, policing, land degradation, and activism, teaching about pipeline issues through infographics and expressing solidarity through banners and re-shared posts. These articulations have been part of growing collections of issue public pedagogies on Instagram, which gather around central issue hashtags. Across the settler state of Canada, for example, we have recently seen resistant pedagogies hashtagged #FerryCreek documenting police violence on the territories of the Pacheedaht, Ditidaht, and Huu-ay-aht First Nations; calling out Premier John Horgan through @-mentions and imagery of occupiers on his office steps; and evoking collective rage at the razing of old-growth forests through the viral circulation of a photo of an old-growth tree being trucked down a highway to the mill. Instagram posts networked via #CancelCanadaDay have responded to the uncovering of mass graves at former Indian Residential School sites with orange profile photo banners, infographics about genocidal settler colonial policies, and images of hosts of demonstrators wearing orange in place of Canada's signature red and white as they proceeded through city streets towards government buildings on the nation's July 1st birthday. Ongoing resistance to the Coastal Gaslink pipeline connected through #WetsuwetenStrong promote direct actions against fracking in locations far from Unist'ot'en, critique the settler state via swipe-throughs about the death of reconciliation, and share updates from the Yintah where Wet'suwet'en persist in defending the land against pipeline development. In each case, platform cultures and economies intersect with the specific issues according to the power relations inherent to settler colonialism, raising questions about the extent to which these social media expressions contest or uphold existing norms.

In this context, the conception of "issue public pedagogy" introduced in this dissertation provides crucial insight into the educative force of social media in relation to settler colonialism, as pedagogies gather around central issue hashtags, connecting a body of imagery, text, and emojis that are also linked through follower lists, location tags, and other hashtags. Considering the multifaceted nature of Instagram as a platform, the results of this analysis, of course, do not tell us everything. Instagram affords ever-mutating modes of engagement, where recent shifts in

the interface reflect its move from a photo-sharing app to reel-based content creation and communication in keeping with Tik Tok (M. Clark, 2021), limiting the analysis presented here to only one segment of the platform. To explore the pedagogies of expiring stories, ever-more-mutable content, and increasingly robust video features, innovative and alternate methods are needed (Bainotti et al., 2021), particularly if we pursue questions about how Instagram issue public pedagogy interacts with user demographics and preferences, pandemic influences, ongoing data gathering and surveillance, opaque yet invasive algorithms, and the priorities of issue actors. So, following Savage (2010) that culture offers pedagogies "in a pluralized sense" (p. 108), Instagram warrants further exploration regarding how its various emergent affordances interact in ever-shifting public pedagogies.

While Instagram's public pedagogy therefore opens further questions for exploration, this dissertation focuses on the discrete issue public pedagogy of the Trans Mountain controversy, with an eye to the extent to which – and how – settler colonialism is taken up, undermined, and bypassed. While much public pedagogy research focuses on the hegemonic functioning of culture, a study of issue public pedagogy on Instagram reveals the complex intermingling of user and platform agency in a pedagogy that differentially interacts not only with settler colonialism but also platform cultures, economies, and tools. By tracing the functioning of Trans Mountain issue public pedagogy en masse, we are also able to map land protection and environmentalism via issue participation under a settler state, where it is infused with colonial threads yet also performs significant anti-colonial moves by engaging settler histories, representations, and policies – and indeed by bypassing settler colonialism altogether, exhibiting Indigenous ontologies and relations with the land. If the intersecting violences of extraction are to be addressed, it is imperative to learn from these public expressions towards anti-colonial environmental justice that recognizes how the ecological is not a realm separate from human life. Indeed, acknowledging the relationality among human and more-than-human life is necessary not only to addressing the violences of fossil fuel extraction but also of extractive digital research practices, where displacing the researcher as the primary knower is necessary to digital methods grounded in reciprocal relations among researcher and data. Learning from the public pedagogies on Instagram, an anti-colonial digital researcher can therefore archive, visualize, and interpret digital data in accountable ways that undermine colonial hierarchies, including those that situate knowledge with public pedagogues in colonial institutions such as the university. Instead, digital

researchers may work through a relational analysis with and for the diverse actors participating in anti-colonial pipeline public pedagogy towards alternative relations among lands and peoples.

Issue Public Pedagogy in (and in Relation to) Place

Considering the proliferation of issue networks, actions, aesthetics, and discourses on Instagram with profound potential for public issue learning – yet also undeniable restrictions due to the nature of the platform – it is a crucial time to examine the pedagogical functioning of social media platforms around current issues like the Trans Mountain. Under a dominant formation like settler colonialism, the participation, creativity, and networked capabilities of Instagram afford diverse expressions by multiple publics shaped by not only by issue discourses and but also by specific lands, affects, and aesthetics as users take up, contest, reinforce, and bypass settler colonialism in relation to discrete issues like the Trans Mountain. At the same time, Instagram complicates public pedagogy as the platform power dynamics enfold into settler colonialism, structuring data for capital gain and digital surveillance, and promoting specific platform cultures and representational regimes, which together enable and circumscribe engagement and the resultant public pedagogy. Matters are only complicated by matter: Instagram is also materially bound up with energy systems required for data storage, along with the mineral extraction necessary for cell phone technologies, in a public pedagogy that is inherently contradictory in relation to extraction and displacement of Indigenous peoples for resource development. Into this complex context, the concept of public pedagogy allows extension beyond a discursive analysis of Instagram to an examination of the affective flows, aesthetic interruptions, embodied practices, and emplaced expressions of the multiple, marginalized, and networked publics described in Chapter 3. It also enables us to recognize the impacts of platform and algorithms in pedagogies among "calculated publics" (Bruns & Burgess, 2015), where algorithmically promoted hashtags and content, canned selection of location identifiers, and botted accounts all contribute to public pedagogy.

Diverse use of hashtags within the larger, ever-shifting Trans Mountain issue ecology reveals a complex and multi-layered issue public pedagogy that reflects the potential for active and resistant – as well as reproductive – knowledge production within networked relations connected under settler colonialism. While hashtags map out the discursive space around the Trans Mountain according to diverse issue positioning, they can also promote action through networking and solidarity, holistically integrating relations, actions, personal experiences, and

resurgent practices with political components of the pipeline issue. As we saw through hashtags connecting personal experiences of gendered violence resulting from man camps to broader movements for Indigenous sovereignty, for instance, hashtags can powerfully index and aggregate both individual and localized issues in relation to broader structural issues. Hashtags also signify dialogically with imagery and emojis, taking on particular meanings according to networks of relations within and across the platform. Multiple hashtag functions exhibit not a singular, propagative cultural force (Giroux, 2000) but a complex and multi-layered public pedagogy within networked relations, having both resistant and reproductive effects.

Hashtags are only one element of Instagram expression, however, and significant political work is enacted through the aesthetic nature of the platform's public pedagogy through imagery and text, where resistant aesthetics take up, appropriate, and subvert both platform vernacular and colonial representational regimes in complex ways in order to challenge and even refuse the colonial regimes that perpetuate extractivism. Not all imagery is resistant, certainly; the pristine wilderness imagery associated with the location tag for British Columbia spectacularizes the landscape in keeping with both colonial representational regimes and Instagram's economy, which encourages the use of appealing imagery in order to promote engagement through sharing, commenting, and likes. By contrast, the quotidian updates by the Tiny House Warriors from the blockades at Blue River, which depict women on the land and share everyday shifts in the weather, take up Instagram's cultures of real-time updates and platform vernaculars (i.e. selfies) to express Indigenous resurgence. Through such aesthetic interruptions, anti-pipeline public pedagogy destabilizes the physical enclosure and exploitation of the land under colonialism by undermining what Rancière terms the "distribution of the sensible," or the visual enclosure of colonial representation, in ways that activate affect, enacting alternative visions and narratives.

Such creative and critical work is enacted by public pedagogues who are variously situated in relation to the Trans Mountain issue, as indicated through diverse afforded expressions such as selfies, location tags, hashtags indicating issue positioning or land acknowledgments, skin-colored emojis, and affective emojied expressions like hearts and shocked faces. The array of issue positions, pedagogical tools, and situated users perform a variety of relations with settler colonialism, some perpetuating colonial norms while others express various liberatory discourses, promote decolonial actions, and foster crucial solidarities.

Rather than a singular public pedagogue situated in a university, therefore, we see in the Trans Mountain issue public pedagogy the contributions of a multiplicity of diverse public pedagogues, which undermines the hierarchical divide between formal and non-formal educational spaces. At the same time, these pedagogues are indeed not discrete and autonomous actors but are instead inextricably bound up with the material, infrastructural, algorithmic, cultural, and corporate elements of Instagram. While they may act in self- and platform-reflexive ways, offering a layer of critical consciousness not only regarding the issue itself but also with what it means to participate with the issue online, these public pedagogues-as-users are mundanely and monstrously bound with the platform in both visible and undetectable ways. For those interested in public pedagogy on social media, this is a key reminder to be conscious that the pedagogical and the platform are subtly bound in a layered and complex agency.

Instagram is not simply a tool in Trans Mountain's public pedagogy, therefore, and this agency extends to the role of place. While the platform enables flexibility in location tagging across geographic scales, toponyms are largely limited to official place names and tags for businesses, in keeping with colonial and corporatized regimes. In disciplining selection of toponyms and maintaining authority over algorithmic promotion of particular place names, the platform limits decolonial possibilities in favor of the platform's data gathering capabilities. At the same time, subversive and anti-colonial expression circulates in relation to place, as affective and aesthetic publics gather around particular location tags, pedagogically restorying relations to particular locations through their posts. For instance, some posts link to specific places in order to tap into social imaginaries as part of their issue expression, as we saw with the leveraging of British Columbia's pristine wilderness identity as a tool against toxic fossil fuel developments. Other posts use location tags to evoke political entities such as the settler state of Canada, speaking back to colonial decision making. While these examples show the connective role of location in Instagram's public pedagogy, location tags also powerfully situate pedagogy in specific places, addressing the Trans Mountain issue in relation to daily experiences and local landscapes. In contrast with universalizing pedagogies that are replicated across vastly different contexts, place-based public pedagogy on Instagram indicates the nuanced interactions between land and issue expression in a way that is profoundly anti-colonial, countering assumptions of the land as a generic backdrop for learning. In some cases, Instagram's public pedagogy approaches Indigenous conceptions of land-based pedagogy, particularly as it engages land-

based epistemologies, emplaces Indigenous people's bodies on the land, and supports Indigenous repatriation and resurgence. While Instagram's colonial toponymic selection limits land-based connections, and the platform tends towards spectacularized representations of the land according to its commodity-orientation, land-based pedagogies appropriate the platform to envision the land in integral relations with human life.

By tracing the functioning of Trans Mountain issue public pedagogy, this research expands theorizations of public pedagogy in relation to networked media, and Instagram specifically, as well as in relation to settler colonialism. While existing theorizations of public pedagogy tend to focus on the hegemonic functioning of culture (Savage, 2010), Instagram's issue public pedagogy instead reveals how power is indeed networked, shifting, and unstable – it moves across a diversity of overlapping human and more-than-human actors, where mainstream colonial norms are unevenly reinforced, contested, subverted, and bypassed. To situate knowledge and the power of deconstruction with public pedagogues in formal educational institutions is to ignore the contributions of diverse, monstrous publics, where issue expression in the non-formal educational space of Instagram is indeed complex. Rather, attendance to social media public pedagogy holds potential to inform our understanding of discrete issues like the Trans Mountain – along with more sweeping issues of extraction, land-care, and decision-making under settler colonialism, as explored below. In fact, learning from the public pedagogy surrounding crucial issues holds potential to inform formal education, which might draw on knowledge and theory from hashtags, imagery, emojis, precise locations, and text to bear on issue learning in classrooms, particularly in places where education is overly reliant on hierarchically-developed or universalized curriculum developed by the very colonial authorities addressed by pipeline-resistors and broader anti-colonial movements. In addition, the complexities of Instagram's public pedagogy as bound up in platform affordances, cultures, and economies may motivate formal education towards greater digital literacy regarding social media's pedagogical possibilities and limitations, including how to ask critical questions about the structuring of affordances in relation to social media companies' corporate orientations and links with state surveillance and data tracking. At its most radical, and perhaps most ethical, education may also support the governing of existing platforms or the development of alternatives, preferentially favoring platforms and media systems that are not driven by corporate models (Couldry & Mejias, 2020) but instead by community aims, towards public education for

anti-colonial resistance, democracy, and solidarity. In these ways, deeper understanding of issue public pedagogy holds anti-colonial potential to inform issue understanding, along with the content, skills, and functioning of formal education according to public participation and expression.

Anti-pipeline Resistance in the Settler State Called Canada

Involving concrete disruption to Indigenous homelands and sovereign decision-making, and in keeping with longstanding settler colonial extractivist processes that commodify land and denigrate Indigenous peoples' ways of being for resource development, the Trans Mountain pipeline controversy provides a crucial case by which to explore anti-colonial public pedagogy in relation to an environmental and extractive issue in the settler state of Canada. Under settler colonialism, the land is severed from human relations and reconstrued as resource for the benefit of the nation state, as other ways of being on and with the land are sidelined. To support dispossession for settler accumulation, Indigenous decision-making is circumscribed from all angles, where environmental assessments delegitimize Indigenous knowledge and concerns, legal processes and RCMP enforcement favor state and industry, and media discourse and representation follow long-practiced colonial regimes that serve state interests, as outlined in Chapters 2 and 3. In this context, anti-pipeline resistance sees the interaction of decolonial movements with anti-pipeline issue orientations informed by settler colonialism, including mainstream environmentalism, local protectionism, and techno-scientific climate solutionism, which all reify colonial understandings of the land that favor settler futurity (Tuck & Gaztambide-Fernández, 2013). Indigenous scholars and activists have long critiqued mainstream environmentalism, including its current expression in a Green New Deal that, while supportive of just energy transition, circumvents the necessary work in undoing colonial relations (*The Red Deal: Indigenous Action to Save Our Earth*, 2021). In addition to critique, Indigenous scholars have also promoted Indigenous and anti-colonial visions for environmental and climate justice (Gilio-Whitaker, 2019; Whyte, 2016, 2017, 2018, 2019), and indeed disregarded and bypassed coloniality altogether through resurgent relations with the land that foreground relational ontologies (Corntassel, 2012; Corntassel & Hardbarger, 2019; L. B. Simpson, 2014, 2017; L. R. Simpson, 2004).

Complementing this ongoing work, a large-scale examination of the Trans Mountain issue public pedagogy contributes visions for Indigenous land protection and an anti-colonial

approach to environmental justice emerging from participant publics, as activists, scholars, land users, Indigenous leaders, and local inhabitants along the pipeline route all engage the status quo and enact alternatives via central issue hashtags like #stoptmx. By countermapping the Trans Mountain issue, we can see how some visions and enactments are profoundly decolonial and support the return of land and sovereignty to Indigenous peoples through reconfigured relations, while others indicate the persistence of coloniality even as well-meaning publics work towards healthy communities of human and more-than-human life in relation to specific waters and lands. Networked across various sites, anti-pipeline public pedagogy draws attention to the specific relations among lands and peoples that are dictated by the settler state named Canada yet transcend this colonial relation. While some resistance is networked across sites experiencing similar colonial violences, as by co-hashtagging #stoptmx and #wetsuweten, posts also apply land-based pedagogies that enact deep relations with specific lands and waters while opposing pipeline construction, digitally practicing Indigenous sovereignty and resurgence on home territories like Secwepemcúĺecw. At other times, issue public pedagogy directly critiques the settler state, calling out its inherent extractivism and white supremacy, both of which are interconnected with the treatment of the land. For instance, the state is questioned both through the content of posts – by documenting police violence, posting a selfie giving a finger to the maple leaf flag, or hashtagging #kkkanada – and by invoking the Government of Canada through location-tagging or via hashtags like #trudeau. In addition to directly critiquing the state, Trans Mountain public pedagogy also undermines colonial borders and invokes trans-national Indigenous solidarity by connecting to water protection at Standing Rock through the #NoDAPL hashtag. In this way, pedagogical tactics both address colonial governments and transcend colonial borders, critiquing and undoing the colonial structuring of the land towards anti-colonial environmental justice. Through the networked relations available on Instagram, public pedagogy is able to perform relations alternative to the colonial order, expressing interconnections with land, solidarities across sites similarly structured by the settler state, and ongoing relations with peoples and lands that transcend colonial borders. While such performances are only evident piecemeal by following individual Instagram users, the archiving and visualization enabled by anti-colonial digital methods provides a vision of land-protection and anti-colonial environmentalism put forward by anti-pipeline public pedagogy.

Countermapping the Trans Mountain issue public pedagogy also reveals the ways that ecological issues are interconnected with social, cultural, and political elements of extraction. While some anti-pipeline public pedagogy addresses diverse impacts of the pipeline – including, for instance, its contributions to the crisis of missing and murdered Indigenous women, its destruction of salmon habitats, orca populations, and blueberry harvesting grounds, and its adverse effects on the food sovereignty of Tsleil-Waututh peoples – impacts are not the only concern. Rather, Trans Mountain issue public pedagogy also addresses the pipeline's interrelations within broader histories and current political processes within a settler state, including, for example, the structuring of Indigenous decision-making authority by the *Indian Act*, as well as the ongoing use of RCMP to support industrial development and enforce Indigenous dispossession. In the pipeline issue public pedagogy, such impacts and ongoing processes are inseparable from problematic representational regimes, as posts use aesthetics and content to question the racist representation of Indigenous peoples and the land's construction as a resource and recreation commodity, which apply colonial representational regimes to justify extraction and perpetuate related injustices. Trans Mountain issue public pedagogy thus reveals not only the necessity of addressing the intersecting ecological, social, cultural, and political elements of extraction, but also that analysis of pipeline impact is not enough to enact anti-colonial environmental justice. Rather, anti-pipeline resistance can work to dismantle and reconfigure relations under settler colonialism towards sovereign decision-making for Indigenous nations and reciprocal relations with the land.

With an eye towards such reconfigured relations, it is key to also attend to the ways that Trans Mountain issue public pedagogy also persistently performs significant colonial elements. In linking environmental protectionism to the social imaginary of British Columbia as a wilderness landscape, for instance, anti-pipeline activists leverage and indeed reinforce colonial ownership over the land, favor elite commodification of the land for recreation and escape, and problematically tap into a colonial entity, namely the province named British Columbia, as a site of solidarity. Even at Burnaby Mountain, where resistance is directed through the strong Indigenous leadership of the Tsleil-Waututh watchhouse, posts exhibit some evidence of virtue signaling and settler appropriation of Indigenous practices for personal enlightenment. Such examples not only reveal how discrete issues bring diverse publics together but also provide insight into the colonial threads and residues inherent to anti-pipeline movements and climate

action, including how these are shaped in relation to the policies, cultures, imaginaries, and visions particular to the Canadian settler nation-state. The pipeline is not a resource infrastructure with benefits to a homogenized "Canadian" human population and economy, with isolated impacts on salmon habitats and endangered orca whale populations, on lands and waters preserved as wilderness spaces outside human communities. Rather, the pipeline has interconnected effects on interrelated waters and lands, human and more-than-human communities, multiple economies and food systems, all differentially shaped by colonial categories, hierarchies, and policies that serve settler state interests and industries. While the Trans Mountain issue public pedagogy indeed reveals significant convergence of anti-pipeline activism towards Land Back and decolonialization, the persistence of mainstream environmentalism grounded in colonial visions of the land points to the necessary, ongoing, and difficult work of reconfiguring relations in the land currently known as Canada.

Archiving, tracing, and visualizing the contours of Trans Mountain pipeline public pedagogy, therefore, enables the contribution of public voice to a growing body of research and activist work towards anti-colonial environmental and climate justice (B. Brown & Spiegel, 2019; Gilio-Whitaker, 2019; Ilyniak, 2014; Temper, 2019; *The Red Deal: Indigenous Action to Save Our Earth*, 2021; Whyte, 2016, 2018, 2019). By exploring both adherence and resistance to colonial commodification of the land and Indigenous dispossession, along with Indigenous resurgent disregard of such colonial regimes, we can see the spaces of possibility – along with the persistent restrictions – in working towards altered relations, including how these are geographically situated and overlap with other issues and concerns. Considering the pervasiveness of colonial relations among settler-situated Instagram posts, the findings from this countermapping hold significance not only for Indigenous land and water protectors but also for settler anti-pipeline activists striving towards anti-colonial environmental justice through public education, including over social media. Those involved in anti-pipeline or other land-based movements might directly address persistent colonial thinking through public education, finding new ways to restory or re-present locations and issues that counter colonialism, for instance by undermining the spectacularization of British Columbia, the exceptionalism of framing Canadian oil as "ethical," and the differential experiences of arrests by settler and Indigenous peoples according to white supremacist logics. By extending the view beyond the impacts of pipeline infrastructures to encompass broader relations among settler colonialism, pipeline resistors may

also concretely contribute to decolonization and Land Back movements by questioning the narrow framing of environmental impact assessments, supporting sovereign decision-making surrounding pipeline infrastructures, and continuing to link pipelines with related issues shaped by colonial processes, whether these be the felling of trees at Ferry Creek or the inadequate state response to mass graves found at Indian Residential School sites. Finally, considering the dedication of education systems across Canada to right relations with Indigenous peoples and legitimize Indigenous knowledge in education spaces, Trans Mountain pipeline public pedagogy holds potential to inform anti-colonial environmental education in formal settings. In dialogue with curricula and educational priorities, the findings from this research may inform specific ways formal education may support meaningful ways forward through the land-based crises of our time by moving beyond a colonially-informed, conservation-oriented narrative that relies on an understanding of the land as "resources." Rather, formal education might work towards deeper dialogue with the diverse knowledge systems and land-care practices of Indigenous peoples, while also supporting learning about colonial decision-making and land use, so that young people are better prepared to together address pressing issues like climate change and the toxicity of industrial development from outside a settler colonial standpoint towards healthier future relations.

Anti-Colonial Digital Methods

An anti-colonial examination of Instagram's public pedagogy and anti-pipeline resistance in a settler colonial state of Canada would not be possible without the anti-colonial digital methods that emerge throughout this research project. Where digital data is treated as neutral, seemingly objective and omniscient visualizations shroud automatic and algorithmic operations, the structuring of social media data by corporatized platforms, and the researcher interpretations of data (Leurs & Shepherd, 2017; Morrow et al., 2015; Shepherd, 2015). Even where critical digital methods (Fuchs, 2017, 2019) have drawn attention to the power imbalances and gaps inherent to digital methods, these have stopped short of engaging the coloniality of relations among data, platforms, algorithms, researchers, and publics, including what it might look like for digital methods to work against colonialism in digital research. Through critical reflection on this research project's protocol, therefore, this project proposes anti-colonial digital methods that position the researcher in relation to the data and undermine the colonial gaze on digital data,

archiving and visualizing data for the purposes of justice rather than for colonial categorization or corporate gain.

By recognizing the agency of the bodies, lands, technologies, stories, and other more-than-human entities data represents, researchers can engage in a dialogical and reciprocal analysis, visualization, and dissemination that is accountable to these other actors. Such work decenters the researcher from a position of objective superiority and instead implicates the researcher, necessitating a response – whether that be acknowledging the algorithms participating in the analysis, carrying forward the claims to justice put forward by actors reflected in the data, carefully representing and disseminating data to protect actors who are marginalized or oppressed under settler colonialism, or putting the tools, results, and interpretations of the analysis in the hands of those most impacted by the issue under study. Such is why the conclusion to this dissertation focuses not only on the functioning of Instagram's public pedagogy, but also explicitly on the nature anti-pipeline resistance in the settler state of Canada, which certainly reflects some anti-colonial threads (Gobby & Gareau, 2018; Spiegel, 2021b) but still has further to go to leave behind colonial modernity and its objectifying view of the land as outside human relations. The visions, resistances, and knowledges put forward through Trans Mountain public pedagogy, when archived, countermapped, and shared, have potential to contribute to critiques of both extractivism and environmentalism, with potentially transformative effects on decision-making within a colonial state. In undermining the colonial gaze of digital methods, therefore, this research also redirects the settler gaze back on colonial environmentalism and decision-making about the land, revealing its mechanisms and drawing attention to anti-colonial alternatives, as expressed on Instagram.

It is thus both the functioning of anti-colonial digital methods and its results that work against and past the colonial gaze. By archiving and visualizing social media data not for corporate or surveillant purposes but to see, watch, witness, and respond to what is put forward on Instagram, countermapping practices support anti-colonial aims in the messy public pedagogical space where the platform and Trans Mountain issue interact. Despite visual metaphors of zooming and viewing that dominate these practices, anti-colonial digital methods are indeed "doings" (Barker & Pickerill, 2020), as the researcher participates with the data, accountably attending to how data is displayed, where it is shared, and for what purposes.

These ethical relations among researcher and digital data raise questions as to whether Latour (2005) provides sufficient foundations for anti-colonial digital methods, as he maintains a largely neutral researcher positioning. While he importantly legitimizes the actors' ways of seeing and doing, and admonishes against "pretending that actors have only a language while the analyst possesses the *meta*-language in which the first is 'embedded'" (Latour, 2005, p. 49), Latour stops short of drawing the researcher into relations with the actors under study. As a result, digital methods may not sufficiently consider the ways that data might be accountable to the actors, working with them against colonial oppressions and carrying forward their visions for decolonization. It is therefore not an extension of existing feminist, anti-racist, and critical digital research that is needed, but new foundations for digital methods that capture the reciprocity necessary to undermining colonial divisions. While the current project puts forward some ways for digital methods to become more anti-colonial through accountable considerations for data analysis, visualization, and dissemination, new foundations may be found in Indigenous new materialisms, which promote the respect and reciprocity necessary for mutual perpetuation and care. Offering a crucial undermining of modernist hierarchical and binary regimes naturalized in western thought, Indigenous new materialisms both recognize the agency of more-than-human actors and draw human actors into accountable relations with these agents, including more-than-human life, tools, objects, and energies, which are to be treated with reciprocity. While further research might more deeply explore these foundations and resultant possibilities, the current project opens and offers the question to others interested in the anti-colonial possibilities of working with digital data.

Conclusion

While public life is profoundly disrupted by the COVID-19 pandemic shutdowns, the Trans Mountain pipeline has proceeded with construction unabated. Storage areas for vast stretches of pipe have emerged along the pipeline route, accompanied by the man camps and heavy machinery necessary to pipeline development. Meanwhile, #stoptmx issue public pedagogy has persisted, as posts networked on Instagram continue to provide updates from the Tiny House Warriors blockading the route in Secwepemc territory. Posts have drawn attention to occupiers in sky pods among forests along the Brunette River in the territories of the hən̓q̓əmin̓əm̓ and Sḵwxwú7mesh speaking people, promoted divestment by pipeline insurers,

connected the pipeline to resistances at Ferry Creek and Wet'suwet'en, and articulated the connections between the pipeline and deepening climate crisis.

I studied – and scrolled – this Trans Mountain public pedagogy over Instagram from my pandemic lock-down, which was intensified by sealing my windows against the toxic smoke billowing across the Okanagan, as forest fires proliferating due to fossil fuel-driven climate change destroyed Lytton First Nation, a Nlaka'pamux community the government neglected to support with timely fire response (*"Abysmal Attempt,"* 2021). Under the pandemic, my #stoptmx scrolling at times turned to doom-scrolling, as algorithms, click-bait, and re-sharing among networks kept my thumb flipping through pipeline updates and other news items. The precise nature of these lockdowns, forest fires, and Instagram doom-scrolls are not disconnected from the issue public pedagogy of the Trans Mountain, but are in fact deeply linked through the very same colonial visions, articulations, and decisions about land, peoples, and technologies that have led to the Trans Mountain development as it stands and shaped its resistance through online expression. In the context of ongoing colonial doings and a need for anti-colonial education and action in the face of rising social media use, resource conflicts, and climate crises, a close examination of Instagram's pipeline public pedagogy provides an exploration of the continual makings, refusals, and disassemblings of settler colonialism in various digital and lived spaces, against a "colonial fatalism" that "posits a structural inevitability to settler colonial relations" (Snelgrove et al., 2014, p. 8). Rather, by tracing the adherence and resistance to settler colonialism through Instagram's public pedagogy, it is possible to learn from both its restrictions and possibilities how we might connectively remake relations.

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