REIMAGINING POLITICAL ADVOCACY IN THE AGE OF SOCIAL MEDIA: INSIGHTS FROM THE GRASSY MOUNTAIN MINE PROJECT

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Abstract

The emergence of social media platforms as a major communication technology has resulted in the reimagining of political advocacy and mobilization, as well as our position in relation to these tools. Through a case study of the recently terminated Grassy Mountain Mine project in Alberta, this work explores the tensions and complexities of environmental political participation in online and physical space, focusing on the use of Facebook as a tool for expressing political interests and enabling collective action. A mixed methods approach was taken to investigate this objective, including a scoping social media analysis of 484 posts made on public Facebook groups related to coal mining and in-depth participant interviews. Within this case study, motivations for political engagement via social media often stem from deep emotional ties to the physical space at the center of the movement. Additionally, this study provides evidence that the digital infrastructure of Facebook plays a role in how political participation is enacted online. This thesis contributes to existing knowledge on how humans navigate political participation and conceptualize space. It can also serve as a useful document for governing bodies seeking to effectively utilize online platforms for public engagement, such as consultations.

Keywords: *collective action, social movements, social media, online platforms, physical space, coal mining*

General Summary

Social media platforms have changed how we voice our political interests and come together with the people around us to support these efforts. This research focuses on how Facebook was used as a tool for people to advocate for their stance on the (now terminated) Grassy Mountain Mine project in Alberta. Doing this will help us understand the complexities of environmental political participation in both online and physical spaces. Both Facebook posts and interviews with the people who posted are used to explore these ideas. This research finds that people are often motivated to engage politically on social media because of strong emotional connections to the physical space and also shows that the design of Facebook influences how people come together to talk about their political beliefs. This thesis adds to our understanding of how individuals navigate political engagement and perceive spaces and may be helpful for government bodies using online platforms to reach citizens.

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Acronyms

AACP- Around and About Crowsnest Pass

AB- Alberta

AER- Alberta Energy Regulator

API- application programming interface

BLM- Black Lives Matter

BC- British Columbia

CAPP- Canadian Association of Petroleum Producers

CBC- Canadian Broadcasting Corporation

CEAA- Canadian Environmental Assessment Act

CPAWS- Canadian Parks and Wilderness Society

CPGT- Crowsnest Pass. Ghost town

CPR- Canadian Pacific Railway

CPU- Crowsnest Pass- Uncensored

EIA- Environmental Impact Assessment

EPEA- Environmental Protection and Enhancement Act

GDP- gross domestic product

GHG- Greenhouse Gas

GIF- Graphics Interchange Format

IAA- Impact Assessment Act

LLG- Livingstone Landowners Group

MLA- Member of the Legislative Assembly

NDP- Alberta New Democratic Party

PARH- Protect Alberta's Rockies and Headwaters

PC- Progressive Conservative Party

REDA- Responsible Energy Development Act

SMO- social movement organization

SARA- Species at Risk Act

UCP- United Conservative Party

Chapter 1: Introduction

Over the course of the past two decades, we have been living through a sociotechnical transformation of the space around us (Dijck & Poell, 2015). From talking to friends to working a job to participating in politics, the ubiquity of human interactions with the world through technology can make it easy to forget the extent to which our lifestyles are not only intertwined with but experienced through the online world. Many of these cultural shifts can be attributed to increased connectivity due to widespread internet access, the convenience of personal electronic devices, the availability of digital communication tools, and recently, a push further into the online world in response to the Covid-19 pandemic (Milan & Velden, 2016; Tufekci, 2018; Rader et al., 2020; Ritchie, 2022). As part of a transformation that blurs the lines between the physical and the virtual, advocating for political interests and mobilizing networks looks different than ever before. In parallel, there has also been increasing attention to the environmental and social impacts of human development, with global issues such as climate change at the forefront of conversation within communities, governments, academia, and industry (Arya & Henn, 2021; Oláh et al., 2020; Kuai et al., 2023).

At the center of this research are tensions around how environmental political participation within physical space is conceptualized and enacted through the online sphere. Through a case study of the terminated Grassy Mountain Mine in southwest Alberta and the voices that shaped this decision, this thesis explores political advocacy and the complexities of building meaning between tangible and intangible realities in a period when our relationships with the spaces we occupy was different than ever before. With social media platforms acting as an organizational agent to most of today's social movements in some capacity, gaining a full picture of these tensions also requires attention to how digital communication platforms themselves are capable of influencing activist action and power dynamics of this relationship between human-technology interactions (van Dijck

& Poell, 2015). The use of Facebook to organize and express political interests in the case of the Grassy Mountain mine allows us to take a closer look at the role of social media platforms as tools for political participation and how digital infrastructure shapes the ways individuals navigate and collect within the greater activist landscape. As such, this project offers valuable insight on the intersection of the environment as a political space and the online sphere to advocate for political interests.

1.1 Theoretical Background

The study of social movements has a long history, but the widespread access to the internet in the mid-2000s marked a new era of connectivity and social movement theory. The Arab Spring in 2011 paved the way for a shift towards social movements utilizing large-scale digital media and online platforms, giving rise to the concept of "connective action" (Bennett & Segerberg, 2012; Tufekci, 2018). Bennett and Segerberg's (2012) framework of connective action emphasizes personalized communication, individualized action frames, and the role of digital networks in mobilizing collective action. It highlights the decentralization of organizing agents and the formation of weak tie networks. However, questions have been raised about the political nature of online spaces and the impact of social media as a commercial entity on collective action (Milan, 2015; Milan & Velden, 2016).

Understanding the influence of social media on activist action is valuable to this conversation, as these platforms often serve as organizational agents for social movements. While they offer benefits such as rapid content turnover, personalized narratives, and weak tie networks that facilitate online collective action, they also contribute to the short-lived nature of online movements, echo chambers, and decreased political deliberation (Vitak et al., 2010; Greijdanus et al., 2020). Social media entities have biased interests that shape user experience, but online social movements are not

solely a product of their setting (Milan, 2015). Research suggests generally positive relationships between online and offline activism at the individual level, with the context of participation playing a significant role (Halpern et al, 2017). Facebook, in particular, has been associated with higher collective efficacy and a greater impact on offline political participation compared to other platforms like Twitter (Halpern et al., 2017).

One concept that can guide the interpretation of interactions across online and physical space is the notion of thirdspace, as proposed by Soja (1998). Thirdspace challenges existing binaries and recognizes that the value assigned to a space, whether online or physical, is dynamic and continuously enacted through individuals' experiences[1]. Applied to the online sphere, thirdspace finds parallels in the dynamics of social media, enabling connectivity and meaning making while transcending traditional boundaries (Milan, 2015). However, it is important to acknowledge that the online space, despite its transformation, is owned, facilitated, and constructed by profit-driven corporations (Heyman & Pierson, 2015). Milan's (2015) concept of "cloud networking" further emphasizes the sociotechnical nature of digital collective action, allowing users to renegotiate boundaries, form personalized narratives, identities, and networks.

1.2 Case Description and Context

The Grassy Mountain Mine project was a proposed metallurgical coal mining project that, after six months of scrutiny by both the federal and provincial governments, was terminated in August of 2021. Grassy Mountain itself is situated within the Rocky Mountains of south-west

[1] The hybridity of the online and physical world through thirdspace is one way of understanding the complex scaffolding of human interaction with and within space. Other frameworks, such as place attachment theory applied to landscape, offer valuable insight into this topic through the lens of human psychology (Proshansky, 1983; Rajala et al., 2020). Though acknowledged within this thesis, a full exploration of landscape attachment and identity across physical and digital space is left for future work.

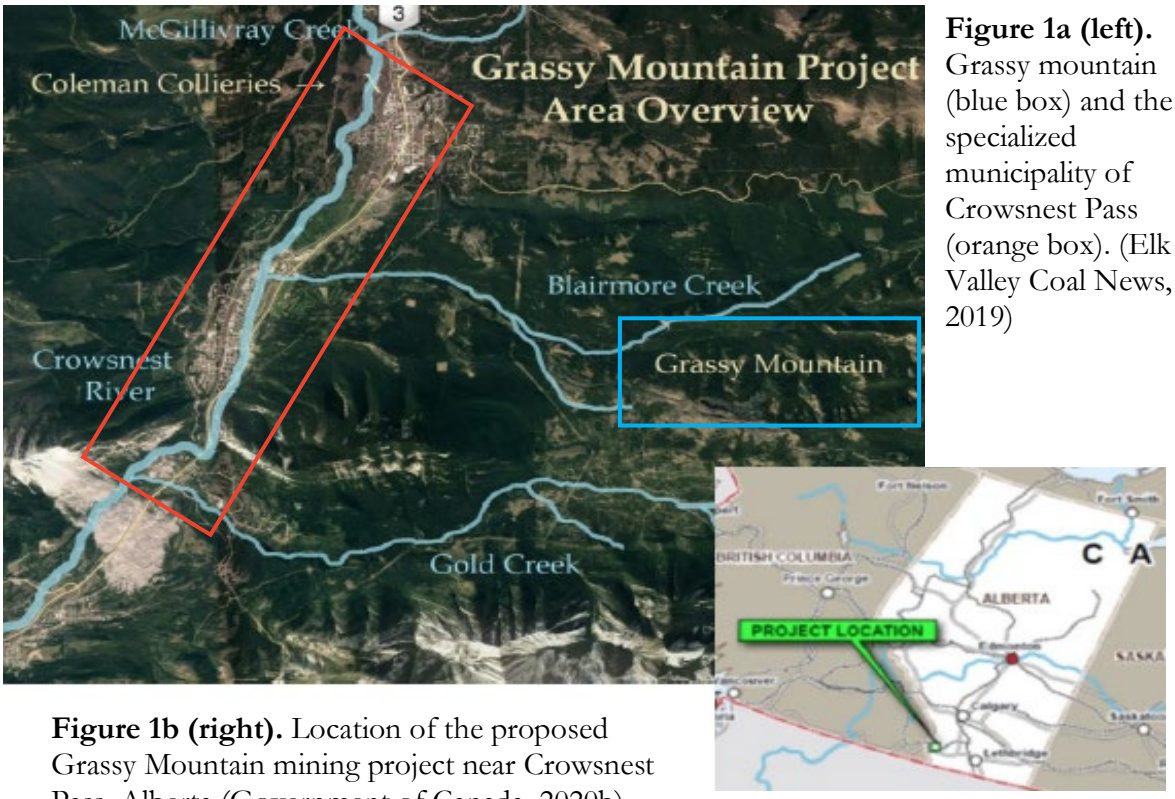

Figure 1a (left). Grassy mountain (blue box) and the specialized municipality of Crowsnest Pass (orange box). (Elk Valley Coal News, 2019)

Figure 1b (right). Location of the proposed Grassy Mountain mining project near Crowsnest Pass, Alberta (Government of Canada, 2020b)

Alberta and is adjacent to the specialized municipality of Crowsnest Pass, AB, whose 5,642 residents are largely employed in mining or related sector (Municipality of Crowsnest Pass, 2019; Government of Alberta, 2020a). The broader geographical region in which Grassy Mountain is referred to as the Eastern Slopes and is home to the headwaters of the South Saskatchewan River, which serves as a primary water source for over 3 million people ad supporting variety of wildlife (Figure 1).

Though the Grassy Mountain Mine approval process began in December 2015, the project did not gain significant media attention until June 2020 (during major Covid-19 restrictions), when the 1976 Coal Policy was repealed without any public consultation (Government of Alberta, 2022a). This resulted in decreased environmental protection for the Eastern Slopes and began the public outcry against the Grassy Mountain Coal Mine. By the end of 2020 the Government of Canada had received pushback against the approval of the mine during online consultations and established a review panel to further examine the impacts of the mine. On the side of the public, a grassroots

movement called "Protect Alberta's Rockies and Headwaters" emerged as a Facebook group, advocating against the Grassy Mountain Mine due to concerns of environmental damage. The movement gained rapid support, amassing over 37,000 followers within a few months. However, there was also an opposing, pro-mine group called "Crowsnest pass. Ghost town." established shortly after, as well as various conversations in other groups not specific to the issue of coal mining. Ultimately, the project was denied by the Alberta Energy Regulator in June 2021 and officially shut down by the Government of Canada in August 2021 (2021c).

As background to this case study, it is important to note that these debates and policy decisions took place between December 2020 and August 2021, meaning that this research is set within a greater context of Covid-19. The pandemic has caused a significant shift in how we navigate the world, with people increasingly relying on digital spaces for various aspects of their daily lives, including social interaction and information consumption (Brückmann, 2022). Social media platforms have played a dual role during the Covid-19 pandemic, acting as both a safe alternative to pre-pandemic activities and a space for protest and contention (Arya & Henn, 2021). Simultaneously, individuals' interactions with physical spaces changed due to safety concerns and public health restrictions (Xu et al., 2021). This has led to restrictions on the use of public and common spaces and heightened surveillance, creating a novel experience for many individuals while exacerbating existing inequalities in with marginalized communities facing greater challenges in protecting their well-being and safety (Bhui, 2021; Stahl, 2021).

1.3 Research Approach

Through an analysis of online content regarding the Grassy Mountain Mine project and participant interviews, this thesis examines how social media as an advocacy tool has shaped the

ways in which individuals advocate for their environmental and political interests in both the online sphere and in physical space. I explore this topic through the following questions:

1. How is political activism conceptualized in the online-to-real world continuum in the Grassy Mountains Mine debate?
2. In what ways do individual actors within the Grassy Mountains Mine debate use social media tools to communicate their interests?
3. How does digital infrastructure transform capacity building and communication within social movements?

To address the research questions, a thematic analysis of social media content (both posts and comments) regarding the proposed Grassy Mountain Mines resource extraction project in Crowsnest Pass was conducted. To supplement the social media analysis findings, select Facebook group participants were interviewed to gain a deeper understanding of the political climate and provide further context to themes which emerged from the social media analysis. Data collection and analysis focused primarily on the content and discourse within public Facebook groups regarding proposed resource extraction projects in the Crowsnest Pass region from March 17, 2020 (provincial state of emergency first declared) to August 6, 2021 (Grassy Mountain Mines project suspended). Specifically, the groups "Protect Alberta's Rockies and Headwaters", "Crownsest pass. Ghost town", "Around and About Crowsnest Pass", and "Crowsnest Pass- Uncensored" were examined, as they were either dedicated primarily towards expressing interests regarding resource extraction projects specific to the Crowsnest Pass region or are community groups where local issues are discussed.

1.4 Justification, Methodology, and Methods

Sitting at the nexus of digitally-mediated political participation in both physical and online settings, the rich political discourse that occurred within the online sphere regarding the Grassy Mountain Mine, the diversity of actors taking a political stance on the project, and the final policy decision of behalf of the Government of Canada makes this a valuable case study for exploring how individuals mobilize to advocate for their environmental interests in the online sphere. In addition, the characteristics of the social media platforms that enable these communications are rooted in proprietary algorithms and generally lack both transparency and predictability, which adds further complexity to the topic. This research draws connections between a variety of existing theory through an analysis of online discourse regarding the Grassy Mountain Mine project and aims to fill existing gaps in research on environmental social media activism in an increasingly technological age. Beyond this case study, the insights gained through this work also hold relevance when examining the ongoing integration of emerging technologies with our lifestyles and resulting shift in societal values. With a current spotlight on the impacts and relevance of general-purpose technology, such as machine-learning systems, questions around the intersections between human and machine systems are growing increasingly relevant from both a policy and academic standpoint (Brescia, 2020).

Though the main component of this project is a social media analysis, supplementary semi-structured interviews are also conducted to support findings from the social media analysis. Conversations regarding the mining industry are a controversial topic and more specific prompts during a semi-structured interview are likely to give greater depth to the findings than just a stand-alone analysis of social media. Additionally, research by Elder (2020) shows that online comments and responses, especially on public groups, are likely to focus on attacks of character when viewpoints are questioned, which often shuts down conversations on online platforms. As such, the

aim of interviews with individuals active in the groups is to have a more nuanced conversation and clarify any points that may be unclear in the social media analysis.

1.5 Thesis Organization

This thesis is organized into the following six chapters to examine how environmental advocacy is enacted through the use of social media as a communication tool.

Chapter 1 provides a brief introduction of the theoretical foundation of digital media activism and the purpose of this thesis. It consists of a background section, a case description of the Grassy Mountain mining project, the purpose statement, research questions, project justification and methodology, a brief methods overview, and an outline of this thesis work.

Chapter 2 provides a review of current literature relating to digital social movements and associated frameworks. It examines existing work regarding political participation online, the use of social media during, and intersection of these two topics.

Chapter 3 describes the methodology and methods used to meet the research objectives. This includes a justification of any frameworks used, a detailed description of data collection methods used for the social media analysis, the approaches taken to the interviews, and an outline of the data analysis process.

Chapter 4 is the first analytic chapters discussing the results of this research. This Chapter focuses on presenting and discussing findings from the social media analysis, applying a more quantitative approach to the research objectives.

Chapter 5, the second analytic Chapter of this thesis, takes a deep dive into the personal experiences of four individuals advocating their political interests regarding the Grassy Mountain

mine, using qualitative analysis. Interview findings are presented and provide a deeper understanding of individual experiences, as well as the nuances behind key themes that from the social media analysis.

Chapter 6 provides a summary of the work completed and discusses the overall findings in relation to existing literature. As the conclusion of this work, Chapter 6 presents an exploration of the value of this research, key take-away messages, the limitations of this research approach, and opportunities for future work.

Chapter 2: Literature Review

How we think about, describe, and execute social movements as a collective has changed immensely since it was first formally theorized, largely due to the wide spread of the internet and increased use of digital media (Tufekci, 2018). Though the current frameworks being used to study the nature of social movements and mass online communication are build upon existing schools of thought within political sociology and communication studies[2], these ideas are rooted in concepts spanning numerous other disciplines including philosophy, industrial relations, psychology, and gender studies.

This chapter discusses literature containing existing frameworks, approaches, theories, and examples used to better understand the forces that shape how both individuals and networks come together to achieve a shared goal, especially in during times of uncertainty. The chapter is divided across four distinct sections. Section 2.1.0 takes a deep dive into exactly what collective action entails it and how this has evolved throughout the past century. Section 2.2.0 discusses the construction of the online realm and how technology shapes both collective and individual behaviour on social media. Section 2.3.0 gathers concepts from the previous two sections and expands on them under the context of the Covid-19 pandemic, specifically how the use of space and social movements have changed since the onset of restrictions in March 2020. Finally, Section 2.4.0 presents gaps within the literature examined and situates my research within current perspectives and existing theory on social movements in a digital age.

[2] Such as Bennett and Segerberg's connective action (2012) and Milan's cloud networking (2016).

2.1 Collective Action

2.1.1 Definitions

To frame the discussion, it is necessary to clarify some of the language being used in current literature. With terms such as collective behaviour, collective action, protests, mass movements, social networks, and social movements in use, it can be difficult to understand the differences and nuances around each definition. Clarifying the meaning of these terms allows us to understand, describe, and apply concepts around online political action with greater precision, especially since much of this language is used interchangeably in literature. This section opens with an overview of the terminology and tools commonly used to understand collective action. The construction and evolution of these frameworks is then explored through two sections- collective action prior to the use of the internet and collective action after the internet became widely available.

Collective behaviour (sometimes used interchangeably with collective action) is the umbrella term used to refer to any group behaviour which is done voluntarily and is not regulated through institutional means. Little and McGivern (2016) break this down into four subcategories including (1) crowds, (2) the public, (3) masses, and (4) social movements. Crowds are defined simply as a large number of people in close proximity to each other- this can include anything from a busy bus to a wedding to a protest. Protests or riots fall under this category and are described as acting crowds, where individuals gather with shared intentions or goals. Contrary to crowds, both the public and masses refer to a dispersed group of people who remain anonymous to each other. However, members of the public are united through a shared idea on a specific issue, whereas members of masses are united in a common interest. For example, libertarians would constitute a public and fans of the same musician would constitute a mass. Little and McGivern (2016) note that

a defining characteristic of masses is the inability of individuals within the mass to act in an organized way to achieve a shared goal.

Social movements (also referred to as mass movements) also fall under the category of collective behaviour and can broadly be defined as "purposeful, organized groups striving to work towards a common social goal" (Little & McGivern, 2016). This definition of a social movement is deeply contested, with debates on how to best define the phenomenon. McAdam (1999) defines social movements as "rational attempts by excluded groups to mobilize sufficient political leverage to advance collective interests through noninstitutionalized means" (pg. 36), while Tilly and Tarrow (2015) describe them as a "sustained campaign of claim making, using repeated performances that advertise the claim, based on organizations, networks, traditions, and solidarities that sustain these activities" (pg. 11) with the government involved as a claim-maker or a target of claims. It is worth noting that in reality, none of these terms are perfect, as social movements are a complex concept that can hardly be defined in one sentence (Kolers, 2016). For example, the shortcomings of these terms are evident when attempting to describe collective action within the context of the internet. The difference between a protest and a social movement becomes increasingly ambiguous when describing individuals coming together in virtual spaces, such as the #BlackoutTuesday movement spanning social media networks on June 2, 2020 (Griffin, 2020). From here on, social movements are used as an overarching term for any collective efforts towards a shared goal whereas protests are used to describe specific and intentional action within a social movement.

Frame theory (also known as framing or collective action frames) is a helpful tool for understanding organizational motives behind collective action. First applied to mass movements by Snow and Benford in 1992, a frame is an "an interpretative schemata that signifies and condenses the "world out there" by selectively punctuating and encoding objects, situations, events,

experiences, and sequences of action in one's present or past environment' (Snow & Benford, 2000, pg. 137). Collective action frames offer a structure to make sense of various individual, group, and organizational interests, as well as the relationships between them. On an individual level, this structure plays a key part in changing the perception of an issue as one that is beyond control of the individual to a grievance which can be changed (McAdam, 1999). On an organizational or collective level, framing is vital to the direction a social movement takes. Organizing bodies frame issues in a way which is most beneficial to their overarching goals and adopt strategies for action a based on these guiding frameworks.

2.1.2 Theoretical Roots of Social Movement Theory

The action of individuals coming together to advocate for a shared interest was initially described in the late 19th and early 20th century in the context of riots. Written within the backdrop of western philosophy's postulations on rational beings and free will, early collective behaviour scholars observing rioting individuals concluded that even though each individual is a rational being on their own, when these individuals form a collective, they get swept up in the whims of the crowd and become irrational actors (Blumer 1969; Le Bon 1895). These early theories of collective behaviour were heavily critiqued on the assumption of individuals as irrational actors and have been replaced by the more contemporary understanding that individuals remain rational actors, whether or not they are part of a collective movement (Olson, 1965; Gamson, 1989). This body of literature has since evolved to better account for the multitude of factors that influence and shape what collective action looks like. Theoretical contributions to this topic can be understood through four key frameworks which shaped (and continue to shape) perspectives on social movements including rational action theory, resource mobilization, political process theory (also referred to as political opportunity theory), and cultural cognitive theory (Millward & Takhar, 2019), each of which is examined below.

Some of the first bodies of works that challenged earlier schools of thought are based in rational action theory, including *The Logic of Collective Action* by Mancur Olson (Olson, 1965; Coleman, 1973). *The Logic of Collective Action* differed from previous theory as it emphasized that the primary role of collective action is to further the common interests of groups of individuals, meaning that individuals become part of the collective due to their own rational decision making. Olsen (1965) explores the difficulty in creating effective collective movements due to the incentive for individuals to free ride (the collective action dilemma), where they can reap the rewards of the action without necessarily having to contribute to the cause. Early rational action works were written primarily through observations of economic-labour movements, especially in post-industrialization contexts in which organized labour organizations were just emerging.

Resource mobilization theory as we know it works upon the idea of rational actors but describes the success of mobilization efforts on the resources (money and labour) a movement possesses and asserts that collective movements cannot occur unless sufficient resources are available (McCarthy & Zald, 1977). This emphasizes the importance of social movement organizations (SMOs) as a basis for mobilization by providing resources and organizational structure to movements, which dominated the social movement landscape well into the early 2000's. This observation shifted views on social movements from informal, spontaneous gatherings of self-organizing individuals to a more formal, organized entity mediated by an organization, often with paying members (Caniglia & Carmin, 2005). In this theory, the SMOs themselves are viewed as rational actors on their own accord. An example of these types of organizational structures is the Sierra Club protesting dam development in the Grand Canyon in the 1960's or EarthFirst! organizing to protest deforestation in 1980 (Dreiling & Wolf, 2001). Due to the central role of SMOs in resource mobilization theory, the vast majority of this scholarship focuses on organizational aspects, how resources are obtained and used, and the general SMO structure

(Schaefer Caniglia & Carmin, 2005). Since the success of a movement is dependent on the resources an SMO is able to obtain, how the organization frames the issue it seeks to address must resonate with not only its existing members but also prospective recruits which can provide additional resources (Snow & Benford, 2000). Framing the contested issue is a dynamic process that requires the SMO to find the fine balance between member interests and external resource holders, such as donors (Zald & Ash, 1966).

An alternate approach to examining collective movements without foundations in resource mobilization theory is the political process or political opportunity theory, which focuses on external political factors that shape collective movement (Tilly, 1978; McAdam et al., 2001). Political process frameworks claim that large-scale social movements can be explained by external political opportunities. Individual, group, and community actions are shaped as a response to the external political climate and the political leverage that this setting provides for their cause through non-institutionalized means. As an extension of this framework, Tilly and Tarrow (2001) describe the contentious politics model as the "intersection of the familiar social processes of contention, collective action and politics" (pg. 7). Moving beyond political opportunity theory, the contentious politics model specifically describes of the role of governments in the processes of collective action-contention becomes political when it affects government interests or agents, due to the government's responsibility to regulate protests and power to either repress or facilitate collective claim-making (Tarrow, 1998). Some critiques of this approach question whether the government needs to be involved for collective action to be considered a social movement under the contentious politics definition and the observation that not all power lies solely within the government but is often dispersed among various centers (Armstrong & Berstein, 2008; Kolers, 2016).

The final major development in collective action theory is the cultural cognitive model, which broadly refers to theories which argue that collective movements cannot be understood without their social and cultural contexts, referred to as 'identities' (Gahan & Pekarek, 2013). This theory rejects approaches based in structuralism and rational choice as a comprehensive model to describe social movements, including political process theory and resource mobilization theory (Melucci, 1996). Cultural cognitive models focus on how framing can shape the ways in which meaning is constructed within collective movements and the influences of cognitive attributions (culture, values, beliefs, ideas) (Klandermans & Goslinga, 1996; Caniglia & Carmin, 2005). A subset of this lens is Habermas' new social movement theory (1981) which is rooted under the premise that it is not internal resources or political climate that distinguish a movement, but the conflict which it is built upon. Working largely through observations of shifts away from 'old' labour movements, Habermas suggests that 'new' movements organize around lifestyle, accountability, and identity as opposed to material demands (Habermas, 1981; Edwards, 2004). Habermas describes 'new' social movements as a "defense of existing lifestyles" (pg. 116)- where the principles of rationality used to examine economic-labour movements are extended into new areas of life (Edwards, 2004). This theory also has implications for school of thought on surrounding public and private space scholarship, extending to modern movements such as environmental or feminist movements, among others.

2.1.3 Social Movements in an Era of Digital Communication

Though the classic theories discussed above provide an important foundation for thinking about collective action, they can seem outdated when applied to the social movements we observe today. A large component of this shift is due to the internet- in the last few decades, digital media has become more accessible than ever before with profound impacts on how we learn, communicate, and interact with the space we exist in (whether this be physical or online). Protests such as the Arab Spring, los Indignados, and the Occupy movement embody these changes- the late

2000's to early 2010's mark the integration of digital media technology with social movements (Tufekci, 2018). The central point of this transition is the role of communication tools and digitally mediated networks in collective action (Bennett & Segerberg, 2012; Kavada, 2015). With social media platforms, websites, and other digital media making connecting with others accessible at a minimal cost, previous explanations of social mass movement behaviours and trends fail to account for these rapidly changing phenomena. For example, social movements or protests often occur entirely online without an official organization at the forefront, such as the #MeToo movement (Suk et al., 2021). This means that describing contemporary social movements that utilize the online sphere require thinking beyond just the role that formal resources and political opportunity play.

The idea of connective action, coined by Bennett and Segerberg in *The Logic of Connective Action* (2012), integrates various aspects of communications theory with previous knowledge of collective action to expand social movement understanding within the context of social media. The cornerstone of this logic is the shift away from the centralized, organizationally mediated action frames of the late 1900's and the emergence of more personalized communications and as a result, more personalized action frames. Collective action that occurs through digital space (such as social media platforms) results in highly individualized action frames reflecting individual wants, needs, grievances, and hopes (Bennett & Segerberg, 2012). These messages are easy to customize and encourage users to contribute to the collective by sharing their own personal experiences with the greater collective. Personalized action frames are more flexible than traditional action frames revolving around a formal, central organization with a higher requirement for participation, giving more space for self-expression and making movement membership more inclusive of personal reasons behind political involvement (Bennett & Segerberg, 2012). The "we are the 99%" slogan of the Occupy movement is an example an easy to personalize action frame- a relatable, catchy slogan that gave individuals space to offer their personal experiences.

Other differences exist between collective and connective action on both an individual and organizational level. For individuals, the logic of connective action is the process of situating personal ideas, beliefs, and actions within an overarching political purpose as a contribution to the common good, whereas collective action models generally view social networks and relationship building as one of many informal conditions required for centralized mobilization, but not the essence of a social movement (Bennett & Segerberg, 2012). On an organizational level, the difference between the two logics stems from the replacement of formal organizations as the organizing agent with technological processes, leading to the formation of a decentralized network with various content creators as opposed to one or two central organizations, meaning that there is (usually) no clear movement leader (Bennett & Segerberg, 2012). Instead, emphasis is placed on the co-production/distribution of content by numerous individuals who are driven to contribute through personal and self-motivated reasons (Milan, 2015). The high requirement for frequent, self-motivated participation within online networks forges connections between individuals or groups who previously did not know of each other or existed on the periphery of each other's networks, also known as the formation of 'weak tie networks' (Kim et al. 2020). Weak-tie networks refer to the observation that within social networks, the connections that tend to be most influential in spreading information is acquaintances, as opposed to close ties like friends and family (Granovetter, 1973). The use of digital media as the organizing agent in combination with self-motivated and loosely coordinated membership removes many traditional resource demands of social movements such as network building between organizations, member recruitment, and issue framing (Bennett & Segerberg, 2012).

Bennett and Segerberg (2012) classify three distinct logics of action and place them on a spectrum which also acknowledges a hybrid model (Figure 2.1). Though it can be tempting to view this spectrum as the degree of digital media use in each collective action framework, the true

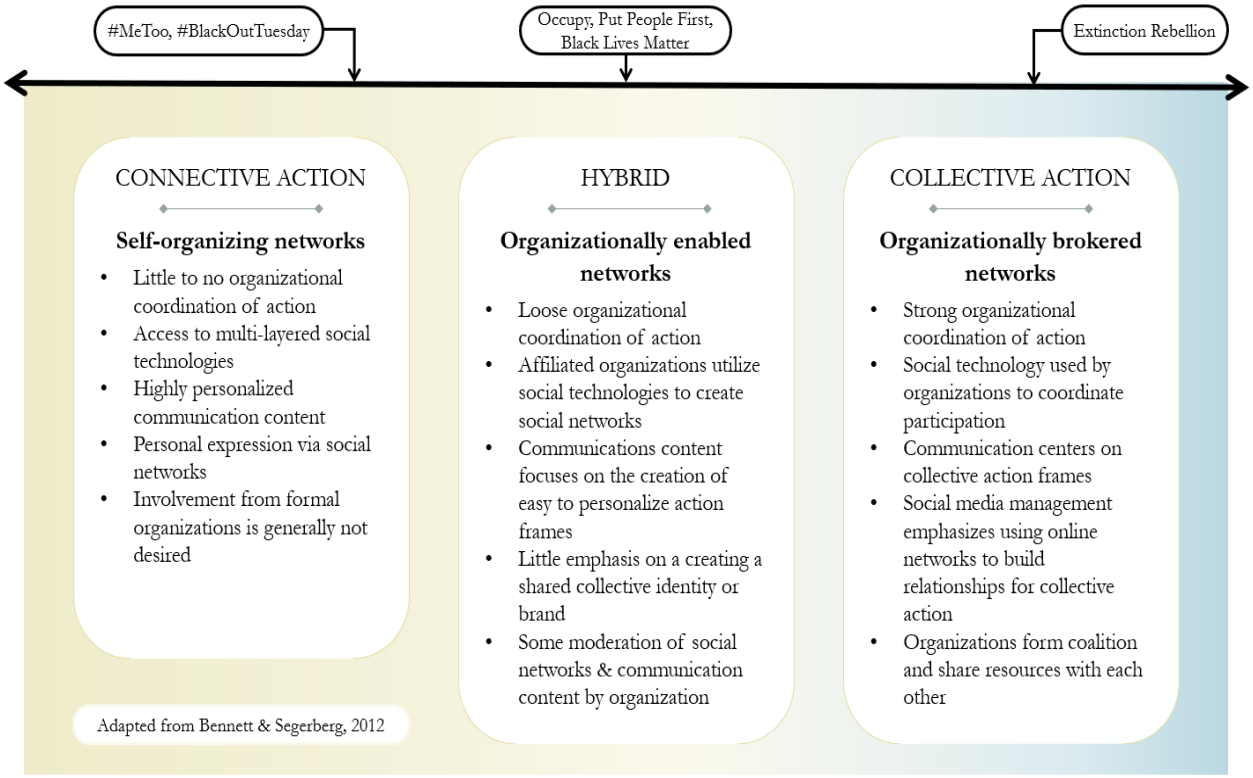

Figure 2.1. An overview of Bennett & Segerberg's (2012) model of connective action, adapted with examples from recent social movements.

determining factor of where a movement falls on the spectrum in Figure 2.1 is the central organizing agent. The Extinction Rebellion is a good example of this distinction- though the movement itself has a variety of online components such as a website with educational content, a strong social media presence aimed at humanizing the issue and assembles by creating events on platforms such as Facebook or Instagram, the central organizing agent of this movement is the Extinction Rebellion organization itself. True to the collective action model, the emphasis of this organization is on membership recruitment, member engagement and education, and meeting up as a collective both online and physically (Corry & Reiner, 2021). As such, though at first glance it may seem to fit the hybrid typology, when looking solely at the role of social media as an organizing agent it is clear that this movement leans heavily towards the collective action framework, as opposed to other movements such as #MeToo or #BlackOutTuesday (Kountouris & Williams, 2023).

On paper, the ample differences that exist between connective and collective action make it seemingly simple to classify movements. In reality, social movements are not linear processes, and these categories are by no means mutually exclusive or static, with layers of meaning that is constructed and deconstructed simultaneously in multiple ways (Ginneken, 2003; Shafi & Ran, 2021). Bennett and Segerberg's typology and coining of connective action is effective in highlighting how the rise of digital media has impacted mass movements, but various criticisms and modifications of the logic of connective action have risen as the field of technological communications expands. Criticisms of Bennett and Segerberg's work include an over-emphasis on self-organizing of people as opposed to the role of social media as an organizing agent and the dismissal of the "politics of the platform" (Milan, 2015, pg.2). To fully explore the dynamic and complex nature of today's social movements, these critiques beg for further examination- how do the properties of this novel organizing agent impact collective action? Is this online space an impartial and apolitical one? Or does it come with its own biases, boundaries, and rules? If so, how do these rules shape how we interact with and navigate these spaces as both collectives and individuals?

2.2 The Online World

If you are an internet user in some capacity, the answers to the above questions regarding the logic of connective action raise may seem fairly intuitive. The most popular networking sites, notably Twitter and Meta Platforms (parent company of Instagram and Facebook), are marketed as an open, accessible space to connect with others at your convenience (Milan, 2015). While this may be true to a certain extent, the reality that earlier social media scholars such as Bennett and Segerberg (2012) fail to account for is that these spaces also are proprietary, centralized, and have internal motives beyond just the facilitation of online socializing, putting social media platforms in a unique position

in the chasm between the public and the private (Burkell et al. 2013). To add to its complexity, the online sphere is undergoing a constant and dynamic process of meaning-building which brings content from an imagined space into a real one (Milan, 2015). This section begins with an examination of how this techno-social realm can best be understood using existing work on the concept of space, then continues on to explore existing perspectives on how these technological structures intersect with the very human process of building collective identities. Finally, trends in individual interactions with political content in the online sphere is examined, with a specific focus on how the issues discussed are navigated on a micro level.

2.2.1 Where is "Online"?

To understand how individuals come together for shared political interests via social media, it is important to first examine some core concepts around sense of place. The thirdspace (or third space) is a term coined by Bhabha (1994) and brought to life in the works of Edward Soja. Soja's work was inspired by Lefebvre's (1974) interdisciplinary approaches to the discourse of spatiality, namely the "triple dialectic" (p.7) of spatiality, historicity, and sociality (Soja, 1998). The thirdspace represents a simultaneously real and imagined, "constantly shifting and changing milieu of ideas, events, appearances, and meanings" (pg.2) that space holds (Soja, 1998). It can be understood as an assemblage of physical space, the meaning we give it, and the meaning which emerges from humans interacting with and within the space throughout time (Gamson, 1990; Soja, 1998). To anchor the abstract nature of this concept in the 'real' world, let's take (an extremely simplified) look at the various layers of meaning that a national park would hold. The park itself is the physical land which it is on- the one that can be highlighted on a map. But this neatly packaged bundle of land is also much more than that- it is the meaning we assign to it as individuals, communities, and collectives. On the most superficial level, society generally understands it is an area which serves the purpose of

conservation and recreation. Beyond this, it is a space inseparable with the vast cultural meaning it holds to the Indigenous communities- long before it was colonized and legally defined by a rigid settler system, simultaneously making it a politicized space (Carroll, 2014; Kelly, 2011). On an individual scale, it is a wedding, a business retreat, a first date- a place of connection that everyone leaves with a slightly different experience shaped by their past and present. This is a simplified example of what Soja describe in his writing- a series of tangible and intangible processes of meaning building that are both dynamic and abstract, but at the same time also very real.

The non-linear nature of thirdspace is one that challenges existing binaries[3] and opens up the "Other" - a space beyond an inflexible dualism which allows room for concepts defying the rigid boundaries. In relation to thirdspace, Soja (1998) describes the Other as:

> "a meta-space of radical openness where everything can be found, where the possibilities for new discoveries and political strategies are endless, but where one must always be restlessly and self-critically moving on to new sites and insights, never confined by past journeys and accomplishments, always searching for differences, an Otherness, a strategic and heretical space "beyond" what is presently known and taken for granted." (Soja, 1998, pg. 35)

This poetic account of Otherness captures the marginality and radical nature of thirdspace as an Other while remaining deeply applicable as we examine the relevance Soja's works on space and place hold today. Reading the above quote today without previous knowledge of Soja's work, one might easily mistake it for a description of existing in online sphere. Much like thirdspace, the ambiguity and flexibility of the online sphere opens space for the Other.

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[3] Some examples of concepts commonly presented as binary include subject/object, past/present, nature/culture.

The observation that many attributes of Soja's thirdspace parallel current conversations around the online sphere is no coincidence, given that the ability to connect through digitally networked media is the very act of collectives creating meaning through performance and interaction (Gamson, 1990). Though the internet contains various elements and types of platforms, my focus is specifically on social media. As described by Edirisinghe (2011), social media sites are designed to be "one platform which can be customized yet universally defining similar functions, ambiguous but with one clear intention- connectivity" (pg. 401). The dynamics and conceptualization of the online world on paper makes much more sense when situated in broader knowledge of spatiality and its meanings. Tangible elements of social media are the visual elements of the interface (and the code itself) and intangible ones are the connection and access that it provides to others (Latour, 2005; Edirisinghe, 2011).

Where a binary understanding of space struggles to adequately describe social platforms, the conceptualization of social media through Soja's thirdspace excels. Milan (2015) applies these concepts to mobilizing via social media platforms through the term 'cloud networking' and 'cloud protesting'. Building off the critiques of Bennett and Segerberg's connective action, 'cloud protesting' acknowledges that digital collective action is a sociotechnical process as opposed to just a communicative or sociological one- meaning social media shapes interactions instead of just facilitating them (Milan, 2015). The cloud represents an imaginary space in the sense that much like a phone conversation, the discourse between individuals does not exist solely on one device or the other, nor does it exist entirely in the mechanics responsible for the technical aspects of communication (Milan, 2015). It is intended to be a framework which simultaneously emphasizes the organizing abilities of social media, the sense-making efforts of individual activists, and the technological processes which shape how online interaction occurs. The cloud hosts a set of symbolic 'ingredients' which enable users to form personalized narratives, identities, and networks.

Looking back to original collective action theory, these 'ingredients' or 'soft' resources described by Milan contrast the hard resources described by early social media scholars, such as money and labour which are no longer significant barriers for social movements organizing through social media (McCarthy & Zald, 1977; Milan, 2015). Though the 'ingredients' are immaterial, they are enacted and conceived through a symbolic negotiation between users in both online and physical space and brough to life through the material infrastructure of social media platforms (Milan, 2015). The concept of 'cloud networking' establishes that social media is a political space, enacted through an identity-building process entangled within the symbolic and the material.

Though literature describing space and its theoretical parallels to the conceptualization social media provides insights into the relationships between physical and digital space, this is a complex concept shaped by a multitude of factors. Place attachment theory explores how people experience attachment and build identity upon a given space (Proshansky, 1983; Rajala et al., 2020). This is composed of two elements- the attachment to a place and the identity associated with a place (Proshansky, 1983). A large segment of this research focuses on landscapes and outdoor spaces, with factors such as length of exposure to the space, knowledge, social connection, and exposure to natural landscape all shaping the relationships formed between people and spaces (Brown & Raymond, 2007; Matarrita-Cascante, 2010). This is a robust set of concepts that though applicable in many ways, require analysis and attention beyond the scope of this thesis, especially when examining attachment and identity that transcends both physical and digital space. As such, an in-depth exploitation of the Grassy Mountain Mining Project and place attachment within the context of online social media activism is best left for future research.

2.2.2 Techno-social Dimensions of Social Media

Social media is marketed and positioned as an equal and accessible space that provides opportunities, but the structures shaping how content is presented on social media often tell another story (Heyman & Pierson, 2015). Described as a 'platform society', today's online networking climate is a global conglomerate of various platforms that though independent in structure, exist under the common mechanisms of the web (Gillespie, 2010). A handful of global mega-corporations such as Google or Meta Platforms retain access to huge amounts of data on user demographics and behaviour, meaning the structure of the online sphere has implications for 'real life' (Helmond, 2015). With nearly all societal actors present online and intertwined in the ongoing online negotiation of meaning-building, the far-reaching nature of these platforms has an impact on politics, economies, and culture which forces all social actors to, either consciously or unconsciously, recalibrate their position in public space (Dijck & Poell, 2015). It is known that the design of physical spaces affects how people use it and how deliberation occurs in that space, and this extends to the material structure and design of digital networking platforms (Drucker and Gumpert, 1996; Milan, 2015). However, rapid technological advancements in combination with a general lack of transparency on behalf of corporations makes it difficult to make conclusive statements on the techno-commercial impacts of social media platforms on online behaviours.

Existing concerns include the centralized and profit driven nature of platforms, opaque and proprietary nature of algorithms, and the resulting privacy concerns (Heyman & Pierson, 2015; Milan, 2015). The algorithms utilized by networking platforms are the programmed, invisible forces which form the rules of interaction within a platform, with the intention of keeping users engaged though rapid turnover and the sorting of content based on past-use data (Milan & Velden, 2016). Algorithms create and reinforce 'weak tie networks', as users are more likely to see types of content

shared by their indirect network that aligns with their interests and motivates the user to continue interacting with the content and hence, the platform (Zhong, 2022). Not only are social media platforms brokers between individual interaction, but they also gain profit by mediating interactions between the consumer and the seller, generally through paid advertising (Heyman & Pierson, 2015). Ultimately, algorithms are commercial mechanisms whose proprietary nature offers little information about the logic or mechanisms behind its structure.

Specific to collective identity building, the impacts of this techno-commercial structure are evident in the algorithmic encouragement of recurring interaction and engagement. Properties of social media are designed for rapid content turnover, constantly introducing novel elements into individual meaning-building efforts (Milan, 2015). The positive effect of this infrastructure is the reduced cost of mobilization through increased access to information and decreased barriers to participation in political discourse (Bennett & Segerberg, 2012). It also means that individuals can easily customize and personalize their narrative, that the collective then 'votes' on by selecting which content to emphasize and share (Milan, 2015). This collection of personalized content and interactions with accounts of other individual's experiences is the basis of digitally mediated collective action. However, it also results in a need for the re-enactment of social action through constant negotiation and reinvigoration of identity (Edirisinghe, 2011). The rapid cycle of content production and interaction favors engagement over sustainability, resulting in the short life cycle of online movements which makes performance and participation a key aspect in the visibility of online political action (Edirisinghe, 2011; Milan, 2015). Another major concern with the structure of social media platforms as facilitators of social movements is the formation of echo chambers, as individuals generally seek out content which they are already interested in which the algorithm further reinforces by showing content related to those specific preferences, resulting in views being reinforced rather than challenged (Heyman & Pierson, 2015). The fear is that this leads to the

polarization of political conversation online, leading to decreased deliberation. It is also important to note that the majority of research on the topic of online echo chambers has been conducted on a macro scale which may not be representative of the realities of individual conversations online (Vitak et al., 2011; Greijdanus et al., 2020).

These points raise an interesting question about the nature of collective action online- how closely does individual behaviour mirror that of a collective when it comes to online action? Early collective action scholars, Bennett and Segerberg (2012), Milan (2015), and others all agree that regardless of the mediating technology or organizations, individuals are the core of the formation and meaning-building efforts of collective actions. However, we have yet to discuss the individual perspectives and behaviours around political deliberation online that contribute to the collective and how those contributions are defined.

2.2.3 Political Participation Online

Collective action and the organization of movements is a robust topic spanning numerous disciplines. As we've seen so far, social movements as a whole are adaptable to different environments, social settings, and forms of communication. In the field of collective action theory, the discussion of individual behaviors, attitudes, and motivations that contribute to the organization of a collective has been largely neglected by scholars. Specific frameworks, such as Milan's "cloud protesting" (2015), have intentionally left space for understanding the individual but still keep to a fairly high-level analysis. Close up, the understanding of online political participation is much less straightforward. We begin with a discussion surrounding the meaning of variables most commonly looked at when describing online behavior, including political participation more broadly and concepts such as 'slacktivism'. Once the semantics have been established, factors that make a specific individual more or less likely to participate in online political discourse is examined, as well

as trends in individual online political behavior specific to Facebook. Finally, connections are made to previous theory to examine how individual behavior oscillates between the physical and online spheres.

What does it mean to participate in online politics? Some individuals may consider political participation to be sending a link to a Facebook friend without having any other interaction with the content, while others may classify this as far from genuine engagement with the subject. At its very broadest, political participation is defined simply as "citizens' activities affecting politics" (pg.2) (van Deth, 2021). This definition, however, does not offer much support in today's reality where increased access to information, decreased borders between the public and private sphere, and general higher education levels result in the expansion of political participation (van Deth, 2021). Various scholars have attempted to redefine political participation in ways which are more suited to today's society, but the broadness or specificity of such definitions can sway data analysis and findings (van Deth, 2021). Specific to online political participation, a 2021 systematic literature review finds that only 32.4% of publications on the topic of online political participation have definitions of the term that refer exclusively to the online sphere, with 30.5% of publications referring to online and offline participation jointly (Ruess et al., 2021). Additionally, less than one-fifth of definitions in literature account for passive activity, though evidence suggests that passive attention to political content, such as reading news articles, is closely linked to information dissemination action and it the more passive levels of involvement that are commonly the beginnings of individual involvement (Cantijoch et al., 2016; Boulianne, 2019). Van Deth (2021) suggests giving political participation an "operational definition… specifying the exact properties that are required to determine its existence" (pg.6) and puts forth a decision tree to help determine the type of political participation being conducted. This model prioritizes the acting aspect of political action, but also leaves space for intentions as a determining factor. One critique to note is

that this model does not account for non-action, such as deliberately not purchasing unethically sourced products online. However, this is the beginning of a greater debate beyond the scope of this thesis.

When discussing political participation as a collective, concerns of superficial or ineffective contributions to a movement or cause are often voiced. The fear of freeloading and other "feel-good forms of political participation" (Vitak et al., 2011, pg. 6) is especially prevalent in the world of online activism and has come to be known by the term 'slacktivism'. In literature, dismissal of online mobilization as 'slacktivism' or of lesser value than physical presence at a protest is primary voiced by pre-internet scholars but still occasionally echoed in more recent works (Vitak et al., 2011). The majority of evidence suggests that overall, there are primarily positive relationships between online and offline activism as well as increased visibility for the cause through social media use (Tufekci & Wilson, 2012). It is important to note that this evidence is specific to activism non-repressive contexts and under different regimes, increased visibility online may lead to further repression and thus, a negative relationship between online and offline activism (Greijdanus et al., 2020). A subsection of research finds neither a positive nor negative relationship between online and offline activism due to individuals restricting their actions to one domain or acting differently depending on the context (Greijdanus et al., 2020). However, little research supports a direct trade-off or between online and offline activism (Greijdanus et al., 2020). Recent evidence does not support digital dualism and instead demonstrates that individual relationships between the online and offline sphere are complex and multi-faceted (Milan, 2015; van Dijck & Poell, 2015; Greijdanus et al., 2020). This means that the research surrounding the relationships between online and offline participation is highly contextual, which partly accounts for the high degree of variance between conclusions regarding the effectiveness of online political participation.

With individuals being the unit of a social movement, the emotional state and intensity of the person generating online content is a major driving force in online discussion and participation, for both themselves and those interacting with their content (Chmiel et al., 2011; Garcia, 2016). When encountering online content which evokes emotional arousal, the user is more likely to participate in online discussion, regardless of whether this emotion is positive or negative (Garcia, 2016). However, in a thread-based social media environment[4] both the type of content the user contributes and the length of the interaction between users engaging in discussion, is primarily influenced by the valence (perceived intensity) of their emotions (Chmiel et al., 2011; Garcia, 2016). Chmiel et al., (2011) found that though the length of a thread is largely dependent on its mean valence, all threads tend to conclude at a similar emotional level regardless of their length.

Individuals being more likely to engage in online spaces when they feel strong emotion has strong ties to collective action, especially when emotion is evoked through shared injustice. A meta-analysis of 403 papers, conducted by Agostini and van Zomeren (2021), found that politicized identities, efficacy, the emotional experience of injustice, and moral conviction had the strongest positive relationship with collective action on an individual level. Politicized identity refers to identification with a certain movement or the perception of oneself as an activist. The development of a politicized identity is strongly linked to moral conviction, especially when it is tied to tangible outcomes (Agostini & van Zomeren, 2021; Judge, 2022). Often the emotional response to injustice is based on a trigger event, with "felt injustice" (p. 686) being a stronger motivator than perceived injustice (Agostini & van Zomeren, 2021). This is also consistent with the observation that higher emotional valence and arousal leads to increased online participation. Though the factors discussed play a significant role in understanding the emotional and identity-based motivators of collective

[4] For example, Twitter discussions, Facebook or Instagram comments with replies, or discussion-board style platforms such as Reddit.

action, it is worth noting that many other variables shape collective action and are highly context dependent.

2.3 Covid-19

This section begins with a brief overview on how individual online behavior and use of physical space has shifted since the onset of the pandemic, then continues with a discussion of the impact Covid-19 had on social movements.

2.3.1 Interactions with Space During Covid-19

On both an individual and a community scale the pandemic resulted in an inevitable shift in how we use our space, interact with others, and make our voices heard, as well as the medium through which these actions occur. Nearly overnight digital devices became central to most aspects of social connection with dates, parties, family get-togethers, and other activities being hosted in virtual spaces (Beech, 2020; Lovari & Bowen, 2020). In addition to socializing, much of the time spent online was dedicated to keeping up with current events and pandemic updates, with 'quarantine' ranking amongst the most common globally searched terms during times of severe outbreaks (Brückmann & Martinez, 2022). As a result, the average internet user experienced a 50-70% increase in online activity, amounting to a screentime of five hours per day, with at least half of this time spent on social media (Beech, 2020; Balhara et al., 2020; Dienlin and Johannes, 2020; Vanderloo et al., 2020). Though this led to a wave of concern regarding the impact of screentime on well-being, it is difficult to draw conclusions on well-being at such a complex time. Little research has been done specifically during Covid-19 on screen use and health, but pre-pandemic work generally finds no impact to a moderate impact on personal well-being, which is generally dependent on the perception of individual users on their engagement and types of online activity, as opposed to

time spent online (Hancock et al., 2019; Liu et al., 2019). A 2020 study done by van Bavel and their colleagues examined the impacts of social media use during Covid-19 and found a positive relationship between social media use and social connectedness, capacity-building, and acquiring knowledge. This is supported by qualitative findings, with ~40% of individuals reporting a stronger sense of community and stronger ties to friends and family during lockdown periods (Macmillan, 2020). Similar to individual trends in online behavior during the pandemic, governments also pivoted to greater use of the online sphere for public opinions on decision-making through the use of online discussions, forums, polls, and other tools (Chwalisz, 2021).

With such a dramatic transition into the online sphere, what was going on in physical spaces throughout the pandemic? One major shift that occurred is how people view and use natural spaces. Data emerging from the first six months of the pandemic shows that the usage of natural spaces increased in proportion to Covid-19 cases (Lu et al., 2020). This shift also impacted perceptions of natural spaces. When asked about the state of the environment during lockdown, people reported observations that the environment around them is cleaner or that natural spaces and their inhabitant are recovering with decreased human use. For instance, 51% of UK residents said they noticed cleaner air and 27% noticed more wildlife during lockdowns (Macmillan, 2020). Though this may be true in the short term or under observable means (people see more wildlife due to factors such as decreased traffic) there is little data to support the long-term environmental benefits of Covid-19 mandates or significant contributions to climate change, resource extraction, or conservation methods (Rume & Islam, 2020).

2.3.2 Social Movements During Covid-19

Another major outcome of the pandemic was the magnification of existing injustice surrounding the use space and who is free to move between different spheres during a major health

crisis. Soon after restrictions on mobility were put into place, it became evident that the ability to transition important aspects of life online for personal safety is a privilege. More severe health outcomes are tied to economic status, race, sex, gender, and other social determinants of health (Government of Canada, 2021b). Various studies show that lower income individuals continued to move around during the pandemic to access work, while higher income individuals were able to limit their movement as they were more likely to transition to remote work (Valentino-DeVries et al., 2020). As a result, it was more difficult for lower income workers to protect their personal safety and if they became sick, lack of job security or health benefits made the financial repercussions of contracting Covid-19 much more severe (Valentino-DeVries et al., 2020). Racial minorities faced disproportionate challenges- including racism due to misconceptions about the pandemic, fear of abuse by authority figures with increased surveillance methods, exacerbated systemic healthcare inequities, and beyond (Addo, 2020, Bhui, 2021; Stahl, 2021). Use of domestic abuse helplines and reports went up around the world within the first few weeks of Covid-19 (Townsend, 2020; Usher et al., 2020). Clearly, how space is used and who has access to it has a major impact on well-being.

Dozens of social movements of varying size and impact have occurred within the backdrop of the Covid-19 pandemic. In Canada and the US, the Black Lives Matter protests, #EveryChildMatters, the Freedom Convoy, and various other smaller political movements dominated the online sphere and directly impacted policy surrounding the issues in question (Carothers & O'Donohue, 2020). Every one of these movements was composed of a novel blend of online and offline action that enabled participants to feel connected to a political cause without compromising their safety (van der Zwet et al., 2022). This also means that each movement took up space in unique ways- from the blaring physical occupation of space on behalf of the Freedom Convoy to the flood of black squares on social media during #BlackOutTuesday to nearly everything in-between. Though none of these protest tactics are necessarily new, navigating

restrictions on movement during a global crisis through the use of the (seemingly boundless) online sphere places online collective movements in a very new context, especially given the risks associated with large gatherings, subsequent restrictions, and increased policing (Lee, 2021).

Social movements advocating for environmental causes also faced significant shifts in lieu of the pandemic, resulting in changes to uses of online and offline space. The years prior to the pandemic saw a rise in the visibility environment related movements such as the Youth Climate Strikes, Canada-wide mobilization in support of the Wet'suwet'en nation's opposition to the Coastal GasLink project in British Columbia, and the Extinction Rebellion protests. After the outbreak of Covid-19, updates on the virus dominated media. Ongoing environmental movements got pushed out of the spotlight and were driven to change how they performed activist actions, especially activities such as protests and strikes which traditionally require a collection of individuals in a physical space (Rauchfleish, 2020). In line with other social movement trends in 2020 and 2021, Canadian environmental movements relied heavily on online tools to mobilize (Forrest, 2020). To demonstrate the relevance of environmental action and increase the visibility of their efforts, many activists intentionally framed environmental issues within the context of Covid-19 (Rauchfleish, 2020). Though little research exists on these shifts and their effectiveness, a study by Arya (2021) examined the challenges and opportunities Covid-19 has brought to youth climate protests. Interviewees found that that shift online allowed more network building opportunities, participants in rural communities felt more involved, and lifestyle changes due to the pandemic allowed more time to spend on online actions (Arya & Henn, 2021). The challenges voiced in this study capture many of the concerns around online political movements and increased use of technology during the pandemic, including difficulties taking direct action, content getting lost in the quick turnover of social media, online surveillance, and fear of online action being less impactful than physical mobilization (Arya & Henn, 2021). Other, smaller environmental movements that arose during the

pandemic also faced unpredictability from their inception, however, few articles exist on the adaptations of grassroot movements during the pandemic.

2.4 Next Steps

Environmental movements are a unique subset of collective action to examine when studying how political interests in both physical and online spaces are advocated for during the pandemic. Since the central element in most environmental protests is physical space, the observation that most of the action surrounding these movements was done primarily online has the potential to deepen our understanding of the complexity of political spaces in a digital age. From a policy perspective, this knowledge can offer a deeper understanding of the impact online space has on setting the political agenda, whose interests are being voiced through these channels, and the factors that shape how influential their voices are. Insights can also be gained on interactions with physical environments and individual motivations for voicing political interests within that space. Only a handful of literature exists on environmental political activism during Covid-19, with all peer-reviewed works focusing on environmental social movements which were well established prior to the beginning of the pandemic.

In pursuit of filling these gaps, the research undertaken in this thesis examines the evolution of an environmental social movement set entirely within the peak of the Covid-19 pandemic and ensuing restrictions. This research offers valuable insight on the intersection of the environment as a political space and the online sphere to advocate for political interests.

Chapter 3: Methodology and Methods

3.1 Guiding Frameworks

3.1.1 Defining Political Participation

As was discussed in Chapter 2, there is no universal definition for political participation, especially when it comes to the online sphere. However, conducting research online often requires a deliberate choice of posts and clear exclusion criteria. Since this project examines online political participation, relatively clear guidelines for identifying political participation are required. An approach developed by van Deth (2021), which is reproduced as Figure 3.1 in this thesis, is used as the guiding work for determining what constitutes political participation. The decision to use this specific approach was made primarily because it encompasses various levels of political participation which systematically account for both action and intention. This allows room to classify different forms of participation which allows for a more in-depth understanding of exactly what political participation online looks like. Within the context of this research, one weakness of van Deth's (2021) operational definition is that it is not exclusive to online political participation. Though valuable to note, this did not present issues in data collection or analysis due to the research design- since the social media analysis was restricted to only posts on Facebook groups, the 'online' aspect of online political participation is difficult to dispute.

The complexity in individual political interactions on social media is difficult to capture, as various factors can aid in predicting both participation trends and the value which individuals extract from online activism. A useful tool for predicting engagement in politics via social media is perceived political efficacy. This can be broken down into three separate sub-types: external efficacy, internal efficacy, and collective efficacy (Halpern et al., 2017). External efficacy is an individual's

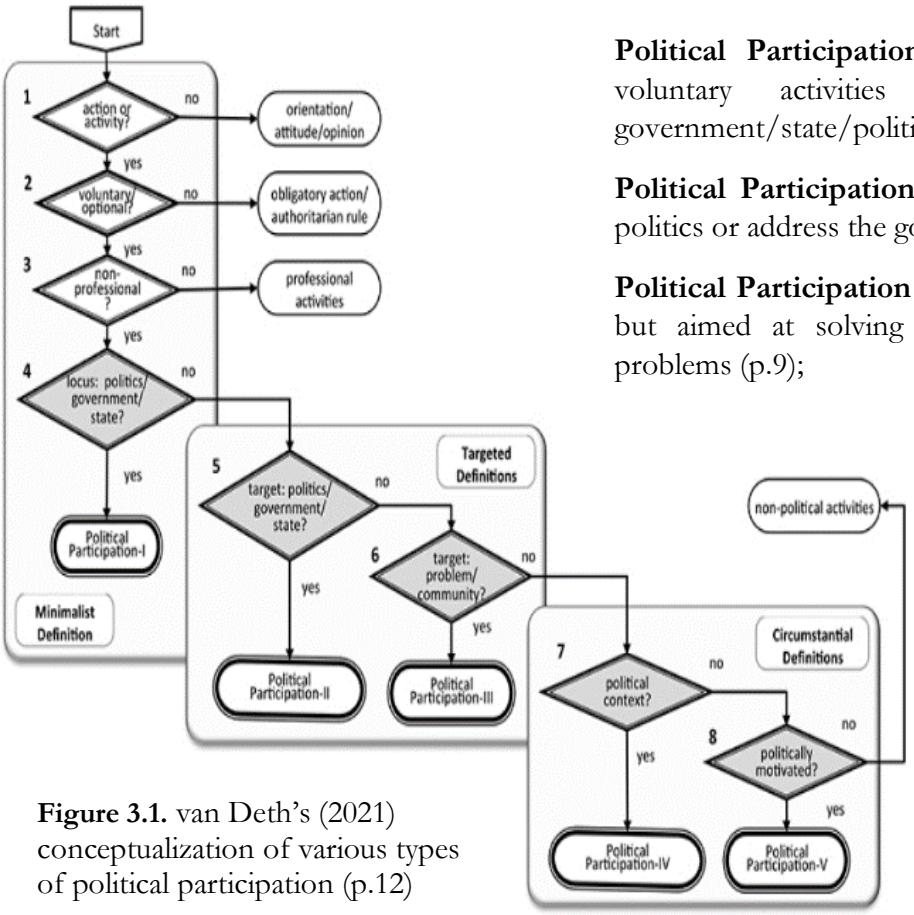


Figure 3.1. van Deth's (2021) conceptualization of various types of political participation (p.12)

Political Participation I- all non-professional, voluntary activities in the sphere of government/state/politics (p.8);

Political Participation II- activities that include politics or address the government/ state (p.8);

Political Participation III- building off previous, but aimed at solving collective or community problems (p.9);

Political Participation IV - non-professional, voluntary activities which are not political but occur in a political context *(*p.10); **Political Participation V** - all voluntary, nonpolitical activities by citizens used to express their political aims and intentions that do not fit into one of the previous four types of participation (p.11).

perception of a politician's or government's willingness to respond to their opinions (Esaiasson, Kölln, & Turper, 2015). Internal efficacy is an "individual's perceived capacity to influence the political system" (Halpern et al. 2017, p 322). Collective efficacy is an individual's belief in their capacity to reach a collective goal with others (Bandura, 1997). Haplern et al's (2017) examination of political sharing on social media finds a positive link between high collective efficacy and offline political participation, as well as collective efficacy and internal efficacy. This means that social media users who feel like they are able to successfully advocate for their political interests both individually and as a collective are significantly more likely to engage in political participation offline. This also supports findings that internal and collective political efficacy is strengthened through the discussion of issues with others (Finkel, 1985).

When discussing specific social platforms, Twitter users show higher internal efficacy whereas Facebook users show higher collective efficacy (Halpern et al., 2017). Facebook was also found to have a higher overall impact on offline political participation, which ties into previous observations that ceasing Facebook use reduces acute understanding and knowledge of political news (Mosquera et al., 2020, Allcott et al. 2020). These observations can be attributed largely to the differing structures of each platform, as Facebook networks are generally built through personal connections with real-life 'friends', whereas the social networks formed on Twitter are usually mostly separate from user's offline networks (Halpern et al., 2017). These networks have been linked to increased political participation, likely through increased access to political content (Gil de Zúñiga et al., 2012; Loader, Vromen, & Xenos, 2014). Individuals with stronger 'weak tie networks' on social media are also observed to have higher self-efficacy and political knowledge- factors which correlate with higher levels of offline political activism (Kim et al. 2020). The structural ability to organize 'events' on Facebook also contributes to increased connection to offline political participation, with the specifics of many on the ground protests such as the Climate Strikes or the Arab Spring being organized using this feature (Arya & Henn, 2021; Tufekci, 2018)

The above observations raise a variety of interesting questions, especially within the context of online political participation during Covid-19 restrictions. Evidence suggesting that social media platforms and their specific structure has an impact on various aspects of political participation forms the basis of my research approach. This thesis examines how shifts in navigating space due to the pandemic and the subsequent increase in the use of social media as a communication tool has shaped how individuals advocate for their political interests in the online sphere and how this translates into tangible change within physical space. Through a case study of the proposed Grassy Mountain coal project, I examine how various actors conceptualize and communicate political interests within social movements occurring in both online and offline settings. Within this process,

the structure of social media and its contributions to shaping online social movements is also examined. To best capture conversation within the online sphere, I use a two-pronged research approach that aims to gain an overview of online political participation as well as understand the nuances and impacts of these conversations. This includes a social media analysis of four public Facebook pages and supplementary interviews with individuals that contributed social media content to these pages.

3.1.2 What is a Social Media Analysis?

The existence and extensive use of social media in the public domain has great potential for both commercial and academic purposes. Since 2014, social media platforms have become increasingly popular for obtaining large data sets as they allow for access to both qualitative and quantitative data, including levels of engagement with each piece of content posted, who it reached, positive and negative reactions to the content, and conversations surrounding the topic (Batrinca & Treleaven, 2016). When combined with the rapid content turnover on popular social media platforms such as Twitter and Facebook, it is possible to access comprehensive data on a topic in a fragment of the time it would take using traditional methods such as a document analysis. Beyond this, social media also offers access to dynamic and real-time data, meaning that it is not only the content itself that can be examined but the ways in which this content changes over time or in response to current events. Social media can be open source (such as Wikipedia), entirely private (an organization's Microsoft Teams), or a mix of both (Batrinca & Treleaven, 2016). Popular platforms such as Facebook and Twitter are mixed as they contain both elements accessible to the public and elements that are private (at least to the average user) (Batrinca & Treleaven, 2016). Social media analysis refers generally to the use of public content, making it a data collection method at its core (Franz et al., 2019). This data can be understood through various qualitative and quantitative analytic

approaches. Though it offers great potential, social media analysis as a research method also comes with some setbacks- especially when used in an academic (as opposed to commercial) context, as much of the data collected through mixed social media platforms is proprietary and not open (Andreotta et al., 2019). Often, even when social media data is perceived as public, the platform is not designed in a way that the average user can access a full dataset.

Social media data can be obtained in two ways- manual extraction from the platform and the use of intermediary software to access the database where information is stored, which is called application programming interfaces (APIs) (Andreotta et al., 2019). The latter generally requires strong knowledge of programming languages such as Java and is intentionally made difficult to access by the platforms, creating a barrier for many researchers. Third party software exists and can aid researchers in navigating API's by automating the process, called 'data scraping' or 'data mining' (Andreotta et al., 2019; Batrinca & Treleaven, 2016). Even though they are marketed as digital public spaces, most social media platforms are commercial entities and are not entirely open source. They are also quick to flag and ban IP addresses that continuously access content, meaning that extra precautionary steps are required to use this approach (when web pages ask you to confirm that you are not a robot, they are screening for automated processes such as these) (Andreotta et al., 2019). Manual data extraction is just that- manually scrolling through the page and entering the data into another program, such as excel, in the desired format for analysis. A variety of examples of each approach exist within literature, with the appropriate choice of method depending on research goals, access to resources, and the researcher's skillset (Franz et al., 2019). Nearly all quantitative social media analyses benefit from the use of API's to extract data as it allows for quick access to thousands of data points which exist as discrete values (for example, number of likes or number of people the post reached) (Andreotta et al., 2019).

For qualitative approaches, such as a thematic analysis of post content or interactions, it is often more advantageous to manually extract data from the original source within the platform (Batrinca & Treleaven, 2016). Qualitative methods are primarily used to gain an in-depth understanding of the research topic and its narratives, especially in instances where the data is not easily quantified (such as the text of a post, image, or specific language choices in a comment) (Batrinca & Treleaven, 2016). Manually extracting data offers a more intimate relationship with the content and allows the researcher to become familiar with general sentiments before a formal analysis. Additionally, qualitative analysis often requires less data as one data 'point' often contains a wealth of information- one post on Facebook could have a text block, an embedded link, and an entire conversation about the topic in the comments. Though examples of researchers using API's to collect data for qualitative analysis exist (Kent et al., 2016; Xu et al., 2021) and in some situations, such as examining Twitter hashtags, the use of an API may be appropriate, automating the extraction of qualitative content can often be more time consuming in terms of formatting raw data and has significant gaps in the type of content it can recognize (Batrinca & Treleaven, 2016). Since most data used for qualitative research approaches is not discrete, categorizing and formatting data is often a judgement call- automating this by training a computer to make these judgement calls is a technical and time-consuming endeavor.

Though social media data provides a multitude of research opportunities, a variety of downfalls to social media analysis exist. Online social interactions relating to a specific topic are rarely exclusive to one platform and as discussed, different platforms are used for different purposes and by different demographics, specifically in terms of age (Franz et al., 2019). This means that even if all the posts on a social media platform regarding a topic are examined, the reality is that there is much more content spanning other platforms. Generally, a network is created- social media posts link to other forms of media such as videos or websites that users interact with, and often websites

link back to various different social platforms (Bennett & Segeberg, 2012; Franz et al., 2019). This presents limitations in the amount of data a researcher can realistically access- mapping out networks takes years of work by a dedicated team and even then, these networks are always changing as content is created (Franz et al., 2019). As such, most literature tends to focus on one or two specific platforms as opposed to mapping the entire networks, which requires methods that require a deep dive into computer science. When conducting research using qualitative methods within a social media analysis, it can also be difficult to accurately account for various forms of information (Franz et al., 2019). For example, it is common for a single post to contain text, emojis, photos, and links, along with the responses of other users to this content (which also often contain various media forms). Interaction between users is a key aspect of social media, which means that discussion within the comments of a post can provide valuable insight (Franz et al., 2019). However, most research studies to date fail to capture this conversation by examining either only user-generated content or only user-directed content[5] (Franz et al., 2019). Finally, social media analysis methods are relatively easy to scale, especially when automating the process, but it is difficult to replicate exact methods. This is due to a variety of factors including the dynamic nature of social media, the proprietary nature of data on commercial platforms, and a lack of transparency in current research employing these methods (Franz et al., 2019; Kent, 2016). In a 2019 meta-analysis of social media analysis done on Facebook, the majority of research articles did not describe their methods thoroughly enough to replicate (Franz et al., 2019). This makes it difficult to establish best practices when conducting social media analyses in a research context.

[5] "User-directed content" is not a widely used term in literature but is used in this thesis to refer to individuals engaging with someone else's content, most commonly by commenting on it.

3.2 Methodology

3.2.1 Positionality

The non-renewable resource extraction industry- specifically oil and gas and mining, is a politicized topic in Alberta. Growing up in the province and supported largely by this industry, I am familiar with this political climate and the nuanced conversations surrounding it. My background in the sciences, current pursuit of an environmental policy degree, and personal interests resulted in much of my post-secondary work being deeply intertwined with these conversations from a range of technical, environmental, and social perspectives. Quickly, I came to realize that finding an individual with no strong opinions on the industry was an exception- everyone (including myself) seemed to have a relatively strong stance on the value of non-renewable resource extraction and its future. My long-time exposure to the topic gives me a strong understanding of the evolution and complex nature of the issue, as well as effective strategies for navigating these conversations.

My relationships and experiences with the space that I exist in are intertwined with the benefits that come alongside my place within it. My views and approaches to research are inherently shaped by the socio-economic position I hold as a white, established colonizer living in an urban region. I also benefit from Alberta's fossil fuel economy, while experiencing minimal environmental risk from the extraction and consumption process. I also have access to a reliable, affordable internet connection, which is not the reality for many individuals around the world.

3.2.2 Justification

The rich political discourse that occurred within the online sphere, the timing of this project, and final policy decision of behalf of the Government of Alberta makes the proposed Grassy Mountain mining project an ideal case study for exploring how individuals advocate for their

political interests in the online sphere and its impact on policy decisions. Given the complexity of how online resources are mobilized in acts of advocacy for the physical space we occupy, this research draws connections between a variety of existing theory through an analysis of online discourse regarding the Grassy Mountain Mine project. Examining these connections and their relationships through a case study of the Grassy Mine project sheds further light on how various aspects of policymaking can be shaped by public participation in online space and the processes through which this occurs. This research also provides insights that can be applied beyond this case study, as questions regarding the ongoing integration, impacts, and governance of emerging technology are becoming increasingly pressing policymaking, academic research, and industry.

3.2.3 Methodology

At its core, the nature of this research is exploratory, as provides a novel examination of the intersection of digitally mediated political participation in both physical and online settings. This analysis of online discourse regarding the Grassy Mountain Mine project draws valuable connections between various realms including the public sphere, political participation via social media, the meaning-space holds across various contexts, and the environment. Due to the context within which the case study is situated, this research also increases the understanding of how online grassroots movements get translated into on the ground activism and policy change in times of crisis. The decision to take an explanatory, single-case approach was made since no prior academic research around the Grassy Mountain Mine activism exist and a wealth of social media data is available to explore this project. In addition, the volume of both textual and quantitative data collected in the social media analysis provides a solid foundation for pursuing a wide breadth of future research related to the topic.

Though a significant component of this project is a social media analysis, supplementary semi-structured interviews were conducted to support findings from the social media analysis. Conversations regarding the energy sector are a controversial topic and more specific prompts during a semi-structured interview were thought likely to give greater depth to the findings than just a stand-alone analysis of social media. Additionally, research by Elder (2020) shows that online comments and responses, especially on public groups, are likely to focus on attacks of character when viewpoints are questioned, which often shut down conversations on online platforms. As such, the aim of the interviews with individuals active in the groups is to have a more nuanced conversation and clarify any points that may be unclear in the social media analysis.

3.3 Methods

3.3.1 Social Media Analysis

The primary data for this project was obtained through a social media analysis, which includes the manual collection and thematic analysis of data from Facebook (this is be guided by the primer written by Franz et al., 2019). Since social media analysis data was collected through a public Facebook group, where all posts are visible to viewers of the page (regardless of whether they have a Facebook account), GC-REB approval was only sought for the qualitative interview aspect of this research. To ensure privacy for the individuals posting on the pages examined, any information that could reveal the poster's personal identity was removed. This includes names, gender, location-specific information, business names, or any other identifying characteristics.

Data collection and analysis focus primarily on the content posted within public Facebook groups and various engagement metrics of individuals' posts that were made from December 21, 2020 (when the first Facebook page dedicated specifically to the Grassy Mountain Mining project

was established) to August 6, 2021 (Grassy Mountain Mines project suspended). Specifically, the groups "Protect Alberta's Rockies and Headwaters" and "Crowsnest pass. Ghost town" are examined, as they were created within the last three years and are dedicated primarily towards expressing interests regarding resource extraction projects specific to the Crowsnest Pass region. Additionally, relevant content from the "Around and About the Crowsnest Pass" and "Crowsnest Pass- Uncensored" public groups is also included in the analysis. Only posts which are directly or indirectly linked to the politics of Grassy Mountain are collected- for example, content describing the general impacts of open pit mining is included in data collection, whereas content regarding mask mandates is not. In instances where uncertainty regarding the relevance of the content exists, the posts were flagged and re-examined in the context of key themes upon the completion of the analysis. For example, multiple posts in the two community pages that are not explicitly about the issue of coal mining ("Around and About the Crowsnest Pass" and "Crowsnest Pass- Uncensored") contained artwork of Grassy Mountain and the Eastern Slopes, without any other political content or any personalized comments. These were flagged during the initial data collection and once a preliminary analysis of all four groups was conducted, it became clear that there was a distinction between posts containing artwork for political purposes (such as the painting of a landscape accompanied with a message describing the artist's intention of commemorating the region before it is, in the perspective of the viewer, destroyed by a mining project) and artwork posted with no explicit political purpose (such as post containing artwork of a landscape to advertise the artist's presence at an upcoming community sale). Though there will always be some degree of judgement to be made in order to enforce the distinction of political versus apolitical posts, applying van Deth's (2021) model of political participation, and re-examining these posts within the context of the whole dataset gives a systemic approach and justification for making these distinctions.

Given the relative novelty of social media analysis as a research method, a variety of additional barriers were encountered in the initial stages of data collection. These were primarily due to the structure of Facebook and somewhat unexpectedly, resulted in valuable insights into the research objectives (see Chapter 6 discussion). A consistent approach to collecting posts across the four groups was required. Scoping research and a test case conducted upon the proposal of this research showed a third-party data scraping software which could automate the collection process to be the most thorough and time efficient method of collecting posts from public Facebook pages. However, upon the time of data collection six months later, Facebook had filed a lawsuit and blocked the collection of their data through the software[6] (Octoparse). As such, an alternative method of data collection was deployed and posts were collected manually. Due to the high number of posts in the "Protect Alberta's Rockies and Headwaters" public page during the time period examined (an estimated 1600 posts and 33,000+ comments) and an inaccessibly high level of computing power required to load the posts via scrolling, a systematic method for manual collection was created using keyword searches using the Facebook search function. Though time consuming, this ultimately proved to be beneficial, as it allowed the researcher to become familiar with the content prior to analysis and gave a general overview of the themes being discussed. This approach also maximizes data security and avoids breaching any policies Facebook may have put in place against the use of automated programs to obtain and store data in light of the recent lawsuit.

Five keywords related to the topic were chosen based upon an exploratory review of the recurring words that were present in political posts regarding the issue, where searches were

[6] More information on the legal dispute can be found here: https://techcrunch.com/2022/07/06/meta-sues-chinese-companys-us-subsidiary-for-scraping-facebook-and-instagram-data/

conducted with variations of keywords related to coal mining and their synonyms, with the conclusion that the five words listed above yielded content matching inclusion criteria most consistently. Word modifiers (such as "-ing", "-ed", "-s") and capitalization did not seem to make a difference in search results. The words "Alberta", "coal", "Grassy Mountain", "mining", and "environment" were individually searched in each group. Within a public Facebook group, various filters can be applied when a keyword is searched, including the year it was posted. As such, a total of 10 keyword searches per group were made (keyword+ year filter). To ensure that posts were being captured proportionately over the timeframe in question; posts from each group were collected for every week between December 21, 2020 and August 6, 2021. Within this process, some weeks had many more posts than others and as such, a cap of five posts per week was established, collected in order of appearance within the search. This decision was made to capture a representative number of posts from each week, while ensuring data collection and analysis remained within the scope of a master's thesis. Data was gathered into numbered "bundles" which consisted of the posting date, type of post (text, link, video, etc.), textual post content, any embedded content with a brief description[7], post positive reaction count[8], post negative reaction count[9], surprise reaction count[10], total reaction count, share count, number of comments (direct comments + comment responses), total engagement (total reaction count + shares + direct comments + comment responses), and the text of the first five direct comments (comments containing only a tagged user were disregarded to ensure adequate data for analysis) (Figure 3.2). The decision of taking the first five comments (as opposed to the top most "liked") was made to get a

[7] Brief descriptions consisted of 2-3 words describing visual content or the title displayed for links. For example- "photo; landscape" or "link; Alberta awards 11 coal leases in SW Alberta for $36 a hectare; [hyperlink]"
[8]Positive reactions included "like", "love", "care", and "haha".
[9]Negative reactions included "sad" and "angry".
[10] Surprise reaction includes "wow".

Table 3.1. Summary table: total number of posts collected.

Facebook group	Keyword					Total (# of posts collected per group)
	Alberta	Coal	Grassy Mountain	Mining	Environment	
Protect Alberta's Rockies and Headwaters (PARH)	121	123	104	103	98	549
Crowsnest pass. Ghost town (CPGT)	10	13	9	12	0	44
Around and About the Crowsnest Pass (AACP)	1	0	1	1	1	4
Crowsnest Pass-Uncensored (CPU)	2	4	4	4	1	15
Total (# of posts collected per keyword)	134	140	118	120	100	**612**

ALBERTA	"Bundle" #	Date posted	Type of post	Post content (text only)	Embedded content title & link (if applicable)	Post positive reaction count	Post negative reaction count	Surprise reaction count	Total reaction count	Share count	Number of comments (direct comments + comment responses)	Direct comments (first 5)				
Apr	96.00	2022-04-26	text	Hi,	NA	68	0	0	68	7	45	They	You	I see a	I	I
25-May 1	97.00	2022-04-28	text;	Acknowled	photo; Threats	57	0	0	57	5	12	Thos	Last I	Its all	#Ca	Tha
	98.00	2022-04-26	text	I think	NA	135	1	0	136	11	11	Well	Very	Well	Wel	You
	99.00	2022-04-30	text;	I am so	photos;	1347	2	0	1349	106	197	My	preci	The	Tha	I'll
	100.00	2022-04-29	text;	Last night, I	artwork	280	6	2	288	45	52	#Can	good	What	I	I

Figure 3.2. A snapshot of the data collection framework and raw data management. The columns correspond with the type of information being gathered and the rows correspond with the date and each unique post "bundle".

representative snapshot of comments, as opposed to comments that were most popular with the users (though the latter would be a fascinating endeavor for future research and expansions of this dataset). As well, Facebook's structure for filtering comments under each post changed multiple times over the time period in which data was collected, including a series of months when it was not possible to filter through comments based on the most "liked". Given the high volume of comments, manually finding the most liked comments would have significantly extended the data collection timeframe for this thesis. All data was anonymous, with no personal information collected on posters and any potential identifiers, such as names and select locations, redacted from the

dataset. To clean the data in preparation for analysis, all bundles matching more than one keyword within a group were removed to ensure there were no duplicate posts within the dataset. Table 3.1 shows an overview of the number of unique posts gathered per keyword and group. See Appendix A for supplementary social media analysis information, including a weekly breakdown of post counts.

To analyze the data, a social media analysis was conducted employing methods similar to ones used by Xu et al. (2021) to analyze Facebook comments. Qualitative elements of the dataset (post content, type of post, type of embedded content, and comment text) were analyzed using NVivo and visualized using Excel. The remainder of the dataset was analyzed quantitatively via Excel for each group (both by keyword and by date) through the use of summary tables, including both sums and averages of each metric. This approach allows for the coding of key themes qualitatively while also making it simple to cross reference and support findings with visualizations of quantitative elements.

3.3.2 Supplementary Interviews

The latter component of this project utilized supplementary interviews with individuals who have contributed social media content on Grassy Mountain to the Facebook groups. As such, the aim of the interviews is to have a more nuanced conversation and clarify any points that may be unclear in the social media analysis. Ethics approval (GC-REB; Reference no. 20230638) was obtained prior to conducting interviews- the letter of approval can be found in Appendix B.

The interviews were conducted online (via a Memorial University WebEx account or phone call) and followed a semi-structured style, to ensure main points were covered but interviewees still had the space to elaborate on the points important to them and the nuances of a politicized topic.

An interview guide based on recommendations put forth by DiCicco-Bloom and Crabtree (2006) was followed. The decision to conduct interviews online was made for multiple reasons. First, since the nature of this project examines behavior in virtual space, the online sphere is a fitting place to have a conversation and being in a similar environment may make it easier for interviewees to think back on specific instances of their online participation. Second, resource extraction is a highly politicized topic, especially in areas such as Crowsnest Pass where the local economy is fueled by the industry. The ideal interview space is a private one where the interviewee feels comfortable expressing genuine feelings towards the topic. Online interviews minimized both health risks and the personal risk associated with an interviewer discussing a highly politicized topic in a public space. Finally, online interviews are generally easier to plan for both partners and are easier to record without background noise. Interviews were voice recorded with the permission of participants and handwritten notes were taken throughout the interviews by the researcher. All interviews were conducted remotely- three using WebEx and one via phone call.

Participants were recruited through a public post made on each of the public Facebook groups of interest, using a Facebook profile created by the researcher for the purposes of this thesis. Though all the groups are public, the admin(s) of each group were privately messaged via Facebook prior to publicly posting to show that post is legitimate, nothing posted goes against the group guidelines set by the admin(s), and as an invitation to share the opportunity with their network. The public recruitment post was not made unless approved by an admin. To qualify as an interview candidate, the participants must have:

(1) Contributed content (in either the form of a post or a comment) regarding either the Grassy Mountain Mining project or the energy sector to the group(s) in question; and

(2) Made these contributions between December 2020 and August 2021.

These criteria were outlined in the post and group members interested in participating were asked to private message the researcher over Facebook if they were interested in being interviewed (see Outreach Materials document). Individuals that expressed their interest via private message were contacted within 24 hours on a first-come-first-serve basis. To ensure potential participants were serious about being interviewed, only text-based responses that address the purpose of recruitment (i.e., being interviewed) in some manner were considered. Messages including attachments such as links or images were excluded. When confirmation that the criteria have been met was received and the individual was still interested in participating, the researcher did all further planning via email, including sending the consent form.

Though the researcher aimed for six interviews distributed in proportion to each group's following (three participants from "Protect Alberta's Rockies and Headwaters" and one participant from each of the remaining groups), only four interviews total were obtained due to lack of admin response to recruitment posts. During the interviews, the consent form was reviewed with the participants and verbal consent to both the interview and to recording the interview was obtained. Verbal consent was recorded and stored separate from the interview recording to ensure anonymity, with all interview data stored under password protected files. The Facebook group that each participant is affiliated with was verbally confirmed in the first interview question to guide the interview, but due to anonymity concerns within a small community, group affiliation was not used within analysis. The interviews took between 45-90 minutes with each participant. Once interviews were completed, recordings were transcribed using Descript, and any identifying information (including group affiliation) was redacted from the document. Interview content was analyzed through qualitative methods using NVivo, with data coded and sorted following the process described by Hsieh and Shannon (2005). The themes emerging from each interview were examined individually, then by the themes and processes which emerged within the social media analysis.

3.4 Case Description

3.4.1 The Politics of Alberta's Energy Sector

Alberta holds a rich political history around hydrocarbon extraction[11] (referred to as the 'energy sector'). Being a foundational economic venture for the province since the first major oil boom in 1947, the industry is inseparable from both the politics and the culture of the region (Takach, 2017; Adkin, 2016). As a result, this also makes the energy sector a highly politicized topic- critiques of the industry are often interpreted as critiques of identity, livelihoods, and lifestyles. The full story of non-renewable resource extraction and the energy sector in Alberta is a complex one featuring intergovernmental relationships, political conflict, collective identity, and highly contested vision of the future (Adkin, 2016; Adkin et al., 2017; Blue et al., 2018). In this section I offer a snapshot of the province as a global player in the industry, including a general overview of the energy sector, the politics of the industry, and the associated culture. I then briefly discuss the energy sector from an environmental perspective, including existing environmental policy and the murky future of the sector.

Though it is the subject of debate, Alberta is often understood through the label of a "petrostate", which refers to "a nation whose economy is highly dependent on the extraction and export of oil or natural gas" (Adkin, 2016). Prior to this discussion, it is important to note that this in an incredibly complex topic and petrostate theory is not the sole predictor of provincial trends and outcomes, nor does it perfectly describe the situation- there are a variety of other economic, political, and cultural factors at play. Regardless, the concept of a petrostate offers an effective framework for an examination of Alberta's political economy. Canada itself is not generally

[11] I refer to this as the 'energy sector' or 'resource extraction industry'. However, coal mining is often categorized as the "oil & gas industry" in less technical discussions.

considered a petrostate- though it is a major oil producer, the economy is sufficiently diverse for the state to not be solely dependent on oil and gas sector (Adkin, 2016). However, both social and economic indicators demonstrate that the province of Alberta as an oil and natural gas exporter is comparable to other so-called first world petrostates, such as Russia or Venezuela (Adkin, 2016). A large portion of the provincial GDP comes from the oil and gas industry, meaning that the Government of Alberta's revenue is deeply intertwined with the energy sector. The "mining, quarrying, and oil and gas extraction" industry accounted for 26.6% and 25.3% of the provincial GDP in 2019 and 2020, respectively, making it the highest earning industry (followed by real estate, retail, and leasing at ~10%) (Government of Alberta, 2021). The economic effects of the industry include a significant provincial profit from crown land leases for the extraction of hydrocarbon resources, provincial tax policy aimed at keeping oil affordable, and much of the province's other industries and employment reliant both directly and indirectly on investment into the sector (Government of Alberta, 2020b, 2022). When profits from the energy sector were at their highest in the mid-to-late-1900's, Alberta's population increased by two thirds as individuals pursuing work (primarily young men) moved to the province (Takach, 2017).

With the large impact of the oil and gas industry on Alberta's political economy in the last half-century, it is not surprising that the energy sector is deeply political and intertwined with governance structures. For four decades prior to 2015, the Progressive Conservative (PC) party remained in power and relied heavily on the boom-and-bust nature of the energy sector, with mass oil and gas infrastructure expansion during times of prosperity (Adkin, 2016). An interesting change occurred in May 2015 in the aftermath of the 2008 recession, when the New Democratic Party (NDP) gained majority government and implemented Alberta's Climate Leadership plan, which included a carbon tax. In the background of the NDP's term, the two primary conservative opposition parties merged to form the United Conservative Party (UCP). Running with the slogan

"Alberta Strong and Free: Getting Alberta Back to Work", the UCP's platform revolved largely around a repeal of the NDP's "job-killing carbon tax" (pp. 17) and proceeded to secure the majority vote in the 2019 provincial elections (United Conservative Party, 2020). Shortly after, the Climate Leadership Plan was abolished under Bill 1 (2019) and various other changes were made with regards to environmental policy. Faced with the unique governance challenges of the pandemic, the UCP's platform remains focused on various facets of freedom, including- freedom of speech, economic freedom, and free individuals (United Conservative Party, 2020).

Interwoven with the province's political economy, a strong collective identity around the oil and gas industry exists in both rural and urban Alberta. On the surface, this is readily observed in abundance of oil and gas themed truck decals and lawn signs. However, the significant political and economic role of the energy sector also shapes workforce composition, race and gender dynamics, and overarching ideologies. Specific to workforce composition, employment in the non-renewable resource extraction industry and related labor work is largely targeted at young men and has historically reinforced gender roles within the workforce. This imbalance goes hand-in-hand with the social dynamics of the industry that present a specific picture of masculinity, coined as 'frontier masculinity', which is:

> "[P]remised on a vision of the masculine as strong, rugged, self-sufficient – conquering the dangerous wilderness in the hope of striking it rich….In the context of Canadian settler society, frontier masculinity is a working-class notion of masculinity that defines itself against all that is considered feminine, nonwhite, and urban." (O'Shaughnessy & Doğu, 2016, p.268)

Though opportunities for working traditionally male jobs have become much more accessible to non-male individuals in the past decade, reports of harassment, a fear of personal safety, and lesser wages are far from uncommon (Adkin, 2016; O'Shaughnessy & Doğu, 2016). The idea of a 'frontier masculinity' also ties into the racial dynamics within Alberta, presenting significant barriers to non-

white individuals within the area including Temporary Foreign Workers (disproportionately women employed in childcare or housekeeping), recent immigrants, and Indigenous people[12] (O'Shaughnessy & Doğu, 2016; Parlee, 2016).

In addition to collective identities shaped by the dynamics of Alberta's political economy, framing on behalf of well-funded organizations representing industry interests harnesses the power of an already existing collective experience to further strengthen ties to the oil and gas sector and cultivate a very specific culture (Davidsen, 2016). A variety of both corporate and non-governmental organizations exist specifically to cultivate strategic messaging around the oil and gas sector- the Canadian Association of Petroleum Producers (CAPP), the Canadian Energy Center, and Canada Action have been at the forefront of rebranding the resource extraction sector and mobilizing citizens as industry advocates (Davidsen, 2016; Wood, 2019). This is exemplified in a variety of efforts over the last decade. Canada's Energy Citizen's campaign in 2014, a subset of CAPP that harnessed the use of social media for news coverage in support of the industry (without explicitly stating its affiliation with CAPP), created shareable content around the energy sector and directed followers to CAPP's website which provided an advocacy toolkit with pre-made media content (Wood, 2019; Canadian Association of Petroleum Producers, 2022). This specific campaign strategy was intended to amplify the voices of industry supporters to "make previously invisible citizen support more legible in public debates" (Wood, 2019, p.83). The Canadian Energy Center is funded directly by the Government of Alberta and works to "defend natural resources owned by Albertans, and of benefit to the entire country" (Canadian Energy Center, 2022, pg.3), which includes the highlighting the positives of the oil and gas sector for the economy, environment, and community,

[12] For further reading on the subject of Indigenous communities' experiences and challenges within the Alberta context, Parlee's 2016 work offers a thoughtful and in-depth account of Indigenous rights and governance with regard to various facets of the energy sector.

as well as conducting research[13] on the sector in the form of articles distributed through websites and social media. Canada Action, the distributor of I ♥ Canada Oil & Gas content, is a non-profit organization marketed as a grassroots movement of Canadian citizens in support of the oil and gas industry, often working in partnership with other organizations advocating for the sector through shared messaging on social media (Davidsen, 2016). Often collaborating on campaigns, these organizations form a backbone for strategically framing the resource extraction industry in both Alberta and Canada.

3.4.2 Environmental Regulation of the Energy Sector

Specific to environmental policy and regulations surrounding the energy sector, there have been various responses to concerns of the environmental impacts of the industry and approaches to minimize the harm caused by hydrocarbon extraction and consumption. Hydrocarbons refer to highly combustible organic compounds made of hydrogen and carbon which are found in petroleum (oil), natural gas, and coal. Coal can be classified into two categories- thermal coal, which is burned to produce heat; and metallurgical coal, which is used in industry. This case study pertains specifically to a proposed metallurgical coal mining project. Though it did not impact the project directly, an important aspect of understanding the case of Crowsnest Pass is the turbulent journey of Alberta's coal policy. Currently, both the Government of Canada and the Government of Alberta are in the process of phasing out thermal coal, which is burned to produce electricity. Metallurgical coal, such as that proposed for mining at Grassy Mountain, is not in the process of being phased out, but policies which further regulate its environmental impacts (such as emissions regulations and

[13] This research is not peer-reviewed and generally does not contain references.

EIA's) still apply to these endeavors. This section outlines broad environmental regulations regarding the energy industry on both a federal and provincial level, then specifically discusses Alberta's coal policy.

In accordance with international commitments, the Government of Canada aims to reduce GHG emissions by 2030, with net-zero emissions by 2050 (Government of Canada, 2022a). Multiple emission reduction projects are currently underway to meet these goals and are enforced by various policies and legislation including the Pan-Canadian Framework on Clean Growth and Climate Change (2016). The resource extraction industry, which is the largest emitter and accounts for roughly 27% of Canada's overall GHG emissions, has been specifically targeted through initiatives such as new cap-and-trade systems, modified carbon pollution pricing, cut subsidies for both domestic and international projects, a coal fired electricity phase-out by 2030, and a coal transition fund (Government of Canada, 2020a, 2021). Additionally, the mining of all coal will be further regulated by the proposed Coal Mining Effluent Regulations which limits the levels of various toxic substances in coal mining effluent and will apply to all existing and future coal mines in Canada (Government of Canada, 2022b). Beyond policies targeted specifically at GHG emissions, other pieces of federal legislation help shape the energy sector and its environmental impacts, notably the Canada Water Act (1985), the Species at Risk Act (2002), and the Impact Assessment Act (2019).

Within the federal context, the province of Alberta also has a variety of laws and policies that govern the specifics of the energy industry within the province. Due to the high provincial revenues brought in by the oil and gas sector, industry players also held a high degree of influence over policy decisions regarding the management of energy resources (Goodday, 2021). Provincially, a variety of regulation exist under the Emissions Management and Climate Resilience Act including an output-

based emission benchmark for large emitters (Technology Innovation and Emissions Reduction Regulation), a cap on oil sands emissions (Oil Sands Emissions Limit Act), the 2030 coal phase out, a 45% methane emission reduction (Methane Emission Reduction Regulation), renewables in fuels (Renewable Fuels Standard Regulation), and reporting regulations (Specified Gas Reporting Regulation) (Government of Alberta, 2022b). Indirectly, the Environmental Protection and Enhancement Act (EPEA) (2000), the Mines and Minerals Act (2000), the Public Lands Act (2000), and the Water Act (2000) govern oil and gas related activities.

In 1976, *A Coal Development Policy for Alberta* was introduced to as the primary policy regulation coal development within the province, with the purpose of encouraging coal development in Alberta to maximize benefits from surface-level mining and to formally designate areas where coal exploration is viable and areas where development should be limited (Government of Alberta, 2022a). There was a spectrum of four categories indicating various levels of restriction on mining, with Category 1 allowing no coal development (in areas such as Parks) and Category 4 allowing any coal development (Government of Alberta, 1976). Controversially, the *1976 Coal Development Policy* was rescinded on June 1, 2020 without any public consultation and amidst a major Covid-19 lockdown (Northern Saskatchewan Watershed Alliance, 2019). In the press release announcing this change on May 15, 2020, the rescindment was justified as "[t]he coal categories are no longer required for Alberta to effectively manage Crown coal leases, or the location of exploration and development activities, because of decades of improved policy, planning, and regulatory processes" (Chamberlain, 2020, pp.1). Even with other existing regulatory frameworks, this change meant that all but Category 1 restrictions that were previously designated in the Coal Development Policy would be removed, leaving various aspects of mining unregulated. This included the parts of the Eastern Slopes (designated a mix of Category 2 and 4 under the original Coal Development Policy), the mountain region around which the activism examined in this case study revolves (Northern

Saskatchewan Watershed Alliance, 2019). See Appendix C for a full map of areas impacted by the 1976 Coal Development Policy.

This change resulted in strong opposition from the public, due to both the environmental impacts of these changes and the lack of public consultation. In response, the Government of Alberta reinstated the *1976 Coal Development Policy* on February 8, 2021, and announced they would reconsider the coal categories, specifically through public engagement around coal exploration and approvals on Category 2 land, including the pause of all new exploration approvals (Government of Alberta, 2020b). This resulted in the continuation of the 1976 Coal Development Policy as well as a Ministerial Order restricting all coal exploration and development on the Eastern Slopes, regardless of their category (Lammie, 2022). It was in the greater context of these fluctuating policy decisions that the proposed development and public outcry on the future of Grassy Mountain and the surrounding area, referred to as the Eastern Slopes, took place.

3.4.3 Crowsnest Pass and the Grassy Mountain Coal Project

Crowsnest Pass is a specialized municipality located in southwest Alberta, sitting on the traditional territory of the Ktunaxa, Tsuut'ina, and Niitsítapi nations. The municipality is 80km north of the US border and the west side of the region sits adjacent to the British Columbia border (Municipality of Crowsnest Pass, 2019). Altogether, it incorporates the area of Improvement District no. 5 and five distinct communities: Bellevue, Blairmore, Coleman, Frank, and Hillcrest (Municipality of Crowsnest Pass, 2019). As of 2021, 5,663 individuals resided in the municipality (Statistics Canada, 2021). Both historically and today, the residents of the municipality are largely employed in the resource extraction sector, including both minerals, coal, and oil and gas (Statistics Canada, 2016). This section familiarizes the reader with the Crowsnest Pass region and provides background on the proposed Grassy Mountain Coal project.

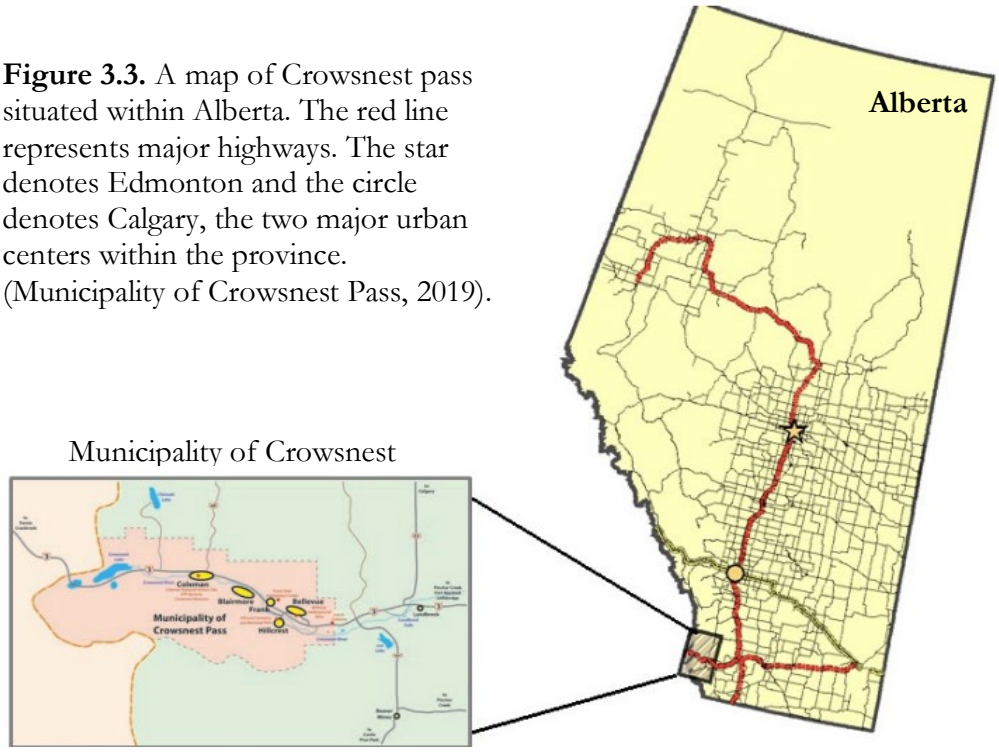


Figure 3.3. A map of Crowsnest pass situated within Alberta. The red line represents major highways. The star denotes Edmonton and the circle denotes Calgary, the two major urban centers within the province. (Municipality of Crowsnest Pass, 2019).

Crowsnest Pass was shaped into the area it is today largely due to its advantageous geography in an industrialized world- a corridor of gentle slopes at a low elevation surrounded by the high, mineral rich Rocky Mountains. These physical attributes made it both the ideal location for a railway and for mining endeavors which, in combination with federal economic development initiatives in the mid-late 1800's, resulted in the Canadian Pacific Railway's (CPR) expansion into the region in 1898 and the first coal mine of Crowsnest Pass opened in the town of Frank in 1901 (Alberta Culture & Tourism, 2022). The coal industry thrived under these conditions, but after Alberta's first major oil boom in 1947 and the subsequent transition of the CPR locomotives from coal to diesel-electric, much of the demand that fueled the coal industry of Crowsnest pass tapered (Alberta Culture & Tourism, 2022; Wetherell, 2005). More recently, much of the Crowsnest Pass population still works in the resource extraction industry. As of 2016, 19.2% of residents worked within mining, quarrying, or oil and gas (in comparison to 6.3% of Albertans and 1.5% of Canadians) and 24.3% of residents worked in the trades, transport, or equipment operation sector (Statistics Canada, 2016).

Unofficial reports place around 400 individuals making the daily commute over the border to work in B.C. coal mines. Apart from the resource extraction industry, a 2020 Crowsnest Pass community survey reported that 39% of residents choose to live in the area because of the recreation opportunities, with an overwhelming majority of residents stating that the elements of the region which they value most are access to nature, outdoor recreation opportunities, and the small-town atmosphere (Municipality of Crowsnest Pass, 2020).

The geographical region described above is referred to broadly as the Eastern Slopes and in addition to the local economic benefits it has provided throughout history, this area is also home to the South Saskatchewan Basin headwaters (Marshall et al., 2011). This basin is associated with the South Saskatchewan River, which begins flowing at the headwaters in the Eastern Slopes, continues across Alberta, Saskatchewan, and Manitoba, and ultimately drains into Hudson's Bay. For over 10,000 years, the basin has been a primary water source for the communities surrounding it, with an estimated 3 million people using this water system today for both irrigation, consumption, and recreation (Eamen et al., 2020). One key segment of Alberta's economy that places high stakes on the well-being of the basin is the farming and ranching community, who require healthy water and pastures to sustain their industry and livelihoods. In addition, numerous animal species are dependent on the river, including a variety of fish, birds, amphibians, and mammals protected under the Species at Risk Act (SARA) (Government of Alberta, 2007). There are also four internationally recognized Important Bird Areas established along the South Saskatchewan River (Marshall et al., 2011). Both the quality and quantity of this river are negatively impacted by rural and urban water use, pollutants from commercial activity, damming, and climate change (Eamen et al., 2020). This raises concerns regarding the future of the river and living beings that depend on it, especially when damage occurring at the most upstream point of the water system has the potential to impact millions of individuals. Grassy Mountain falls into Category 4 of Alberta's 1976 Coal Development

Policy, meaning that though the area was monitored, unrestricted metallurgical coal mining could still occur until February 8, 2021 (Government of Alberta, 2022a) (See Appendix C for a full map of areas).

Benga Ltd, the company leading the Grassy Mountain Mine project, submit their initial application to the Government of Canada for approval in 2015. In 2018, a Joint Review Panel consisting of the Alberta Energy Regulator and the Minister of Environment was established to further investigate the impacts of this project as per the Responsible Energy Development Act (REDA) and the Canadian Environmental Assessment Act (CEAA) (Government of Canada, 2020b). At this point, the project was actively opposed by CPAWS and had some coverage by media, but opposition had little mainstream traction until an online public hearing was launched by the Joint Review Panel in 2020 (Government of Canada, 2020c). On October 27, 2020, a public hearing for the proposed open-pit, metallurgical coal mining project on Grassy Mountain began, using primarily electronic means due to the pandemic. Throughout the hearing, the project gained increased media attention and opposition. In November 2020, the Niitsitapi Water Protectors were formed to protest the lack of consultation with Indigenous communities regarding the project and partnered with CPAWS in hosting information sessions regarding the project. By the time the hearing was concluded on December 2, 2020, the proposed project was met with great pushback from the public. At this time, the Joint Review Panel asked for an extension on a final decision regarding the project, due to both Covid-19 and the need to further investigate the newfound public concern (Government of Canada, 2021c).

An online grassroots movement of citizens advocating for the denial of the project began on December 21, 2020 through a public Facebook page called "Protect Alberta's Rockies and Headwaters". This group was established as the primary channel voice to concerns and rally support

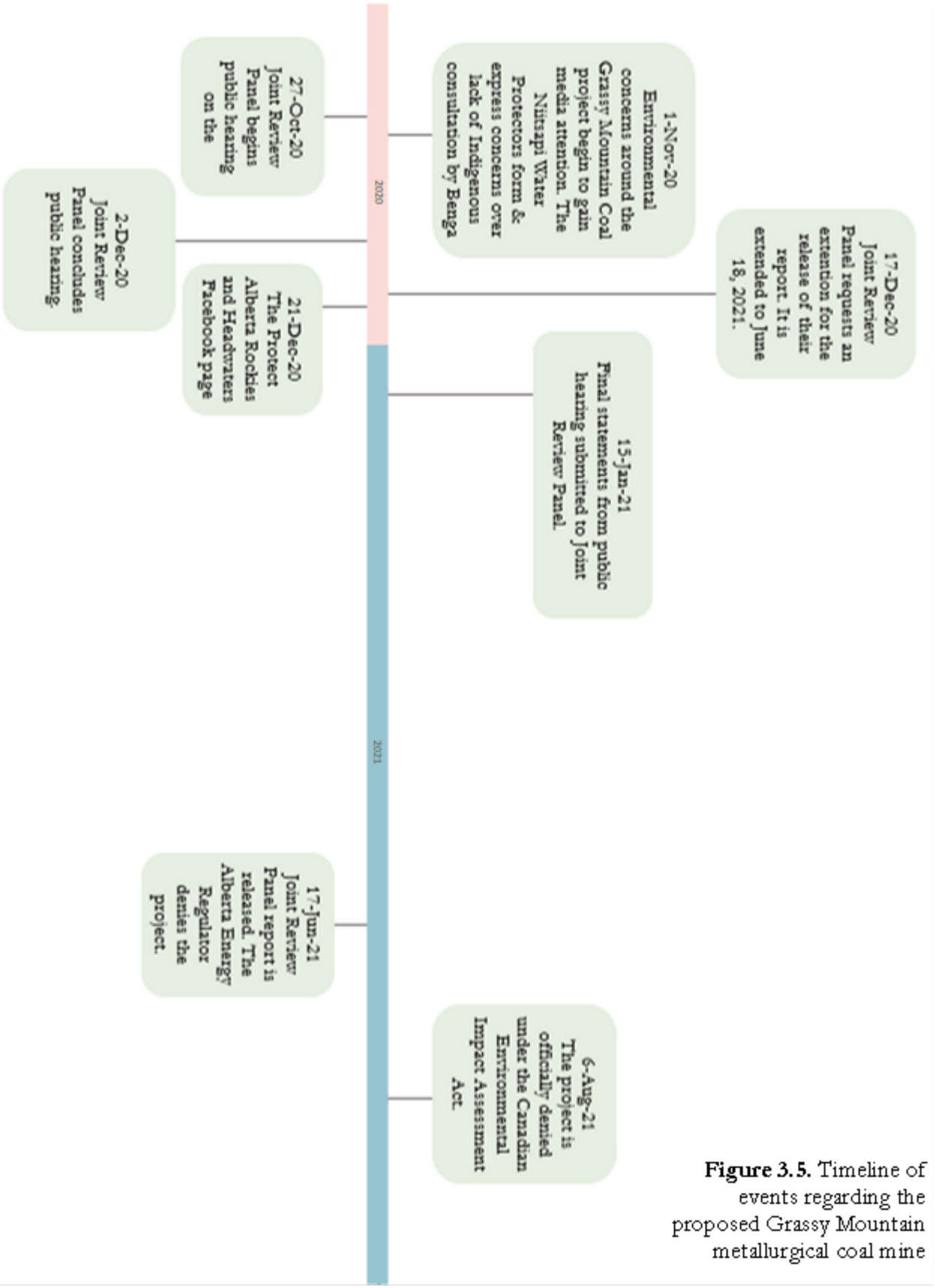


Figure 3.5. Timeline of events regarding the proposed Grassy Mountain metallurgical coal mine

against the mining project, primarily due to concerns of widespread environmental degradation due to the coal mine contaminating the headwaters and consequently, the basin and river. Over the course of a few months, the group gained a 37,000-person following (for context, this is over six times the population of the Crowsnest Pass region). However, pushback to this movement also occurred, with a Facebook group titled "Crowsnest pass. Ghost town" created specifically as a pro-mine response to the large anti-mine movement, and several other public pages ("Around and About the Crowsnest Pass" and "Crowsnest pass. Ghost town") expressing views on the issue. As of June 17th, the Joint Review Panel released their findings, and the Alberta Energy Regulator denied the project. By August 6th, 2021, the proposed development on Grassy Mountain was officially shut down by the Government of Canada, under the Canadian Impact Assessment Act (IAA) (2012) (Government of Canada, 2021c).

3.5 Conclusion

Once a fuller story of Grassy Mountain and the surrounding regions is understood, it is not surprising that tensions surrounding the Eastern Slopes and Grassy Mountain exist. Given the economic, environmental, and cultural value the region holds, this case study is situated at the collision of two opposing interests regarding physical space, which seem to be mutually exclusive to some degree. The peak of this conflict occurred within the backdrop of fluctuating restrictions on movement due to Covid-19 and both formal and informal communications regarding this issue were conducted primarily online (Assaly, 2021). These qualities, along with the researcher's lived experience and understanding of the political nuances of this area, make the proposed Grassy Mountain Mine an excellent case study for examining political advocacy within the online and offline worlds.

The impacts of the many individual voices that participated in these discussions and the collective they created can be observed through the various Facebook pages advocating different political outcomes for the Grassy Mountain coal mine. Using public Facebook posts and conversations surrounding the proposed coal mine as a case study, a qualitative social media analysis and interviews with online participants are used to better understand the various of aspects of political participation in both physical and online spaces during Covid-19.

Chapter 4: Social Media Analysis

As was outlined in preceding chapters, a social media analysis was conducted to further explore the use of Facebook as a communication tool used by both individuals and collectives to advocate for their political interests. Chapter 4 begins by setting the scene with a primarily quantitative analysis of basic group make-up and purpose, then continues on to present findings on social movement processes, networks, and approaches. The chapter concludes with a brief discussion of the social media analysis findings in their entirety, drawing connections to literature and their relevance in today's world. Diverse perspectives on the issue of coal mining between the selected groups and varying levels of participation, among other factors, tell an elaborate story of the nature of environmental movements in the 21st century.

4.1 Basic Group Information

Working off Milan's (2015) concept of cloud networking and other literature on both individual and collective political action, a mixed methods approach was taken to examine the discourse between individuals over Facebook and the complex processes of digitally mediated social movements. Activity surrounding the proposed Grassy Coal mine was examined over the span of 35 weeks on four public Facebook pages - "Crowsnest Pass- Uncensored" (CPU), "Around and About Crowsnest Pass" (AACP), "Crowsnest Pass. Ghost town" (CPGT), and "Protect Alberta's Rockies and Headwaters" (PARH). This section provides further information about these groups and trends in both levels of activity and types of activity between December 2020 and August 2021.

Across all four groups examined in this social media analysis, 484 posts with 2,420 corresponding comments were analyzed qualitatively, amounting to a total of 147,525 words of text-based data. In addition, the engagement metrics for the comments and posts were examined through

Table 4.1. A summary of the groups examined, their purpose, and engagement key metrics (number of members, number of posts analyzed, number of comments analyzed). Only original, non-duplicate posts and comments were counted.

Group name	Date created	Purpose Statement	Number of members	Number of posts analyzed	Number of comments analyzed
Around and About the Crowsnest Pass (AACP)	May 22, 2013	Welcome! This group is about stories and the happenings around the Crowsnest Pass. Please feel free to post missing people, pets, weather road conditions, whatever can help someone out, employment opportunities, yard sales, music and any other events that people maybe interested in.	5,779	1	5
Protect Alberta's Rockies and Headwaters (PARH)	December 18, 2020	We are a "loose coalition of concerned citizens." (The Tyee) This group is dedicated to raising awareness and information related to Alberta's proposal to restart open pit coal mining in environmentally sensitive areas like Crowsnest Pass and Kananaskis and Clearwater County (It's called that for a reason.) While we understand Albertans are hurting economically, starting open pit coal mining in sensitive areas is NOT the solution.	36,236	455	2275
Crowsnest Pass. Ghost Town (CPGT)	January 19, 2021	"I started a public group after being censored and banned from every anti coal group that are lobbying to shut it all down. They cost me and 140 other people to now be out of a job so feel free to join and I will try expose some of the people behind this lobbying like the md of ranchlands and Corb lund." -Page Admin	141	24	120
Crowsnest Pass – Uncensored (CPU)	June 1, 2021	Anything Crowsnest Pass related without the censoring of some of the other groups. Be kind and polite and anything goes.	1,421	4	20

a quantitative analysis of 2,904 unique data points (see Appendix D for term definitions). Table 4.1 provides a summary of the four groups including their purpose, the number of followers the group had at the time of data collection (follower counts are not available retroactively), and a count of the data analyzed for each group. Two of the groups were created specifically for the discussion of coal mining in Alberta, with PARH taking a strong anti-mining stance and CPGT taking a strong pro-

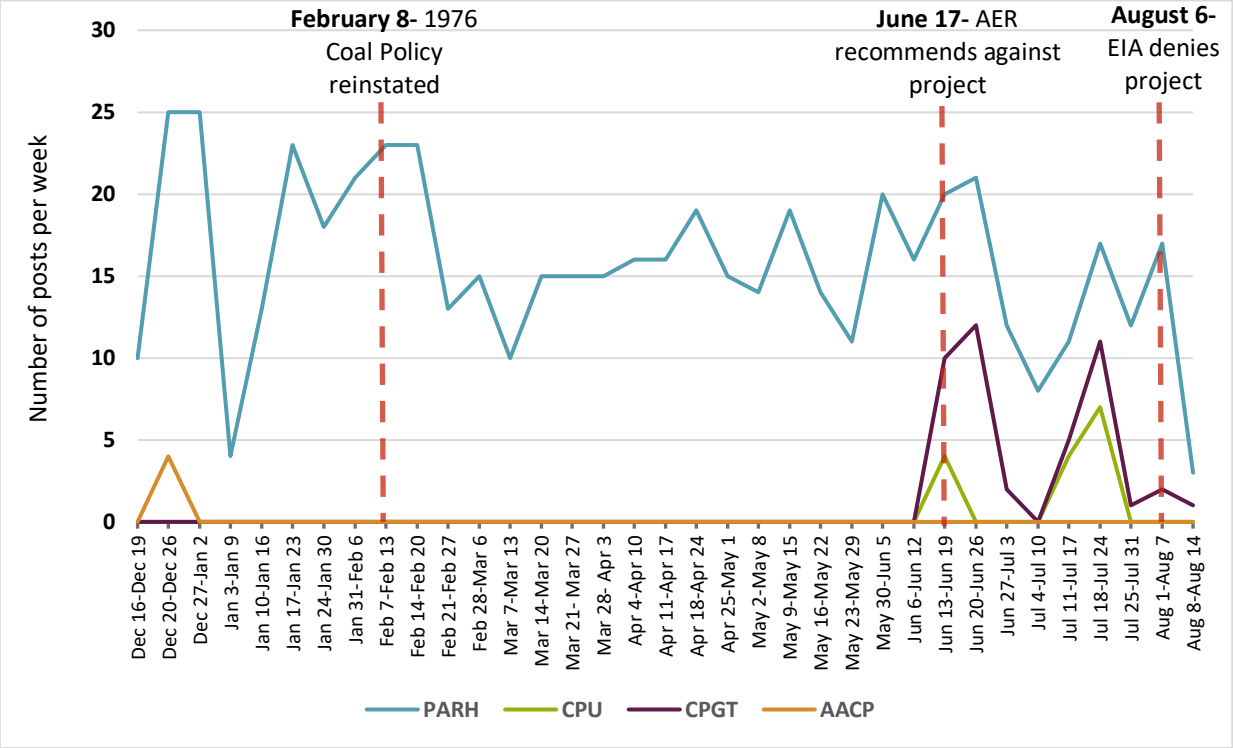


Figure 4.1. A timeline of posting activity from December 16, 2020 to August 14th, 2021. Colored lines show the number of posts collected each week for Protect Alberta's Rockies & Headwaters (PARH), Crowsnest Pass Uncensored (CPU), Crowsnest Pass Ghost Town. (CPGT), and Around and About Crowsnest Pass (AACP). Three major regulatory events are shown (red, dashed lines).

mine stance. The remaining two groups are specific to the Crowsnest Pass region but were not created as a space for the discussion of coal mining, which is partially reflected in the low number of posts meeting the researcher's search criteria (Table 4.1). This section covers general information on activity within these groups including posting activity time over the timeframe studied, the types of posts within the group, and post engagement.

An overview of activity levels in each group over time and in relation to key regulatory events that marked milestones in the project's downfall is shown in Figure 4.1 (the links between these governance actions and posting activity are further explored below). The AACP group only had one post, during the week of December 20th. Overall trends in the PARH group show fairly consistent

posting patterns throughout the timeframe examined, with an average of 16 posts per week and a slight decrease in posting frequency over time (overall, ~5 posts per week). The posting activity of the CPGT and CPU groups begins on the week of June 6th and remains active until the end of the time frame in question, with an average of 5 and 2.5 posts per week, respectively. When CPU, CPGT, and PARH are all active, the same trends within posting patterns can be observed across the three groups (Figure 4.1).

Generally, a spike in posting activity can be observed during three major policy decisions- the Government of Alberta reinstating the 1976 Coal Policy after strong pushback against its rescindment, the Alberta Energy Regulator (AER) recommending against the Grassy Mountain Project, and the Impact Assessment Agency officially denying the project on the federal level (Figure 4.1). During and around these events, the number of post spikes increased only slightly in comparison to overall posting activity in the PARH group. However, posting activity increased significantly in relation to overall activity in the CPU and CPGT groups from June 13th to June 26th. An increase can also be seen in the CPGT group the week of August 6th. Interestingly, a major spike in posting activity can also be seen on the week of July 18-24 in CPGT, CPU, and PARH but possible reasons behind this trend are not yet known. This increase is also slight in relation to other weeks in the PARH group, but constitutes one of the two major activity spikes in the CPGT and CPU groups. Finally, a drop in posting activity in the first two weeks of July is observed- possibly due to a combination of statutory holidays, the Calgary Stampede, and a major easing of Alberta's Covid restrictions on July 1st (Assaly, 2021).

Figure 4.2 shows a breakdown of the types of posts that were made across all four groups (see Appendix A for post types in specific groups). Text was the most popular choice for communicating, with 94% of the posts examined containing some textual content added by the user

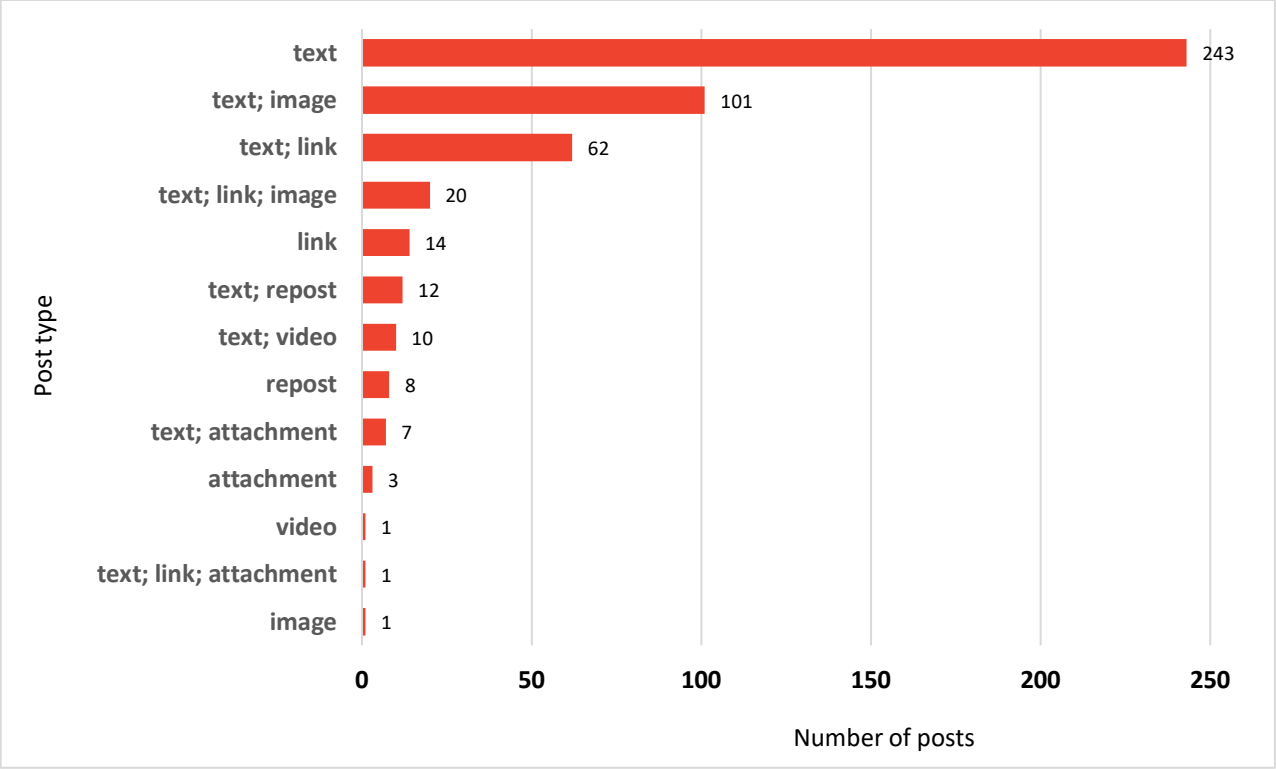


Figure 4.2. A count of post types across all groups (total 483). "Post type" refers to the general structure of a post and are the combination of six possible formats- text, link, image, attachment, video, and reposts. See Appendix C for term details.

and 50% of the posts containing only text. Text-based posts ranged from 3 to 1294 words and primarily used the English alphabet with occasional emojis. Most of the text seemed to be written directly by the user, with the remainder either pasted in from another source or presented as a quote from an individual who is not in the Facebook group. Without including the users that posted personalized versions of text-only content that was directly copy and pasted from other sources, 44% of content included some combination of text and another type of media (such as a photo+text or link+text combination). This is an excellent indicator of individuals customizing the content they post with messages that resonate with them, without fully creating their own content for posts. The ease of personalizing already existing content on social media is one of the characteristics Bennett and Segerberg highlighted in their theory of connective action (2012), as it allows individuals to

share their personal connection or views on a topic without needing to invest significant time or efforts into creating the primary content.

Images and links were the second most popular post types, making up 25% and 20% of all posts, respectively. Apart from text, links were the most frequently used standalone post type by a significant margin. This observation is most likely due to the structure of Facebook, as hyperlinks pasted into a post automatically get expanded into a cover image, the link title in large letters, and a preview of the content. This results in a complex presentation equivalent to posting an image and text, making it a lower-effort way for individuals to communicate a variety of information through one click.

Participation and interaction with posts (referred to as "post engagement") throughout the groups was defined as the total number of times the post was interacted with, i.e. the sum of likes, shares, and comments (Appendix A). As was discussed in Chapters 2 and 3, current definitions of online political participation have their limitations- the framework for identifying political participation used in this thesis is not perfect, but it allows for a relatively clear quantification of group member activity and a comparison across groups (van Deth, 2021, Ruess et al., 2021). Average engagement with various post types can be found in Figure 4.3 and a breakdown of average engagement across all four groups can be found in Figure 4.3. To ensure accuracy when comparing engagement across groups of different sizes, an average of the likes/comments/shares per post in each group is displayed.

Building upon the data presented in Figure 4.2, Figure 4.3 shows the relationship between post type and engagement across all groups. Page followers seem to interact the most with reposts (either via Facebook or other social media platforms) and posts that contain a combination of text and either video or images. However, text-based posts with a third element (such as text; link; image)

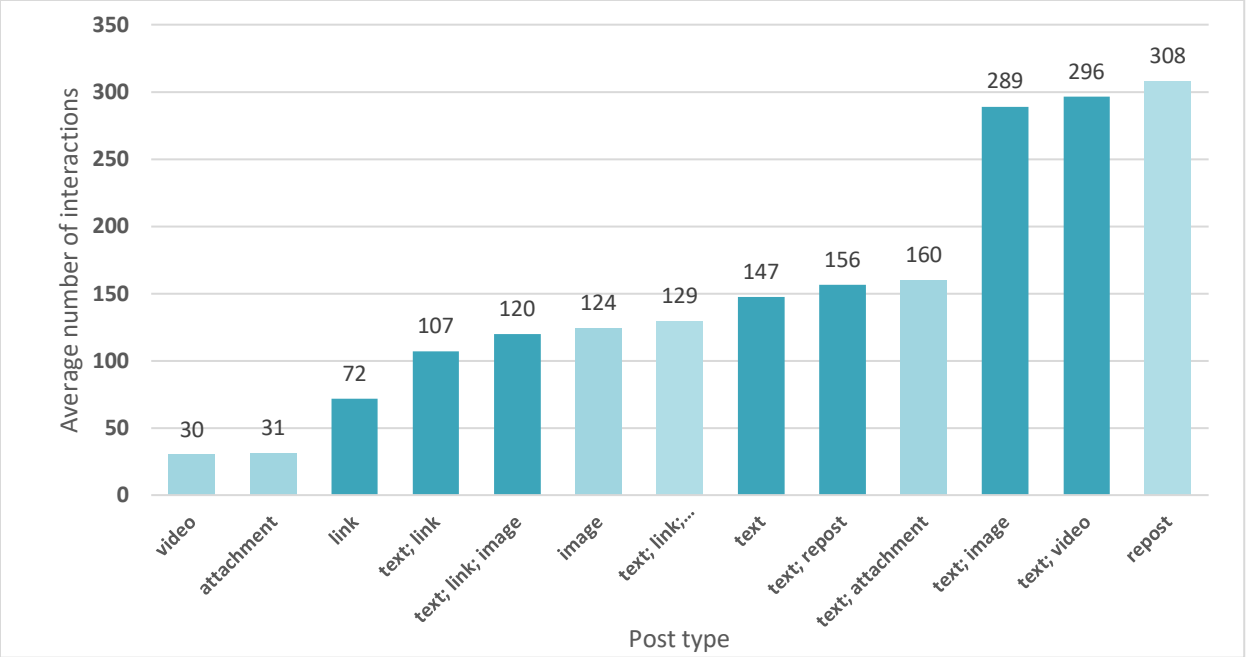


Figure 4.3. Average number of interactions for each post type throughout all groups. Lighter bars signify a sample size of <10. These values account for variation in the number of post types analyzed (shown in Figure 4.3).

or posts containing only text were not interacted with as intensely as those containing only two elements (Figure 4.3). Reposts were the exception to this observation. Since the 'repost' category refers solely to another social media user's content without specifying the type of post the original content is, it is difficult to determine the type of media a 'repost' constitutes and how this relates to interaction levels. Engagement with reposts is interesting to note but it is also difficult to draw conclusions based solely off of this dataset, as it only looks at engagement metrics from 8 reposts and further research would be needed to clarify trends in repost engagement. This also applies to a variety of other post categories which had a small sample size (denoted in Figure 4.3 as light blue bars). As well, it is important to note that the structure of a post is not the only determinant of its popularity. Though structural components make a post more noticeable or convenient to engage with, the content of the post cannot be dismissed. Exciting, catchy, interesting, or otherwise engaging post content has been shown to play a role in user's decisions to engage with a post or user

(Ackland & O'Neil, 2020). Section 4.4 takes a more qualitative approach to analysis through an exploration post content, including keywords and the themes individuals throughout groups posted about.

Another observation from Figure 4.3 is that any combination of post types containing links saw a low level of engagement relative to their non-link counterparts. For example, 'text; link; image' had an average of 120 interactions, whereas 'text; image' had an average of 289 interactions. Further, the 'text; link' post type had 107 interactions, while the 'text' post type had 147 interactions and the 'link' post type had only 72 interactions. This observation may be due to the additional commitment that interacting with a link entails. While posts with text or images allow for the content to be consumed in that moment, links require the user to leave the social media platform (whose structure is often designed to prevent this (Tufekci, 2018; Milan, 2015), navigate a new site, consume the content on that site (generally longer or more robust than a social media post), and then navigate back to the social media platform to engage by liking, sharing, or commenting. This process is both time and labour consuming when compared to simply liking a photo on Facebook while scrolling. Barriers to connectivity, such as slow or unreliable internet access, may also be an influence on how likely individuals are to interact external content, such as links.

When comparing user engagement to the post types shown in Figure 4.2, it is interesting to observe the discrepancy between what users post versus. what users interact with. As we saw in Figure 4.2, individuals were most likely to post text-based content with some combination of text, link, and image posts accounting for the majority of content posted on the pages. However, an examination of engagement shows that users are most likely to interact with other posts if they are in the form of a repost or contain text and images/videos, with links showing the biggest discrepancies in popularity between posting and engagement. There are a variety of possibilities that

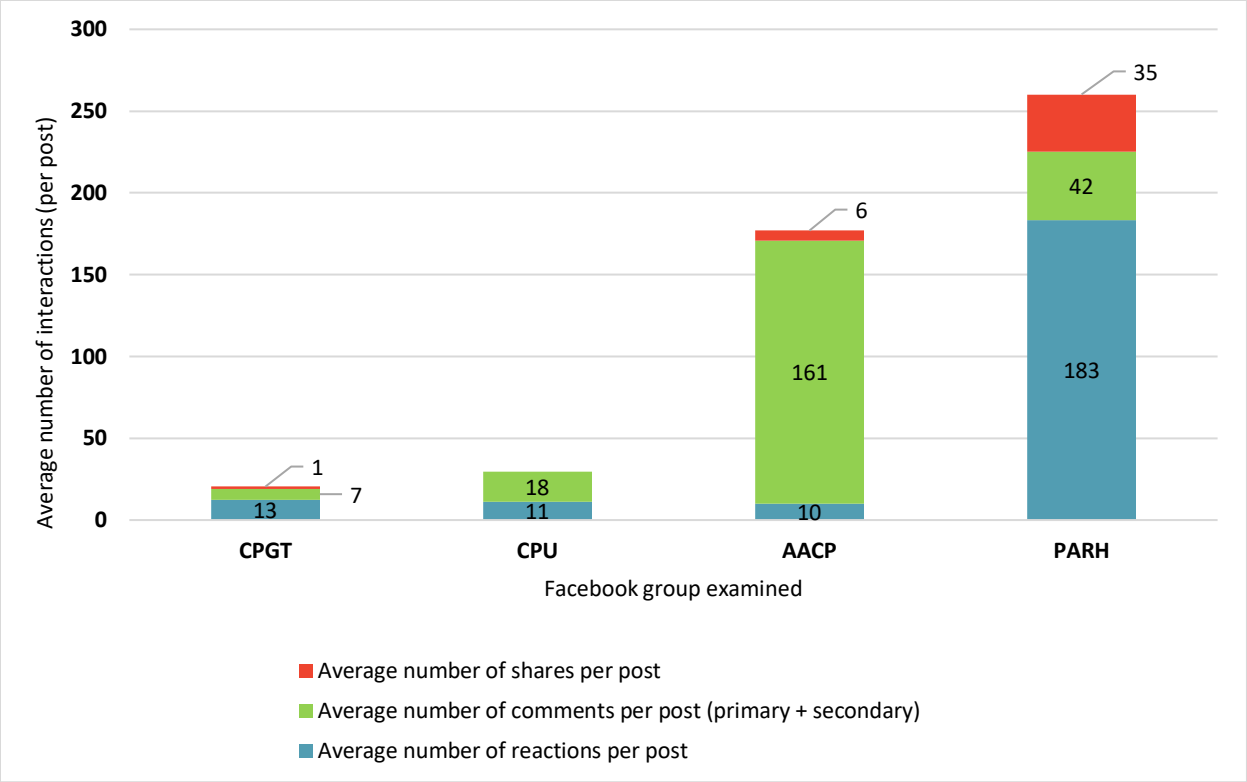


Figure 4.4. Engagement breakdown for posts analyzed within four Facebook groups- CPGT, CPU, AACP, and PARH. Engagement is calculated as a sum of the number of shares, comments, and reactions on the posts examined. For optimal comparison across groups of different sizes, the values shown are the average engagement for a post in each group.

may begin to explain these findings, such as the ease of posting a link (easy) versus the ease of accessing a link (hard, especially with poor connectivity). Reposts, videos, and images accompanied by text may also be more engaging to users they evoke an emotional response within the first few seconds of encountering them, as opposed to a block of text with requires more time and attention (Garcia et al., 2016). It is unsurprising that visual content may evoke more emotion and consequently increases users' desire to interact with the content, given that the combination of resource extraction in Alberta is highly linked to identity and that the subject of protest being a physical space that is often valued as beauty and status as 'pristine nature' (Castells, 2012; Adkin et al., 2017, Davidsen, 2016). This observation is discussed in greater depth in the chapters that follow.

A variety of post engagement patterns are observed across the groups examined (Figure 4.4). PARH, the group created specifically to advocate against the Grassy Mountain mining project due to environmental concerns, has the highest number of average interactions per post, a total of 260. About 70% of this total consists of reactions to posts, as opposed to comments or shares (16% and 14%, respectively). AACP has the second highest average interactions per post, a total of 177, with the majority of interactions coming from comments on the post (91%). A similar pattern can be observed in the CPU group which has a much lower number of average interactions per post, but is also dominated by comments as the primary method of engagement with posted content (62%). Finally, the CPGT group has the lowest post engagement of the four groups examined, with 21 average interactions per post of which 62% are reactions (Figure 4.4).

When post engagement is examined as an average per post as opposed to an absolute value, it is evident that the posting activity with regard to a specific topic is not proportional to the number of posts within a groups or posting frequency. The AACP group, for which only one post related to the Grassy Mountain Project was analyzed, had a much higher engagement rate than CPU or CPGT and was compared to the PARH group, for which 455 posts were examined. However, engagement with individual posts seems to, unsurprisingly, increase as the group following increases. It is interesting to note that post engagement in groups that are specifically dedicated to the topic of coal mining (CPGT and PARH) is primarily in the form of reactions to the post, as opposed to comments or shares (Figure 4.4). The groups that were not specifically established to discuss coal mining (CPU and AACP) had primarily comment-based engagement with posts on the topic of coal mining, with less reactions and shares on average (Figure 4.5). Under the assumption that comments signify discussion within the group, this observation ties into the idea that online spaces dedicated to a specific issue can often act as echo chambers where members will show high support for posts, but there is relatively low discussion on the matter. Though this is a trend observed within the data

collected and aligns with literature on the topic (c.f. Vitak et al., 2011; Greijdanus et al., 2020), it is worth noting that the sample size for both CPU and AACP were small in comparison to the other two groups and may not be the best representation of political discussion in non-political groups[14]. There is also a slight gap in the PARH comment data as there are no comments available from May 13-June 2, due to admin regulating comments perceived as going against group guidelines, meaning that in reality the ratio of comments to other engagement metrics may be slightly higher than the data shows. However, this accounts for less than 7% of all comment data from PARH and given that the average post engagement is presented, should not drastically affect the trends observed.

4.2 Structures and Processes Within a Social Movement

To learn about social movement processes in a digital space and what shapes them, Section 4.2.0 presents findings on structures, networks, and communication strategies. Across the four groups examined, PARH and CPGT were established with the intention of achieving political interests with regard to coal mining on the Eastern Slopes. PARH was established first to protest coal mining and less than a month later, CPGT was established to express support for the coal mines and voice discontent with anti-mining activism in the Crowsnest Pass. The type of content posted within the two groups are examined, including the type and structure of posts, as well as any external links. Then, the broader activism landscape regarding the Grassy Mountain Project is briefly explored.

A thematic analysis of the structure and intention of the posts on both PARH and CPGT were examined. The audience and intention(s) of posts in both groups were coded into seven main themes[15]- calls to action; informational; addressing the group; explicitly political content; letters and

[14] Groups not dedicated specifically to political topics or conversations.
[15] Note that these themes are *not* mutually exclusive. One post may fall into more than one category.

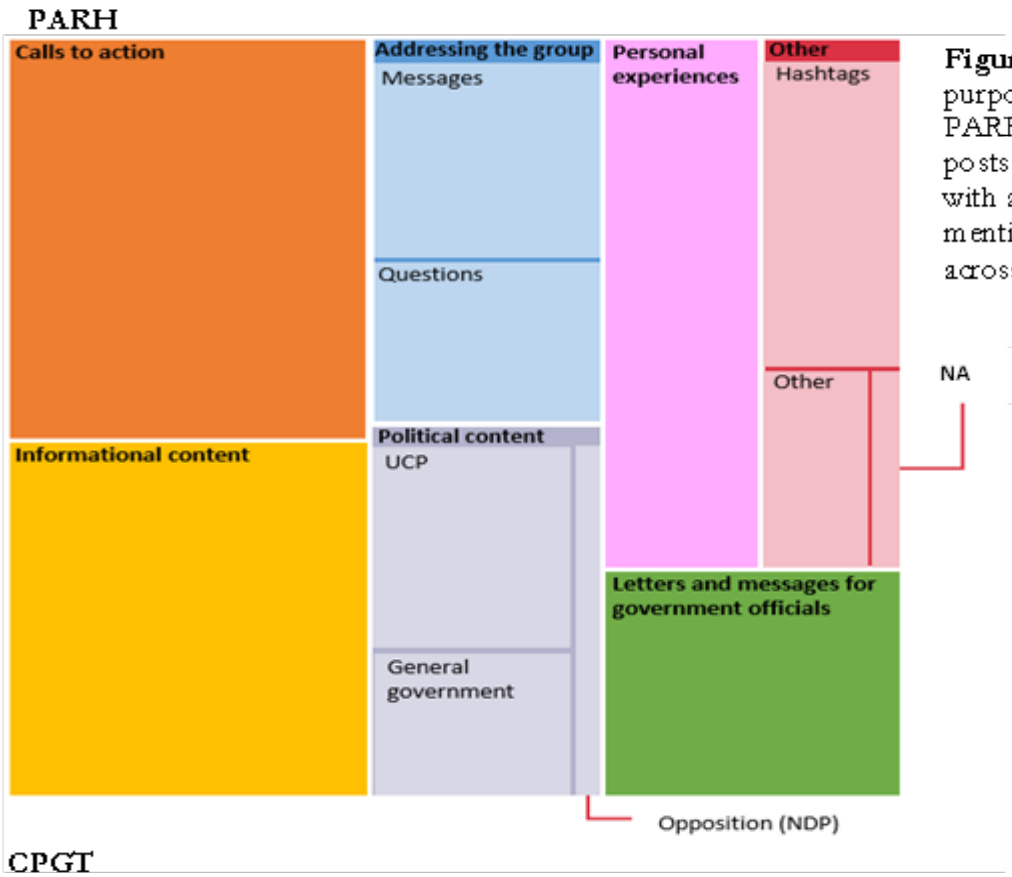


Figure 4.5a. Post purpose in the PARH group. 456 posts were coded, with a total of 698 mentions shown across all categories.

Figure 4.5b. Post purpose in the CPGT group. 24 posts were coded, with a total of 33 mentions shown across all categories.

messages; personal experiences; and other. All posts within the two groups fit within these seven themes, with seven subthemes emerging in the PARH group and four subthemes emerging in the CPGT group (Figure 4.5a and 4.5b). Both groups share the subtheme of posts with questions and messages for the group. In the PARH group, the 'explicitly political content' theme is further broken down into posts about the United Conservative Party of Alberta (UCP), government in general, and the Alberta New Democratic Party (NDP). The "other" theme includes hashtags, 'NA' (where posts did not include any text), and any other posts not fitting any other themes (Figure 4.5a and 4.5b). The 'letters and messages' theme in the PARH group defaulted to 'letters and messages for officials', as there were no other types of letters sent to external bodies. In the CPGT group, the only unique subtheme emerged from 'letters and messages for…', which included letters and messages to both government officials and Corb Lund, a local country musician who was publicly outspoken against the Grassy Mountain Project. Though no formal analysis was done on the frequency that individuals were active in the groups, it is worthwhile to note that the CPGT group had more reoccurring users (multiple posts from the same individual or individuals) than the PARH group. Based on observations made during data collection, at least half of the posts made on CPGT were made from one Facebook user.

In the PARH group, 40% of mentions fall into either the 'informational' or 'calls to action' themes. 'Calls to action' refer to any posts that are intended to prompt page followers to act on the issue with either specific action items, such as requests to write letters to MLAs, or less tangible calls to action, for example "Stop all exploration activity immediately. Period." (Protect Alberta's Rockies and Headwaters, May 28, 2021). 21.4% of coded PARH posts fell into this category (Figure 4.5a). The 'informational content' theme included any posts that are mean to educate or inform page followers, such as symptoms of selenium toxicity or the overall environmental impacts of mining. Posts reflecting these themes were coded solely because of their intention to communicate

information to inform their audiences, not based on accuracy or neutrality of the information (Figure 4.5a).

Table 4.2a. Codes, their counts, and an example for CPGT text analysis.

	Theme	Number of mentions	Description	Example (excerpt)
CPGT	Informational content	9	Any content designed to communicate informational material realted to the political aspects of activism (ex) coal mine), without addressing particular members or requiring an action. This information does not have to be correct to be assigned to this code, only intended to spread information.	Livingstone land owners did a study but as soon as their "supposed" scientists called Selenium a toxic pollutant it lost any credibility as a professional study. Selenium is a naturally occurring element essential for life.
	Personal experience	5	Any posts telling a first-hand story of an experience that occurred to the user	I was one of the 140 people that lost our jobs suddenly march 1st when I found out via a youtube video that they stopped all exploration and I had to call the 2 guys i had coming to work and say sorry. No more job.
	Addressing the group: messages	7	Any messages addressed to group members that do not fit into the "calls to action" or "informational content" category. This code generally consists of general opinions on the group made by users or 'housekeeping' information from the group administrators.	Thanks for stopping by 🙂
	Addressing the group: questions	1	Any questions posted to the group that require a response (not rhetorical)	Which businesses in town support the coal mines[?]
	Calls to action	4	Messages explicitly asking for political action or show of support for the cause from group members.	We need more people to voice their personal impacts, you do not need to go in depth as I did but any words expressing the shock of rejection of a mine in a mining community needs to be heard!
	Explicitly political content	1	Any content that is specifically making a political statement or expressing views related to specific figures or political entities. Letters & messages addressed to political figures do not fall into this category.	The current Liberal Government intends to "end all thermal coal mines"... by 2035.
	Other	1	All other posts not fitting a category	Corb Lunds cows.
	Letters and messages for:	5	Any formal letters or social media messages mailed to or posted on the pages of various individuals. Sub-categories contain information on Corb Lund or general government	Dear Honourable Sonya Savage, My name is [name], I had moved to Alberta recently from Saskatchewan to pursue a career as a Geologist to work in the Metallurgical Coal Industry of Southern Alberta. ...

'Addressing the group', 'political content, and 'personal experiences' were the next most common themes, cumulatively accounting for 38% of posts coded. The 'addressing the group' code was split fairly evenly between questions for the group, such as "Are there any other hash tags you want?" (Protect Alberta's Rockies and Headwaters, January 13, 2021) and comments specifically addressing the group, for example "Thanks for listening. Thanks for standing up and using your voices!" (Protect Alberta's Rockies and Headwaters, July 16, 2021). The 'political content' theme

Table 4.2b. Codes, their counts, and an example for PARH text analysis.

	Theme	Number of mentions	Description	Example (excerpt)
PARH	Calls to action	150	Messages explicitly asking for political action or show of support for the cause from group members.	You are in the position to make a stand, make a difference, don't make the mistake of ignorance and allow these mines to happen.
	Informational content	134	Any content designed to communicate informational material realted to the political aspects of activism (ex) coal mine), without addressing particular members or requiring an action. This information does not have to be correct to be assigned to this code, only intended to spread information.	With the development of roadways, clear cutting trees, increased industrial traffic, loss of native grasses and then the air and water pollution that will follow with open pit coal mining we add the wild horses to the list of species that will be negatively effected.
	Addressing the group: messages	52	Any messages addressed to group members that do not fit into the "calls to action" or "informational content" category. This code generally consists of general opinions on the group made by users or 'housekeeping' information from the group administrators.	I want to say I admire everyone in this group who is taking time out of their lives to oppose this. I wish we didn't have to!
	Addressing the group: questions	40	Any questions posted to the group that require a response (not rhetorical)	Are there any avenues worth pursuing to inform Australian citizens about what is going on here in Southern Alberta?
	Explicitly political content	89	Any content that is specifically making a political statement or expressing views related to specific figures or political entities. Letters & messages addressed to political figures do not fall into this category. Sub-categories contain information on the UCP, opposition party (NDP), or general government (such as statements on specific policies or departments)	There is a long fight ahead against a government that is unwilling or unable to see past their own ideologies.
	Other-hashtags	49	All hashtags	#MountainsNotMines
	Other- NA	24	Posts that had no text.	NA
	Letters and messages for:	69	Any formal letters or social media messages mailed to or posted on the pages of various individuals. This was primarily letter writing templates or campaigns.	Below is an open letter I've drafted, but unfortunately I have no idea as to the best recipient, if you feel this is useful, and applies any level of credence to the situation, please forward to the relevant authorities.
	Personal experience	84	Any posts telling a first-hand story of an experience that occurred to the user	I am in my 60's now and can truly say I am not an "activist" but this is a topic that will make me take up my markers or paint, make a sign and join protesters that are trying to defend and protect our Eastern Slopes, our watershed, our environment and our health.

included posts regarding the government as a whole, the United Conservative Party (UCP) specifically (this includes any mentions of political figures within the party, such as Jason Kenney or Sonia Savage), and one mention of the opposing New Democratic Party (NDP). Over half of the posts coded to this category fell into the 'UCP' subcategory and had a strong negative sentiment. The 'personal experience' theme contained first-hand accounts or personal stories, such as a post on growing up in a coal-based economy (Figure 4.5a).

Finally, around 10% of posts contained letters or messages to officials (Figure 4.5a). This theme consisted of either letters mailed or emailed to government officials and their responses, or

posts that specifically addressed officials, often by using the tag function of the platform that gives the user or page tagged a notification and access to the post they were tagged in. The latter approach is especially interesting, as it relies solely on a social media platform to convey a very public message. This seems comparable to challenging the individual or actively starting a conversation in a public space, as opposed to the more passive approach of users posting letters and their responses (Edirisinghe, 2011; Elder, 2020). These are useful in giving PARH followers a recap of the conversation the user had, but do not allow for real-time deliberation with the person being questioned. To note, none of the political figures tagged or mentioned in the posts analyzed provided a response or otherwise engaged via Facebook.

In the CPGT group, 52% of mentions fall into either the 'informational content' or 'addressing the group' categories (Figure 4.5b). With 27% mentions, 'informational content' was the most prevalent theme in the CPGT group and focused primarily on providing information on the economical impacts of mining or providing information to counter claims made by a variety of pro-mining groups. 'Addressing the group' was broken down into two sub-themes which were consistent with sub-themes in PARH, 'questions' and 'messages". Seven of the nine mentions coded to this theme addressed the group, as opposed to asking the group questions, with admin often providing updates on activity regarding both pro- and anti- coal mining activism.

The next most frequent themes accounted for 42% of all mentions and included 'personal experiences' (5 mentions), 'letters and messages for…' (5 mentions), and 'calls to action' (4 mentions). 'Personal experiences' accounted for 15% of mentions and generally focused on stories of the importance of coal-mining industry for both individuals and historically in the Crowsnest Pass region or first-hand accounts of interactions with members of anti-mining groups. The latter is especially interesting, as posts falling into this theme often contained screenshots or copied text

Figure 4.6. A word cloud visualizing the hashtags used in the PARH group. Size of the word is proportional to the number of times the word was used, with larger words signifying more uses**.**

from conversations which were deleted or banned from the groups they were posted on, most often the PARH group. This type of post was rarely, if ever, seen in the PARH group. 'Letters and messages for…' consisted of two subcategories in the CPGT group- messages for Corb Lund [16] (60%) and messages for government officials (40%). Messages for Corb Lund included only posts on both his personal social media page and CPGT, with a primarily negative sentiment reflected in the posts coded to this category, such as "…Corb lobbied to kill any prospect for jobs and prosperity for the Piikani [N]ation so his rich ranch friends can continue to graze on traditional [F]irst [N]ations land." (Crowsnest Pass. Ghost Town, 2021). Unlike the PARH group, "calls to action" was not a major theme within the CPGT group, with only 12% of mentions coded as such (Figure 4.5b). Finally, only two mentions (6%) corresponded with the 'political content' and 'other' themes. Unlike PARH, posts containing explicitly political content were not common in the CPGT group and the only post falling into the 'political content' category was specifically regarding the

[16] Corb Lund, a local country musician who was publicly outspoken against the Grassy Mountain Project

Liberal government (Figure 4.5b). This differs from the PARH group, which primarily consisted of political posts regarding the UCP and to a lesser extent, the government as a whole.

Hashtags were used fairly sparingly on the PARH page (7% of the coded content containing a unique hashtag) and were not used at all on the CPGT page. Figure 4.6 shows a word cloud with the hashtags used in the PARH group. Hashtags are a common strategy in online social movements as they provide a structure that allows for increased visibility and access to a collection of posts on a specific topic (Halpern et al., 2017; Faure & Beltran, 2021). This is especially useful on social media platforms with a high content turnover that lack the built-in features that allow for formal organization, such as Twitter or Instagram. Hashtags are ultimately a grassroots approach to carving out space for a social movement in the online sphere and identify a social movement across multiple social networks (Bennett & Segerberg, 2012; Milan, 2015; Tufekci, 2018). Facebook has a relatively organized structure, meaning that the platform contains a variety of

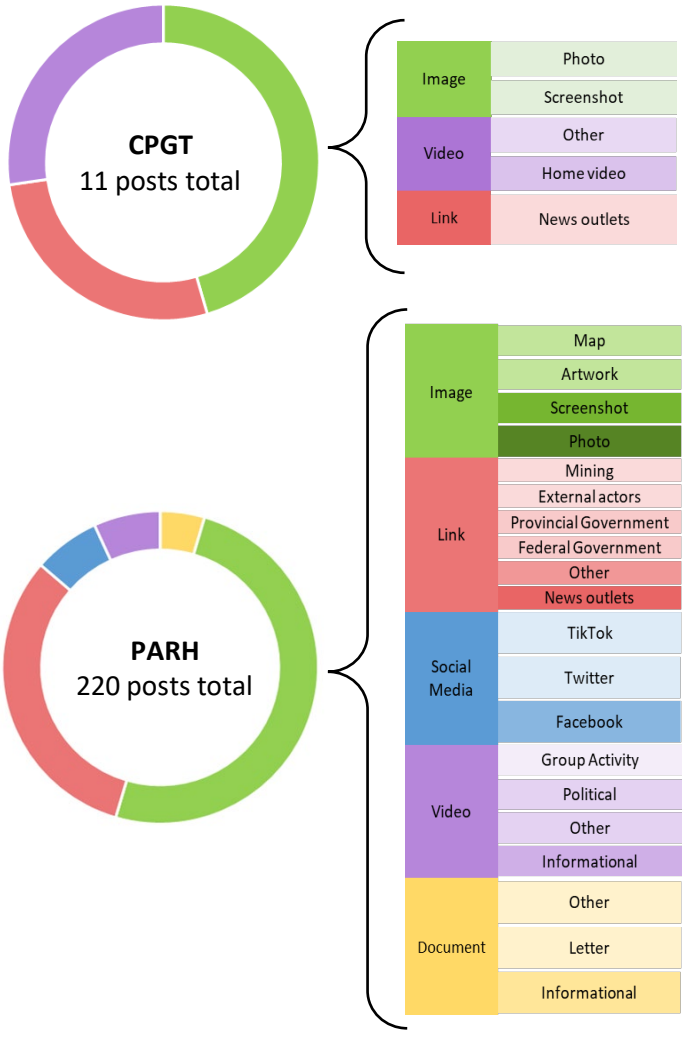


Figure 4.7. Embedded content in the PARH and CPGT groups. The doughnut graphs show the types of embedded content on posts within each group, with the tables showing the sub-types of embedded content. Colours correspond to categories, with subtypes of a lighter shade denoting a lower frequency and darker shades denoting a higher frequency, distributed on a scale from 1 (min) to 62 (max).

distinct, built-in features (such as Groups or Events) that have benefits similar to hashtags. This aligns with the observation that less than 10% of the Facebook group content examined contains hashtags. However, it is also interesting to note that hashtags are not entirely obsolete in the PARH group and there is unity in which hashtags are used, including the consistent use of #mountainsnotmines and #waternotcoal (Figure 4.6). The use of hashtags in a space where there is little structural value for their use shows the level of integration between different platforms and offer a glimpse of the larger activism network. This observation also touches on the relationship between the user and the platform, specifically the extent to which the structure of a platform shapes user behaviour while accommodating overlaps between networks and allowing the user to make space within these pre-set structures (cf. Milan, 2015; Mosquera et al., 2020).

As was briefly discussed in Section 4.1.0, over half of the posts in PARH and CPGT posts contained some form of embedded content (Figure 4.2). Embedded content refers to any non-text additions to a post that either internal (within the group's page) or external (leads to an external source away from the group). In data extracted from PARH and CPGT, internal content was considered to be images, videos, and attachments uploaded through Facebook, and GIFs. External content was reposts and links to either websites, documents, or videos. To provide further insight into the types of content within posts, embedded content was sorted into subtypes. Figure 4.7 shows the types of embedded content present in each group along with their respective subtypes and the frequency at which they occur.

The PARH group had a total of 171 posts with embedded content, spanning five main categories and 20 subcategories. The two most common types of embedded content were images (50% of embedded content) and links (32% of embedded content). Within the image category, 56% of content was photos, 26% was screenshots, and the remaining posts included maps and artwork.

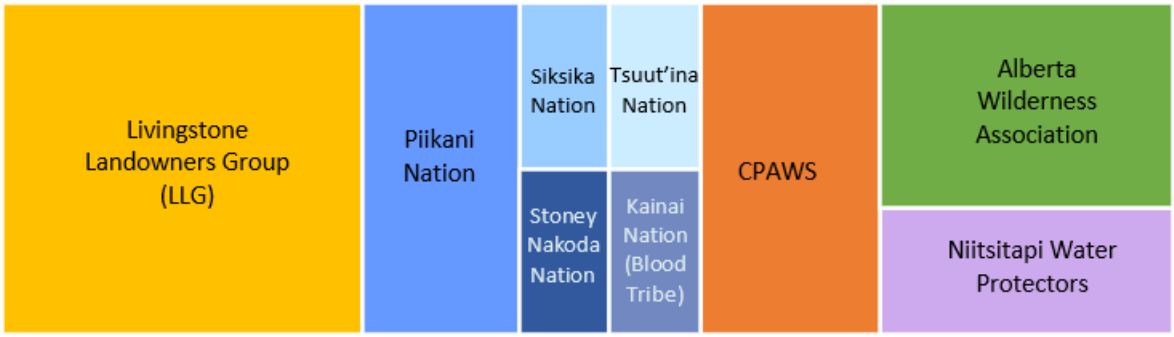


Figure 4.8. References to external organizations. 54 posts and comments were coded (out of a total of 2241). Search words shown in the boxes were used, with parentheses denoting more than one key phrase used in the search.

Links were also a popular type of embedded content and led to a variety of external sites including government websites, mining company sites, other anti-mining actors, and news outlets. From the links posted, 44% of them led to various forms of related news websites such as the Lethbridge Sun, Calgary Herald, or CBC, that offered updates on events surrounding the proposed Grassy Mountain mine. Nearly another quarter of links (23%) linked directly to one of two Government Canada sites- a petition against the Grassy Mountain mine or the Environmental Impact Agency's page containing information and documents on the proposed project. Within links, the 'other' subcategory contained an assortment of links including political cartoons and personal business websites. Other popular subcategories within the remaining categories included Facebook reposts, as well as informational videos and documents (Figure 4.7).

The CPGT group contained a total of 11 posts with embedded content, which spanned three main categories- images, videos, and links (Figure 4.7). Images were the most common form of embedded content within CPGT, with the 'photo' and 'screenshot' as subcategories. These were also the most popular image choices in PARH as well. A unique subcategory titled 'home video' emerged as a form of embedded content that consisted of videos often taken directly by the user to document some aspect of their life or experiences. This is interesting to note with regard to Figure 4.5b showing 'personal experience' as a theme in CPGT posts, as the presence of home videos is

consistent with the observation that more of the CPGT content is centered around personal experiences as opposed to large scale, societal issues.

Another finding that emerged from the social media data examined is the existence of a larger activism network related to the Grassy Mountain mining project beyond the PARH and CPGT groups. The PARH group members specifically mentioned multiple external actors, with a variety of posts made by organizations promoting action and events via the Facebook group (Figure 4.8). 2241 posts and their comments were examined in this analysis, with 54 of them containing content related to external actors. Organizations or collectives frequently mentioned are groups advocating against the mine, including the Niitsitapi Water Protectors, Livingstone Landowners Group (LLG), Alberta Wilderness Association, and CPAWS. References to these organizations were generally either posted by the actor to share their activity or thoughts on the topic or by group members discussing their activity. Various activity regarding the mine by the Kainai (Blood Tribe), Siksika, Stoney Nakoda, Tsuut'ina, and Piikani Nations was also referred to on the page, denoted in Figure 4.9 as blue boxes. These Nations were generally referred to across a wide range of contexts, however, the official stances of the Nations varied[17]. Mentions were also made to a Go Fund Me page which was established to raise funds for group activities such as sign-making. To note- a variety of embedded content also referred to external actors through the use of non-text-based content such as links (see Figure 4.7) or screenshots that are not fully accounted for in this analysis.

In the CPGT group the Livingstone Landowners Group (2), CPAWS (1), Niitsitapi Water Protectors (1), and the Piikani Nation (2) were mentioned within posts and comments. The context

[17] It is crucial to note that there is great complexity in the stances various Indigenous groups took on the Grassy Mountain mining project, both officially and unofficially. To do this topic justice given my current research design, a thorough exploration of this topic would move this work far beyond a Master's thesis. However, this would be a valuable topic for future research.

in which these organizations or groups were mentioned differed from PARH, as posts and comments were primarily critical of the external actors and used the CPGT page as a platform to vocalize disagreement. One exception is references to Indigenous groups, which were neutral and only mentioned within the context of consultations regarding the project or potential harm that might come as a result of the mine closing, not as an autonomous external actor.

4.3 Conclusion

The Chapter 4 analysis of general group dynamics sheds light on the varying levels of activity and perspectives within the Facebook communities examined. The emergence of PARH (Protect Alberta's Rockies and Headwaters) as the first group in response to the Grassy Mountain mining project resulted in a rapid increase in its following. CPGT (Crowsnest Pass. Ghost Town) can be seen as a countermovement to the more mainstream PARH group, established about a month later. CPGT often directed criticism towards anti-coal activists and openly expressed discontent with posts and users in the PARH group. In contrast, PARH focused more on direct calls to action and political content, while CPGT placed a higher emphasis on personal experiences, as evident in Figure 4.5b and 4.7. Both groups shared a variety of informational content. The breakdown of comments and posts across groups revealed that the engagement related to the Grassy Mountain Project was not necessarily proportional to the number of followers a group had. This is evident in the cases of AACP (Around and About Crowsnest Pass) and CPU (Crowsnest Pass Uncensored), which, despite having significant followings, had minimal posts meeting the search criteria. It is important to note that neither AACP nor CPU were specifically dedicated to discussing coal mining in Alberta, as indicated in Table 4.1.

Political and regulatory decisions, particularly those related to coal mining on the Eastern Slopes, also impacted posting patterns. For instance, the reinstatement of the 1976 Coal

Development Policy on February 18 triggered notable shifts in group activity. Internal group dynamics were also influential, as the groups demonstrated awareness of each other's existence and occasionally made references to one another. Posting spikes in groups like CPGT or CPU could potentially be responses to increased activity within the PARH group, indicating a level of intergroup influence. These observations highlight the interplay between external events, political decisions, and internal dynamics in shaping the posting trends across the examined Facebook groups. Understanding these factors can provide valuable insights into the dynamics of online communities and their responses to various stimuli, contributing to a more comprehensive understanding of digital activism and social media engagement. Furthermore, the analysis highlights a larger network of organizations within the PARH movement, indicating the presence of connective action among various groups working towards the same cause. This networked approach allows for a broader reach and amplification of messages.

One interesting aspect of this analysis is where blame for the perceived issues is placed within each group. CPGT had minimal posts explicitly conveying political content, but anti-coal activists and Corb Lund were often singled out as the problem. On the other hand, the PARH group predominantly discussed and assigned blame to coal mining companies and the UCP, highlighting concerns of corporate greed and political corruption. Interestingly, a secondary sentiment of discontent and distrust towards the federal government was present in both CPGT and PARH, which has also been reflected in the works of Suhay and their colleagues (2022). These observations underscore the diversity of perspectives and narratives within the Facebook groups, reflecting the complex dynamics of the Grassy Mountain Project and the broader discourse on coal mining in Alberta. Furthermore, the analysis highlights a larger network of organizations within the PARH movement, indicating the presence of connective action among various groups working towards the same cause. This networked approach allows for a broader reach and amplification of messages.

These findings align with the concepts of "cloud networking" proposed by Milan (2015) and at its foundation, "connective action" as discussed by Bennett and Segerberg (2012). The prevalence of customized content on Facebook, with text being the most common type of post and users frequently reposting content, supports the idea that content personalization is a key element of online social movements. To some extent, users also used hashtags to personalize content and though likely don't serve the same structural purpose on Facebook as they do on platforms like Instagram or Twitter, they were used by group members as a means of displaying support and solidarity (Bennett & Segerberg, 2012; Halpern et al., 2017, Xu et al., 2021). Chapter 5 builds upon this discussion, using participant interviews to examine personal accounts of interacting and creating personalized content.

Another set of key findings within Chapter 4 suggest that structure of Facebook itself plays a significant role in shaping user behavior and interactions. Links are less popular compared to other forms of content, likely due to the additional effort required for meaningful engagement with external sources. This aligns with the design of ad-based social media platforms with commercial interests, including Facebook, that retain users within the platform and encourage continuous scrolling. As a result, posting links to other content is a more convenient and less time-consuming option for users. These insights into the structure and dynamics of Facebook highlight the influence it has on user behavior and how people engage with content,. Understanding these patterns is essential for comprehending the impact of social media platforms on information dissemination, activism, and public discourse.

Selective participation and the phenomenon of social media echo chambers are evident in the examined groups. Groups specifically dedicated to the issue of coal mining, namely PARH and CPGT, exhibited more 'likes' and 'shares' of posts compared to comments. This suggests that while

there is a general agreement with the content shared in these groups, there is relatively less active discussion occurring on the topic of coal mining. This finding aligns with existing literature on online political discussion, which highlights the tendency for like-minded individuals to reinforce their beliefs without engaging in substantial dialogue (Heyman & Pierson, 2015). AACP, a community group for the Crowsnest Pass area and CPU, a community page emphasizing freedom of expression, offer contrasting examples. AACP's strict rules against unrelated, political, or negative content resulted in the deletion of posts and the banning of users who violated these guidelines. Consequently, only one post discussing the Grassy Mountain Project was retained in the group. In response, CPU was created as an alternative space where "anything goes" (Table 4.1) and censorship was no longer an issue. However, despite its more permissive environment, CPU did not become a central hub for protest or discussion on coal mining. Instead, the group primarily focused on Covid-19-related content. Furthermore, the observations regarding PARH and CPGT indicate the potential formation of echo chambers within the Facebook groups. On PARH, comments opposing the group's beliefs were deleted by the admin under the premise of violating community guidelines. However, the data presented in Figure 4.5a suggests a significant proportion of posts consisting of 'political content', with over half specifically targeting the UCP and reflecting a strongly negative sentiment. Interestingly, certain comments and posts that could be considered unkind towards pro-coal actors were not deleted, despite going against the stated community guidelines. The existence of censorship and the removal of posts from pro-coal advocates created conflict within the groups and prompted the establishment of alternative platforms such as CPU and CPGT in response to perceived censoring activities.

These dynamics also raise intriguing questions about the context of Covid-19 and its potential influence on concerns about control and freedom of speech. The observed conflicts within online spaces shed light on the processes and factors that contribute to individuals seeking niche

environments where they feel they can freely express their opinions, and how the online space in which occurs directly or indirectly facilitates these effects. Through in-depth participant interviews, Chapter 5 further explores some of these key themes including types of engagement, the greater activist network, the politics of Facebook as a platform, and how Covid-19 shaped all of these elements.

Chapter 5: Interview Findings

To further supplement social media analysis findings and provide deeper insight into the quantitative data discussed in Chapter 4, this Chapter presents the perspectives of individuals that participated in online political activism regarding the Grassy Mountain Mining Project throughout the Covid-19 pandemic. The interviews conducted paint a contentious story set in contentious times. First, the personal experiences of participants are examined, from motivations behind their involvement to the perceived impact of online activism. Larger processes within mobilizing an online political movement are then discussed, with a focus on both internal and external network building. The latter half of this Chapter focuses on two themes which emerged primarily through interviews with participants: the impacts of the Facebook platform structure on online activism, and the impacts of the Covid-19 pandemic on user's interaction with political settings in the online sphere.

Social media users who posted on at least one of the four Facebook groups in the social media analysis were invited to participate in semi-structured interviews conducted via WebEx, which were then analyzed through a thematic analysis. The goal was to obtain six interviews split across the four groups in proportion to their following. Unfortunately, not all group admin responded to the interview request and as a result, only four interview participants were recruited. As such, not all groups are represented proportional to their sizes. Due to the relatively small number of active posters in the groups, group affiliations are excluded from this analysis to preserve the anonymity of participants (refer to Chapter 3 for more information regarding methods).

5.1 Individuals as the Unit of a Social Movement

People across Alberta used online platforms to advocate for their political interests regarding the Grassy Mountain Project. In the interviews conducted, the locations of participants spanned both rural and urban regions across the province. When the 1976 Coal Policy, which designated various levels of protection against strip mining in Alberta's sensitive ecological areas, got rescinded by the UCP in late May 2020, the decision got coverage through both traditional and non-traditional forms of media (news outlets and social media, respectively). Of the interview participants, equal numbers remember first hearing of the Grassy Mountain Mining Project through traditional media outlets, such as the CBC, and social media platforms. And all but one interview participant specifically became interested in the issue due to the 1976 Coal Policy being rescinded, with the final interview participant not specifying their motivation behind first encountering the project. However, participants first encountered the Facebook group in which they participated through either friend's social media channels, in a general internet search hoping to gain more information about the project, or through direct conversation (either online or through a phone call) with other people. This section first explores interviewees' motivations for both following the group and for sharing political content. This is followed by an exploration of interview participants' thoughts on the perceived impact of their political actions regarding the Grassy Mountain mine policy decision and expected involvement moving forward.

Figure 5.1. A word cloud created from interview data showing the most used words across all participants. The size of each term is proportional to the number of times it was mentioned. Font colour was assigned arbitrarily and does not represent any findings.

Finally, this section concludes with the personal benefits and drawbacks participants feel they gained through their time engaging with this movement.

5.1.1 Motivations for participating

When asked about their personal experiences and motivations behind posting political content regarding the Grassy Mountain Mining Project, participants described a complex picture of their online activity. This included conversations describing an emotional connection to the issue, dissatisfaction with both federal and provincial governing bodies, and a desire to both obtain and generate accurate information about the topic. Participant responses regarding their motivation for both following and participating in a Facebook group regarding the project were relatively consistent between users, generally falling into a combination of the factors listed above.

All interview participants voiced feelings of a personal and emotional connection to the cause or the space itself as a primary reason behind following one of the four Facebook pages discussed in this thesis. The role and value of the physical region in identity-building is at the center of advocacy efforts related to the Grassy Mountain mining project. Speaker 1 describes feeling motivated to follow the page to advocate for the issue;

> "…we see ourselves in the Eastern Slopes… that's the way we see ourselves in Alberta. This landscape…mountainous foothills, you know gently grading into the prairies is, it's kind of caught up in our identity." (Speaker 1)

Personal identity as a motivating factor for following Facebook pages regarding the Grassy Mountain Mining project is present both directly and indirectly in the above quote. Speaker 1 describes how the unique landscape of Alberta is part of not only their identity but is the basis of a collective identity within the province, described through language such as "we see ourselves" or "our identity" (Speaker 1). A similar sentiment with regards to personal identity built upon an

emotional connection to the physical space is expressed by Speaker 3 when asked about their motivations for participating in the movement;

> "[M]y province is really beautiful, and I just refer to it as my province cause this is where I grew up. I mean, I grew up, I spent my whole entire life here… There is nowhere in the world that is like Alberta. It is one of, it is one of its kind." (Speaker 3)

Again, a sense of identity for Speaker 3 is rooted in the physical space that is the province of Alberta, evident from the use of the language "my province", that within the context of the interview implied not ownership, but instead a sense of responsibility and kinship. Speaker 3 also captures the ability of the conceptualization of spaces to hold meaning free of time, through the speaker's clarification of their language in the possessive form (i.e. "my") to capture a lifetime worth of assigning meaning to those spaces. This links directly to Soja's work and the idea that the conceptualization of any given space is constantly deconstructed and reconstructed across time, as the meaning it holds to individuals and collectives is enacted (Gamson, 1990; Soja, 1998). Sharing experiences such as the ones of Speakers 1 and 3 captured above, in this instance through conversation in interviews and online posts, exemplify the enactment of meaning that the physical space of Grassy Mountain and the eastern slopes holds for these individuals.

Across all interviews, the motivations for following social media with the intention of protecting political interests is framed as synonymous to protecting the collective identity they have built upon the space they inhabit. This observation also provides further insight into the social media analysis presented in Chapter 4[18], where posts that received the most interactions from users were ones that contained both user-created text and some form of visual, such as a landscape photo. Interview findings regarding the strong connection and value participants put in the physical space aligns with the postulations that visual content where the user can directly see the physical space

[18] Refer to Section 4.1 and Figure 4.4 for further detail.

under discussion evokes a greater emotional response and inspires action (Bowler et al., 2010; Xu et al., 2021). Access to information regarding the project was also a factor that played into participant's motivations to follow the group and ties into previous reports of coming across the Facebook group in hopes of learning more about the project. Participants also reported that following the group provided them with reliable and up to date information and updates on the project. Simply put,

> "Policy was still being looked at, changes were still being made and you could find out about it from the comfort of your home." (Speaker 4)

Generally, participants reported feeling a lack of trust in decision-makers and often, the sources of information provided by mainstream media, such as news outlets. Speaker 1 and Speaker 3 share their motivations for following the group(s);

> "I felt that [the Facebook group] actually, it has helped me understand what exactly was going on … I find sometimes with, uh, the mainstream media and even in, local media that it can be hard to find certain things unless you're actively looking for it. This actually helps streamline the information for me." (Speaker 3)

> "That was the draw that brought all these groups together and made so many people interested in this site. They were also looking for, for a source of information. You could get good information." (Speaker 1)

Speaker 3, who took a more passive role in their group in comparison to other participants, describes the value of this group in consolidating and verifying the information posted in the group. The idea of using social media posts to verify that the information is reliable may seem counterintuitive as not all things presented as facts on social media are true. However, given that the users within the group can comment and/or react to posts, this serves as an informal mass review of the content posted. This is described by Bennett and Segerberg (2012) as the ability for users to indirectly influence the visibility of a post through an informal "vote" of giving the content either a positive reaction or a negative reaction. Speaker 1 also echoes the view that these groups were valuable in so-called "good information" and beyond this, believes that it was the search for information on the subject that inspired people to join that group. The latter observation is also

consistent with various literature on online political participation, which suggests that passive attention to political content, such as reading news articles, is closely linked to information dissemination action and it the more passive levels of involvement that are commonly the beginnings of individual involvement (Cantijoch et al., 2016; Boulianne, 2019).

When asked specifically about what motivated participants to actively engage[19] in posting content related to the Grassy Mountain Mining project, the responses differed slightly from interviewees' motivations to just follow the group. Most participants felt that they needed to contribute accurate information to the group they posted in and battle perceived misinformation either in mainstream media, across other groups (pro vs anti coal mining), and/or internally within the group they were participating in. Speaker 2 describes their motivations stemming from the desire to "help making sure some of the people I knew were aware of the issue." (Speaker 2). The idea of battling misinformation is also exemplified in Speaker 1's account of an instance where information perceived as false was posted online and "you'd see everybody [group members] pick apart their ridiculous fallacious arguments" (Speaker 1). This is closely linked to another motivator for political participation- holding governing bodies accountable for their decisions and the ability to publicly express discontent with both the actions and views of political figures via public social media pages related to the issue and the official Facebook or Twitter pages of governing officials. (Casero-Ripolles & Pepe-Oliva; 2022).

5.1.2 Perceived impact of activist actions

During the discussion of personal experiences as a participant within one of the four groups, the interviewees were asked to reflect on how their motivations evolved in the past year and a half.

[19] As opposed to passive forms of engagement, such as reading articles without posting.

Perceptions on the overall impact of online activism varied greatly between participants, however the general sentiment throughout this discussion was the lack of meaningful progress or resolution of the issue and connections between current governance structures and decisions. This can be seen in the quote below;

> "…I don't know if it's changed at all… nothing has been accomplished, absolutely nothing…Um, so the goals haven't changed. Um, my resentment, my anger has gone well beyond the, uh, provincial government to the federal government now. Uh, so that's changed for me personally." (Speaker 1)

Interestingly, all four participants drew parallels between government decisions throughout the Grassy Mountain Mining Project evaluation and other recent provincial and federal political events. For example, various perspectives on the change of Alberta's premier under the United Conservative Party (UCP) and the proposed Alberta Sovereignty Act were voiced, events which both occurred shortly prior to the interviews being conducted. Speaker 2 states;

> "[M]y motivations haven't changed. I'm disappointed that it feels like we have to start all over again with a new premier. So, my motivations haven't changed. I'm just disappointed that the progress seems to, to be for naught now. I don't know. I could, I could be proven wrong, but everything is pointing against that." (Speaker 2)

The general agreement across interviews echoed the opinion of Speaker 2. Even in cases when the participant felt their original goal regarding the project has been accomplished, the overall sentiment was that a threat still exists and activist actions are still required. It is important to note that changes in provincial government leadership without a re-election and the introduction of the Alberta Sovereignty Act occurred in a similar timeframe as the interviews and had media attention at the time, likely these events and their implications at the forefront of interviewee's minds (Bennett, 2022). This observation provides an interesting example of interactions between various forms of both traditional and non-traditional media and the dynamic nature of online activism (Casero-Ripolles & Pepe-Oliva; 2022).

5.1.3 Personal benefits and drawbacks of social media use

All individuals interviewed spoke about spending significant amounts of time on social media platforms throughout the period in question. As part of conversations about their time spent online, participants reported experiencing both significant benefits and drawbacks because of their use of social media. For the purposes of this question, social media was defined as 'any online platform where you can directly interact with other people'. Though participants focused primarily on their experiences on Facebook, the question was intentionally left open-ended to gain a better understanding of the value participants gain from the use of different platforms and how this relates to their use of Facebook.

Three out of four interviewees were asked specifically about personal drawbacks and benefits to social media use during the period in question (due to participant time constraints, this question was unfortunately not asked to one of the participants). The benefits reported from the use of social media were closely related to the motivations for participating in social media activism. Increased access to information from sources that are perceived as reliable, improved skills such as writing and critical thinking[20], ease of contact with friends and family, and a sense of community were all benefits interviewees felt they gained from their participation in social media during the time period in question. Previous academic works on individuals perceived benefits of social media use throughout Covid-19 report similar experiences to those interview participants describe, with two major benefits being access to information on current events and feeling connected to friends and

[20] Critical thinking refers to participants' reports of feeling better equipped to process, question, apply, and pick out inconsistencies in the information they encounter. This topic which was not explored in depth within this project due to scope but is a fascinating direction for future research.

family (Saud et al., 2020; Igartua at el., 2020). Given that this research focuses on late 2020 to mid-2021, it is also important to examine these experiences within the context of Covid-19. Section 5.5.0 dives into this further and is dedicated entirely to participant's experiences and relationships with social media during the pandemic and ensuing public health policy.

Perhaps one of the most interesting interview findings was that three out of four participants described the major drawbacks of their social media use to be personal- namely, the impacts of social media use on their personal relationships and on their well-being. When asked the downsides of their social media use, Speaker 4 states;

> "Well, I hate social media (laugh). There's always drawbacks. The biggest drawback is my husband sitting there at night watching a TV saying, 'will you get off your phone'… he doesn't understand how important it is." (Speaker 4)

This sentiment was far from uncommon, with Speaker 2 describing their experiences on social media as "…pretty exhausting" and "Oh, God, you can waste so much time…at some point I go 'What am I doing?'" (Speaker 2). Speaker 1 was not asked directly about drawbacks, though they mentioned that they joined Facebook specifically to advocate for their views on the Grassy Mountain Mining project and within this context, expressed that they "...look forward to being off Facebook and never joining it again" and that "the value [Facebook] offers isn't all that great" (Speaker 1). These quotes highlight the two sides of participants' experiences with social media as both a powerful tool for communicating views and beliefs but at the same time, a tool which does not prioritize the user's well-being or best interests.

5.2 Social Media Processes: Building a Network

A social movement, regardless of the form it takes, is the product of individual motivations and goals coming together to form a united collective (Gamson, 1989; Bennett & Segerberg, 2012; Kavada, 2015). This can be observed in both the social media analysis discussed in Chapter 4 and

the interviews conducted with individuals who participated in the online groups. Within these collectives, distinct processes emerge along with a variety of forces that continuously shape the movement (Shafi & Ran, 2021). This section focuses specifically on the relational elements of the Grassy Mountain mine activist networks. For the purposes of this discussion, relational elements are used to refer specifically to the properties of connections between/within actors of a network, as opposed to technical elements which refer to how the system (i.e. the blend of online and physical space) in which the network is situated influence these connections (technical elements are further explored in section 5.4.0). Based on interviewee's accounts and literature on online political mobilization, these can be loosely categorized into two organizational forces- the relationships and actions shaping the movement from within and the relationships and actions shaping the movement externally through the larger activist ecosystem (Bennett & Segerberg, 2012; Milan, 2015; Brescia, 2020). Within the movement, this includes various group member's relationships with each other, the issue, and the activist actions themselves. External relationships impacting the movement include the greater activist network, the policy and political landscape, and the space in which political advocacy or protest occurs. This first half of section 5.3.0 focuses on the various actions and tactics which participants utilized to communicate their perspectives and get the attention of governing officials. The latter half of this section discusses how interview participants perceived the roles of various key actors and their relationship within the larger activist community network, with the intention of shedding further light into the activist network introduced in Chapter 4.

5.2.1 Tactics and processes within advocacy groups

Regardless of interviewees' perceptions on the overall impact of their engagement or the outcome of the collective activist action, participants were asked specifically about their thoughts on the general structure of the online movement and which specific activist tactics within the group

they felt had the greatest impact in motivating other group members to act and on the ultimate policy decision regarding the mine. Multiple speakers (Speaker 1 and 4) mentioned that from their experience, some types of content are more effective than others. Posts which could motivate action or resonate on a deeper level with page followers are most effective in online political activism, as they create a united front and coordinate individuals act in an organized manner to communicate the group's political message effectively.

> "I think the least effective posts are, um, people just ranting, like I'm doing, about the government. That's not very effective at all. Um, I think you need to give people a nice factual story with, with a, uh, a bit of a, uh, a pull on the heartstrings." (Speaker 1)

In the above quote, Speaker 1 also highlights their view that "people just ranting" are the least effective form of online activism. Instead, group members prefer to interact with content that relates to them specifically. This is reflected in literature on framing within online social movements, such as the recent work of Ackland and O'Neil (2020) which finds that framing in online settings is a key element of online activism and has the biggest impact on individual actions when coming from weak-tie networks.

In terms of specific content, the ease of the action was a key consideration when actively engaging with online content, "because people like to do quick, easy things." (Speaker 4). Specifically, pre-written letter templates were well received by participants, including Speaker 4 who states, "those, those auto-generated emails. They are brilliant, a brilliant online tool.", and Speaker 2 who further elaborates on the value of this tool;

> "Well, I do believe the action items they posted were, were good, well received by me, and I do believe well received by a lot of people because they often gave you a template of a letter that you could use. Um, sometimes I use the template, sometimes I decided otherwise and chose my own wording." (Speaker 2)

The experience of Speaker 2 being able to "decide otherwise and choose [their] own wording" is a key element of personalization within connective action (Bennett & Segerberg, 2012). Both quotes

also touch on the types of online political engagement that feels effective to participants- ones that are quick and feel impactful while requiring minimal time or effort. More broadly, the attitude perceived to be most effective in online political engagement within the groups among interviewees is captured briefly, yet effectively in the following statement;

> "I think that that's a hopeful thing for me, that people seem to be looking for nice messages… this was, if anything, the biggest show of what people coming together can do." (Speaker 2)

The observation that people within the activist groups seem to be looking for "nice messages" and unity was also echoed by Speaker 1;

> "We worked very hard to try to respect the other point of view when it was respectful in turn. I think that probably led to a lot of success in the group actually, that could include, um, disparate politics in it in a reasonable manner." (Speaker 1)

Both speakers attribute at least part of the success of their group(s) to the positive attitude of its members and seemingly, a desire to create an online space where participants felt empowered to share their perspectives and engage in discussion. For the most part, respectful types of engagement were considered by interview participants to be the most effective in communicating political views. However, when looking at the full snapshot of discourse on social media there are numerous other factors at play, some of which are discussed in the following section and section 5.4.0.

5.2.2 Greater activist network

Discussion with interview participants showed further insight into the greater activism network regarding the Grassy Mountain Mining project and its various actors. Due to the large group of anti-mine advocates and the highly organized nature of the affiliated groups, the majority of the organizations or collectives discussed by interviewees were advocating against the mining project. The overall activism effort against the Grassy Mountain Mining project consisted of various

actors that filled distinct roles. For example, multiple interviewees described the role of CPAWS as the primary organizer of letter or email writing campaigns, including pre-written templates that individuals could either customize or just fill out with their information. One interview participant describes:

> "…people like CPAWS who are doing the quick emails where you could literally just click on it and it would tell you your MLA… you could just like send it or you could just make little changes to it and then send it." (Speaker 4)

Speaker 4 captures some of the external network structures behind providing group members some of the tools for political participation discussed above. CPAWS is a more established organization- their Southern Alberta Chapter has been running a variety of campaigns throughout Canada since 1967 (CPAWS, 2023). The ability of the organization to provide tools capable of auto-generating emails that are customizable and accompanied by an email list of relevant political figures is one that significantly decreases the energy required for individuals to participate in online activist action. However, setting up an online system capable of automating email writing campaigns is also a resource-intensive process and one that is likely not a possibility for other actors within a movement, who may not have the hard or soft resources required to provide such tools, especially at early stages (Ackland & O'Neil, 2020).

Grassroots organizations that are primarily online, such as PARH, can provide other resources to larger or more established organizations. PARH gained a large and engaged audience spanning the province in a short amount of time with relatively few resources. CPAWS providing access to their tools or the Niitsitapi Water Protectors hosting informational webinars were both activities which were communicated at least in part through PARH. This can be seen as an example of the relationship between various actors within a greater movement, including the strategic sharing of resources between organizations to maximize their impact. Consistent with the literature on online

social media movements, both the social media analysis findings in Chapter 4 and the interviews presented in this Chapter position the PARH group as a major communication venue for other organizations within this network, such as CPAWS (Bennett & Segerberg, 2012; Ackland & O'Neil, 2020).

Another dimension of the activist networks described by interview participants was not based on formal organizations themselves but on the interests of various actors. According to interview participants, this occasionally resulted in internal conflict within groups- even when they held the same ultimate political goals regarding the Grassy Mountain Mining project, Speaker 1 notes that "there's lots of room for everybody to fight everybody". Across interviews, hunters, conservationists, ATV users, industry, and ranchers emerged as some of the primary interest groups advocating for their political interests regarding mining in Alberta. The Livingstone Landowners Group (LLG) was discussed in some capacity throughout all interviews as a collective representing the interests of land users. Of this group, a significant proportion was described by interviewees to be the ranching community since most pastureland is downstream of the proposed mine and would impact water quality in that space. Within both the pro- and anti-mine activist networks, the ranching community was presented as a contentious player who had strong political sway regarding the issue but whose motivations were questioned by other actors both within and outside of the movement. The following quotes capture some of the complex and at times, conflicting, views the ranching community evoked within interviewees;

> "I just kind of think it's ironic that… there's damage from everything and [the ranchers] kind of overlook the damage that they do, but I'm very grateful they were involved. They're very much feeling like they, um, are totally responsible for having stopped all this. They were super instrumental, there's no question, but they weren't alone." (Speaker 1)

> "The ranchers involved was, was huge because, you know, they're the UCPs normal base, even though it seems that they haven't really pivoted as much as they should have done." (Speaker 4)

The general attitude of the interviewees towards ranchers was a distrust of the political power the ranching community as an advocacy group holds within Alberta, through their possession of both political and monetary resources. The point of conflict for a variety of activists across all views on the issue of coal mining was that much of the prosperity within the ranching community was obtained through practices that are also environmentally destructive, which the ranching community seemingly failed to acknowledge. Some interviewees also expressed frustration with the views of the ranching community on the outcome of the project, saying that they felt the ranchers took most of the credit for the Joint Review Panel's decision to recommend against the project, failing to credit the variety of other groups and individuals who also put extensive effort and resources toward advocating for the issue. Tensions within the movement exemplified through the ranching community also raise interesting questions about the social dynamics within an online movement where individuals of diverse backgrounds, and the processes through which conflicting views on an issue are reconciled to work towards a shared outcome (Saunders, 2013; Kavada, 2015).

5.3 Politics of the Platform

The structure of Facebook as a social media platform and the complex relationships that participants have with it was a reoccurring theme throughout interviews. This includes the design of the platform itself (ie the application functions and algorithms), the tools Facebook gives to page administrators and participants, and how this shapes user's interactions with, within, and outside of the platform. Interviewees encountered these attributes from multiple perspectives and though there is great diversity within their experiences, this section touches on some of the features of Facebook that participants feel shaped their political activism around Grassy Mountain. First, interviewees interactions with Facebook platform itself are explored. Once this is established, how interviewees utilized these tools and how this impacted their interactions with other users is examined. When

thinking about the findings presented in this chapter, it is important to note the online space we interact in is formed not only due to the features of the technologies we use (whether this be material or immaterial), but also because of users' constant, complex interactions across these features (Faraj & Azad, 2012).

When asked about the social media platforms interviewees used to participate in online activism around the Grassy Mountain mining project, Facebook was the most used platform (this is unsurprising given the research design). Other platforms such as Twitter, LinkedIn, TikTok, Instagram, and dating apps were also mentioned within the context of social media use. However, these were not top choices for participating in political conversation regarding the Eastern slopes, with Twitter being the only other social media platform used specifically for activist actions. In comparison to other social media, interview participant the structural features of Facebook to be advantageous in bringing people together for political advocacy, especially the option of creating a group where certain conditions must be met to enter, such as answering vetting questions. Another feature which helped organize collective action was the ability to create and share events through Facebook, which became especially relevant within a Covid-19 context (discussed in Section 5.5.0).

Along with the abilities to organize collectives through built in features like events and groups, interview participants viewed Facebook as a platform for political advocacy in a positive light when discussing the benefits of social media technologies in spreading messages across a wide audience. Two of the four participants mentioned the skill of being able to 'play the algorithm' as a key factor in the success of an online social movement. 'Playing the algorithm' refers to users familiar with how social media algorithms function and the skills to strategically influence the reach or longevity of online content. Speaker 3 describes;

> "I sometimes feel like... it is a double-edged sword if, you know, if you have someone who's savvy can play the algorithms. Cause that's what I think it comes down to. If you

> can create a certain algorithm that's gonna pop up and keep people seeing people's feed over and over again, that way they can actually get interacted." (Speaker 3)

In this statement, Speaker 3 also captures a deeper and more complex relationship with the platform through their description of the algorithm as a "double-edged sword" (Speaker 3). They further elaborated on the other, less positive edge of this sword later in the interview when describing their belief that "…the more right-wing and more negative or violent the algorithm is, the more likely people are actually going to see it on their feeds" (Speaker 3). This sentiment frames the algorithm and the overarching structure of Facebook as one that intentionally favours more extremist thinking and pushes less polarized content into the margins. Speaker 3 flags this as a disadvantage for activists or movements that take less extreme approaches to political advocacy. When describing functions of the algorithm and the platform itself (as opposed to the manipulation of it by users), other interview participants also viewed Facebook as a divisive tool that was frequently counterproductive to the purpose of the activist groups. Speaker 1 noted that it "seems like they are trying to build a controversial platform half the time. I don't know what's going on. I couldn't really tell you, but they certainly don't give us tools that are helping us". In this quote, Speaker 1 is referring specifically to features Facebook provides when using the 'Group' function that is intended for organizing and managing collectives. Multiple speakers using these features expressed frustration and a lack of predictability with the tools and structures provided. When discussing their experiences participating in online political groups, Speaker 4 expressed a similar sentiment, stating that;

> "They give us new tools and then the next thing we know all these people would be included that we wouldn't normally include and then it seemed like when they made a comment from outside... if you posted it on the site, they were automatically included." (Speaker 4)

Examining these accounts of interacting with Facebook, it is interesting to take note of the language used to describe to online space in the above quotes, such as reference to "the algorithm" as right-wing or violent (Speaker 3), "they are trying to build" (Speaker 1), and "they give us new

tools" (Speaker 4) refer to Facebook as not only a place where interaction can happen, but as a personified or perhaps, sentient external entity that facilitates these interactions with its own motivations or interests. In the above statements, interview participants present their experiences with the platform as far from neutral, apolitical, or transparent. On the contrary, in discussion the platform and the algorithm itself were painted by participants as highly political, with a level of power being exercised over user interactions within the space. Looping back to Speaker 3's statement on users who can "can play the algorithms" it is implied that with enough skill and knowledge of the platform, users can manipulate Facebook's internal systems and gain back some of this control over the algorithm, getting it to work in their interest. Again, Speaker 3's account of "playing the algorithms" presents the platform as not a tool that is used, but with a degree of sentience that requires skillful and strategic manipulation to work as the user intends it to. This theme is also reflected within the literature, which generally supports interviewees' accounts of Facebook as a polarized space where the design focus is not on the average individual using it, but on independent and commercial interests (Milan & Velden, 2016).

Though we established that Facebook is a political space with both the internal and external structures of the platform influencing user experience and behaviour (Milan & Velden, 2016), we have yet to discuss its impacts on online political advocacy and collective action. All interview participants shared some of their experiences with Facebook features that directly impacted their or others' engagement in political participation within the platform. Consistently across interviews, individuals reported encounters being blocked or blocking others, a feature that can entirely cut off users' ability to participate in certain forms of online activity, to an entire lack of control over users' political participation within groups or pages. Most interviewees reported being blocked by at least one government official or political figure on social media, on both Facebook and Twitter, because of posts or comments they have made on their pages related to this issue. However, some

interviewees have also experienced the blocking feature from an administrative side, in both the groups examined and in other instances throughout their time on social media.

5.4 Covid-19, Social Media, and Political Advocacy

Physical space is at the root of collective action surrounding the Grassy Mountain mining project. As was discussed in Section 5.2.0, interviewees describe the meaning that Grassy Mountain and the eastern slopes hold for them to be a key motivator in advocating for that space, often tied back to their personal encounters with that area and strong beliefs around how the value of that space. Grassy Mountain and the eastern slopes being at the center of this movement makes it the case study especially interesting given that it is situated within the context of a global pandemic, when existing in physical space was different than ever before. Behind all these elements, there is one underlying theme that has not yet been explored- a shift in how participants relate to and exist in the spaces they occupy. The purpose of this section is to explore how participants navigate online vs physical space during this time, how they have adapted to the circumstances, and the impacts of this shift on their political participation.

When asked about their social media use prior to the pandemic versus throughout, all participants responded to the question without hesitation. Most commonly, interviewees tied their increases in social media use during the pandemic back Covid-related shifts in personal motivations for participation, such as access to information and a desire for social connection. Speaker 2 stated that "[i]t's definitely gone up, um, cause if you couldn't go anywhere, you couldn't meet people. Social media was a way to connect or find out what's going on." (Speaker 2). Speaker 3 also ties their increase in social media use to the combination of a desire to keep in touch with friends and family and working from home during this time period, which made devices such as a cellphone or personal computer more accessible throughout the workday. Speaker 4 exclaimed;

> "Oh my goodness. I think it's definitely tripled (laugh)… I've been working very hard to get that screen time to say your screen time has dropped by 14% this week instead of your screen time's gone up by 50% (laugh)." (Speaker 4)

Speaker 4 also attributed their increase in time spent online to their social activities being done virtually due to safety concerns. In addition to the influence of the Covid-19 public health measures on social media use, Speaker 4 also drew an explicit connection to political activism and their social media use beyond the pandemic, stating "…it's gone up since I became an activist, to be honest" (referring to a time prior to the pandemic). They also note that in the context of political activism, their patterns in social media use depend largely on the political landscape, with increased time spent online during periods of organized protest activity. It is interesting to note that a common sentiment throughout both the social media analysis and interviews is a distrust in governing bodies during time of crisis and a belief that controversial or harmful policy choices will be made while the general public's attention is on the pandemic. (Grant & Smith, 2021). Though Speaker 1 was not directly asked about their social media use throughout the pandemic due to time constraints, they were asked to share thoughts on their involvement levels in similar online settings moving forward into a (hopefully) pandemic-free future. Speaker 1 suspects that there will be less political involvement in online activities regarding coal mining on the Eastern slopes than there was throughout the pandemic.

Finding ways to overcome barriers towards engaging in physical protest was a key component of the Grassy Mountain mining project activism for interview participants. Three out of four interviewees participated in some form of physical protest between December 2020 and August 2021. With public health measures changing multiple times throughout this period, interview participants found creative ways of engaging in traditional forms of protest. Speaker 4 observed that in their time spend in a protest environment during Covid-19 "often starts with the online…most of our protests have started by something that's been said in one of our groups and then, you know,

you take it on and it snowballs from there." (Speaker 4). They went on to recall one experience of organizing collective action during the pandemic and related restrictions;

> "We were sitting in a chat group thinking, what can we do? We can't go for a protest… we came up with … we'd get out one by one and go chalk our message and get back in our car. And then when that person got back in the car, the next one, you know, we'd just like do this rolling thing… but that was started online totally." (Speaker 4)

Chalking refers to the act of writing messages in chalk in public spaces. This account exemplifies an adaptation of the traditional protest, while still working within the public health restrictions of existing in that space.

In the experience of Speaker 4, online spaces (in this case, Facebook) were used to organize and facilitate aspects of physical protest. This presents an interesting observation on relationship between the uses of physical and online spaces during the pandemic, where in this case, existing and participating in online space is a pre-requisite for navigating physical space (Tufekci, 2018). Speaker 1 also organized individuals within their network in an outdoors, rural space overlooking the eastern slopes, and "…had quite a little chat and that was very emotional and I think, it, it showed some real concern" (Speaker 1). This speaks to the impact that placing oneself within a physical space can have on perceptions around the issue. Speaker 1's description of this gathering as "very emotional" further emphasizes the personal value assigned to physical space that was described as a key motivator for participation across multiple interviewees in Section 5.2.0. Finally, Speaker 2 described their experience participating in a march organized to protest the Grassy Mountain Mining project and meeting new people through this experience;

> "One lady who I marched with in that parade, cuz I had a great big, huge sign. It was four, five feet wide, so I needed somebody to carry it with me. So, um, I met her in the group to help carry the sign." (Speaker 2)

This march was also organized online, in collaboration with another advocacy group. This quote highlights an online component to the traditional protest forms, where the online network formed through the Facebook group enabled Speaker 2 to get assistance holding the giant sign and thus,

participate in the march in a way that may otherwise have not been possible or at the very least, been more difficult. Given the interviewees' experiences, even when protest was happening in physical space, Facebook was a focal point of organization efforts, information sharing, and valuable in situating individual experiences within this network to form a collective. However, Speaker 4 offers an interesting observation regarding their thoughts on the long-term impact of online versus physical action;

> "I participated in one of those protests downtown and, um, that had a short-term efficacy. But I believe the fact that the, the thousands of people that follow that page is visible at any point in time makes it seem, it's more long term." (Speaker 4)

Though conversations with participants describe collective action within physical space to be an invaluable component of the Grassy Mountain Mine project social movements, Speaker 4 raises a key argument that, highlights a major benefit of online political action. In theory, the information posted online is eternal and moves beyond time, but in practice, this is often not the case.

5.5 Conclusion

Chapter 5 wraps up the analysis of the rejected Grassy Mountain mining project through in-depth interviews with individuals who were active on the Facebook pages of interest during the period of this case study (December 2020-August 2021). These conversations were an excellent supplement to the social media analysis and together, provide insights into the objective at the core of this thesis- how Covid-19 and the subsequent increase in the use of social media as a communication tool has shaped how individuals advocate for their political interests in the online sphere and how this translates into change in physical spaces.

In Section 5.2.0, interviewees emphasized that it was the personal meaning and sense of identity attached to Grassy Mountain and the Eastern Slopes which drove advocacy efforts. Supporting this observation, the most effective posts were described as resonating with users on a

deeper level, as this was believed to create united fronts. There were also significant drawbacks to participating in groups regarding the mine, with the majority of participants describing a negative personal relationship with Facebook. This tension of Facebook as a powerful communication tool that users don't plan on leaving, even when the negatives of its use may not outweigh the positives, hints at a theme which previously emerged in Chapter 4 and constitutes a key finding within this research as a whole- the relationship between a seemingly neutral, apolitical platform and its users.

Though the overall experience with Facebook use on a personal level was negative, interviewees also reported a variety of positive outcomes of their time spent on the Facebook groups in question and social media more generally. Keeping up to date with current events, contact with friends and family, improved writing skills, and the perceived ability to critically examine online content were all reported as benefits of social media use, especially within the context of Covid-19. Improved critical thinking skills were an especially interesting positive outcome of engaging in online political groups, as one person's definition of what constitutes a reliable source may be seen as misinformation by another.

The various ways that Facebook as a platform impacts user experiences and interactions within the online sphere was intertwined throughout nearly all segments of participant interviews. Working off these accounts, Section 5.4.0 focused on how Facebook's structure and features influenced political activism related to the Grassy Mountain mining project. User experiences with the design and features of Facebook (including its algorithms) was generally described as unpredictable from both a group administration and group member perspective, which resulted in various issues such as individuals who did not pass screening questions entering groups or vice-versa, group members being kicked-out or banned for posting content which may have been acceptable in that group the week before. Within interviews, another major concern arose about

Facebook's algorithms favoring extremist content and providing divisive features that hindered activist efforts. The interviewees' observations regarding these features are backed by literature (Milan & Velden, 2016). Furthermore, participants shared experiences of being blocked by government officials or administrators, highlighting limitations on political participation and conversation within Facebook. This view of Facebook as a politicized space aligns with existing literature and is one of the primary topics of discussion within Chapter 6.

The analysis provided in Section 5.3.0 also showed that, consistent with existing literature, quick actions that are easy to personalize (such as letter templates) and positive messages which emphasized unity within the movements were seen as most valuable. The Chapter 4 analysis examining the activist network regarding the Grassy Mountain Mining project was discussed by interview participants in greater depth and highlighted the roles of various actors and organizations. Interviewees highlighted conflicts arising from different interests within actors on the same side of the movements. The Livingstone Landowners Group (LLG), a pro-mine collective consisting largely of the ranching community, caused controversy as they were described to hold disproportionate power within the pro-mine activist network due to their significant political influence and historically right-leaning votes. These tensions within the movement shed light on the complexity of social dynamics and conflicting perspectives within a social movement, even when members of an activist network had same ultimate goals.

The Grassy Mountain mining project case study was largely of interest due to the context within which the mobilization of political interests occurred. Overcoming these newfound barriers to traditional forms of protest, participants found creative ways to engage within the restrictions that were placed on existing in physical space at this time. The analysis within Section 5.5.0 shows that participants still highly valued physical activist action during public health restrictions and felt that

in-person engagement led to stronger, more emotion-based connections to the cause. Regardless, online spaces have become crucial for organizing and facilitating these physical protests, with all participant accounts of physical activist action being organized online via Facebook.

Chapter 6: Discussion and Conclusions

The past three decades have witnessed a digital transformation that has profoundly impacted various aspects of our lives through increased accessibility to the internet, the proliferation of personal electronic devices, and digital communication. Additionally, the Covid-19 pandemic has further accelerated the integration of technology into our daily experiences (Stahl, 2021). This blurring of the line between the physical and virtual realms has also led to a reimagining of political advocacy and mobilization. Given this context, the research in question focuses on the intersection of political participation, social media, and the environment. Specifically, it examines the tensions surrounding environmental political participation in physical spaces and how such participation is conceptualized and enacted in the online sphere. The research employs a case study of the Grassy Mountain Mine in southwest Alberta, exploring the voices that influenced the decision to terminate the project. The study delves into the complexities of navigating and constructing meaning between tangible and intangible realities in a time when our relationship with physical spaces is undergoing significant change. With political advocacy highly relevant given the social impacts of the pandemic, social movements adapted. This reshaped the ways in which both movements as a whole and the individuals they comprise of occupied and engaged with both physical and online spaces. This Chapter wraps up concepts and findings explored throughout this thesis through a brief overview of their content, then continues on to a broad discussion of notable thesis findings in relation to existing literature, including future directions and research limitations.

6.1 Thesis Overview

6.1.1 Background and Theoretical Basis

Though work on social movements has existed since the 1800's and these frameworks have shaped much of today's perspectives on collective action, widespread access to the internet in the

mid-2000's marked a new era connectivity and social movement theory (cf. Olsen, 1965; McCarthy & Zald, 1977; Tilly, 1978; Habermas, 1981; Melucci, 1996). Notably, the Arab Spring of 2011 represents a shift towards social movements utilizing largescale digital media and online platforms, resulting in the emergence of a new era of collective organizing- coined "connective action" (Bennett & Segerberg, 2012; Kharroub, 2016; Tufekci, 2018). Connective action emphasizes personalized communication, individualized action frames, and the role of digital networks in mobilizing collective action. It highlights the decentralization of organizing agents and the formation of weak tie networks, with more recent works also raising questions about the political nature of online spaces and the impact of social media as a commercial entity on collective action (Milan, 2015; Milan & Velden, 2016).

With social media platforms acting as an organizational agent to most of today's social movements in some capacity, it is valuable to examine how the platform itself may influence activist action. Social media platforms, driven by profit and a lack of transparency to maintain their interests, have implications for politics, economies, and culture, forcing social actors to recalibrate their positions within society. These platforms facilitate rapid content turnover, personalized narratives, and weak tie networks which may be beneficial qualities for online collective action. However, this also contributes to the short-lived nature of online social movements, fosters echo chambers, and in some cases, has been shown to decrease political deliberation. It is clear that social media entities have biased interests shaping user experience, but online social movements are not just a product of their setting. Literature within the field suggests that there are generally positive relationships between online and offline activism on an individual level, although the context in which participation is situated plays a significant role.

Van Deth's (2021) model was the chosen approach to conceptualizing political participation, as it considers different levels of political participation, encompassing both action and intention, in order to comprehensively understand the various forms of online political participation while accounting for their differences. Research indicates that an individual's belief in their capacity to reach their goals as a collective (collective efficacy) along with a belief in their own capacity to influence the political system (internal efficacy), is linked to increased offline political participation. Facebook users demonstrate higher collective efficacy, and the platform is thought to have a greater impact on offline political participation compared to other platforms like Twitter (Halpern et al., 2017).

One concept that can guide interpretations of interactions across online and physical space is Soja's thirdspace. Thirdspace refers to the understanding that the value we assign to a space, whether it be online or physical, is one that is dynamic and continuously enacted by the experiences of individuals to whom it holds meaning (Gamson, 1990; Soja, 1998). It challenges existing binaries and allows for the emergence of the "Other". When applied to the online sphere, the flexibility and ambiguity of thirdspace find parallels in the dynamics of social media. This enables connectivity and meaning-making through interaction while transcending traditional (geographic and social) boundaries and giving space to reimagine them. This links back to digital connective action through Milan's (2015) notion of "cloud networking", which emphasizes the sociotechnical nature of digital collective action. Social media enables the renegotiation of boundaries by giving users a space where they can come together and form personalized narratives, identities, and networks (Bennett & Segerberg, 2012; Shafi & Ran, 2021). However, this space isn't fully public and no matter how radically transformed- the space is owned, facilitated, and ultimately, constructed, through the commercial interests of profit-driven corporations. The overall purpose of this thesis is situated deep within these conflicting dynamics.

6.1.2 Case Study

Crowsnest Pass is a specialized municipality and historical mining town, located in the Rocky Mountains of southwest Alberta. It is overlooked by Grassy Mountain, the proposed home of a metallurgical coal mine until August 2021. An online grassroots movement, under the name "Protect Alberta's Rockies and Headwaters" emerged to advocate for the denial of the mining project, highlighting concerns about environmental degradation and water pollution throughout Alberta. The group gained significant support, amassing over 37,000 followers over a few months. In response, a pro-mine group called "Crowsnest pass. Ghost town" emerged. As of June 2021, the project was denied by the Alberta Energy Regulator and was shut down by the Government of Canada's Impact Assessment Agency by the end of August 2021, resulting in mixed feelings across political interest groups.

6.1.2 Research Design

Throughout this thesis, it is evident that social media platforms as venues for political participation impact various elements of how politics are enacted online. The case study of the Grassy Mountain coal mining project was used to examine interactions within the online and physical world, especially when movement was restricted due to the Covid-19 pandemic. Specifically, this thesis set out to explore the following questions;

1. Within the case of the Grassy Mountain Mine project, how do various actors conceptualize and enact political activism across online and physical space?

2. How have individuals communicated their political interests regarding the Grassy Mountain Mine project through online channels since the start of Covid-19 pandemic and ensuing restrictions?

3. What role does the digital infrastructure in which this social movement was situated play in facilitating these communications and processes?

A mixed methods approach was taken to conducting this research, consisting of the social media analysis presented in Chapter 4 and the semi-structured interviews presented in Chapter 5. The social media analysis was conducted using anonymized data from four public Facebook groups related to the Grassy Mountain mining project, resulting in a total of 612 post "bundles". Due to limitations in data collection methods, posts were collected manually using keyword searches. Though this decision was a product of some unexpected data collection challenges, this approach allowed the researcher to gain familiarity with the content, which was ultimately of great benefit. To gain a deeper understanding of personal experience as an online activist, a total of four supplementary interviews were conducted with individuals who have contributed social media content in at least one of the four groups related to the Grassy Mountain Mine project. This resulted in a more nuanced understanding of the issues and allowed the clarification of points from the social media analysis.

6.1.3 Research Findings and Analysis

Through a social media analysis, Chapter 4 examines the dynamics of Facebook communities related to the Grassy Mountain mining project in Alberta. Building on the social media analysis, Chapter 5 presents findings on individual experiences advocating for political interests regarding Grassy Mountain. The analyses explore the how individuals participated in each group, their differing approaches and content, and the interplay between external events, political decisions, and group dynamics. A diversity of perspectives and narratives within the groups are revealed, with perceived blame assigned to different entities such as coal mining companies, anti-coal activists, political parties, and the federal government. The findings also highlight the presence of a larger

activist network of organizations within the PARH movement, demonstrating connective action and amplification of messages through different venues. The findings from this analysis also provide evidence that the structure of Facebook influences user behavior, with certain types of content (such as links) seeming to be easier to post but more difficult to engage with, potentially due to the platform's design and commercially motivated aim to retain users. Evidence supports selective participation and echo chamber phenomena, with groups dedicated to defending a specific stance on the issue of coal mining exhibiting more likes and shares than active discussion. Likely influenced by the context of the Covid-19 pandemic, concerns over various forms of censorship and conflicts over freedom of speech within the groups were observed.

Consistent with reports of social media use throughout Covid-19 (Grant, 2021; Brückmann 2022), participants interviewed in Chapter 5 report that their general social media use increased during the pandemic, often due to a desire to seek out and contribute reliable information. This is supported by the social media analysis, where "Informational" posts are a top category across the groups examined. Chapter 4 findings also show that the amount of activity across all four Facebook groups increases in response to external events, such as the Government of Alberta's policy decision to reinstate the 1976 Coal Policy governing surface mining, which is consistent with the above observation that individuals both seek out and contribute informational content through their participation in the groups. At this same time, trust in governing bodies during the Covid-19 pandemic was low, with participants believing that controversial decisions would be made while the attention of mainstream media and the general public was focused on the pandemic (Suhay et al., 2022). Regardless of political stances on mining in the Eastern Slopes, none of the interview participants feel that meaningful progress has been made and multiple participants describe their overall experience as further affirming their views and discontent with decision-makers. However, all

participants also made it clear that even though a concrete policy decision regarding the Grassy Mountain Mine had been made, they don't plan to stop advocating for their political interests.

6.2 Discussion and Future Directions

As was discussed in Chapter 3, perceived political efficacy is generally thought to have a positive impact on political action (Halpern et al., 2017). This is not reflected in the findings, as users describe both individual and collective perceived efficacy to be low but draw direct links between low efficacy and high political participation through their frustration with various facets of activism- whether this be the outcome of the project, governance systems, or both. Individuals do not feel as if they have achieved their goals or made impactful contributions through their political participation within the movements and in interviews, often describe disliking their time spent on Facebook. However, they also do not feel that their views have changed over the course of their participation and are adamant that they will not cease their contributions until the perceived issue is resolved. This speaks to perceived political efficacy, the interactions between online participation, and the greater political landscape. One possible reason for this juxtaposition is that most details regarding personal views on advocacy (i.e. individual perceptions) in this case study were gained through a interviews with a segment of individuals who were active enough in the group to see the recruitment post over a year after the conclusion of this event and also desired to share their experiences. This highlights a limitation of this research, as it is likely that the people who were interviewed do not represent the views of all people participating from December 2021 to August 2021. Given enough resources, social media data would ideally be collected in real-time using automated methods, as opposed to a social media analysis being done retroactively.

6.2.1 Emotion, Identity, and Space

Throughout the case study of activism regarding the Grassy Mountain mining project, it is evident that individual engagement with the issue in online settings is shaped by a strong emotional connection to the physical space. The social media analysis and interviews show that though organized online, physical advocacy was a key component of expressing political views regarding the mining project. Both traditional and novel physical protest tactics were used, such as chalking or rolling convoys used to spread awareness of the issue in-person and often later documented in the Facebook groups. This key connection between online and physical spaces reveals an iterative process where the meaning gained from interactions with/within the physical space is enacted online, which shapes and transforms this conceptualization in the digital realm through the input of other (often likeminded) users, in turn impacting how this space is navigated outside of the online and shaping both collective and personal identities.

This was clearly observed in participant interviews, where individuals described the value of physical space not only for them and their identity, but also for other Albertans interacting with space. A key motivator for activist action was stated to be the desire to preserve the existing meaning the space holds to them. Within the social media analysis (Figure 4.6b), it was found that content within CPGT is centered largely around personal experiences, which are communicated primarily through the form of home videos. This may also speak to the fact that CPGT was a group more local to Crowsnest Pass, where individuals seem to have shared networks in physical space to a greater extent than PARH members, where individuals were dispersed across Alberta. Differences in motivations behind physical and online activism across groups may also hold insights at the intersection of environmental activism and human psychology. Applying place attachment theory to the Grassy Mountain Mine case study is suggested as an avenue for future research on social media activism regarding physical space.

These findings complement existing work on emotions as a key component of collective action and online political participation, which indicate that emotional attachment in combination with group cohesion and solidarity is a foundational element of forming a united collective, which in turn impacts both how injustice is perceived through the process of collective meaning-building and the overall collective efficacy of the movement (Garcia, 2016; Brünker et al., 2019). The role of emotion within political participation is also consistent within a Covid-19 context, with observations of a positive relationship between strong emotion regarding events in physical space and online political participation during the pandemic (Faure & Beltran, 2022). Xu et al. (2021) also shows that within the context of Covid-19 restrictions, online interactions via social media regarding physical, natural spaces evoked strong emotion from participants, such as feeling "moved, uplifted, or inspired" (pg.9). In the works of Xu et al (2021), online expressions of emotion regarding physical space was shown to take attention and worry away from the pandemic. This raises interesting connections to this case study, as multiple interview participants stated that they joined Facebook specifically for this cause after the beginning of the pandemic and describe spending much of their time engaging with the issue on social media. Along with the finding that individuals who participate in these online settings generally do not enjoy their time on Facebook and describe significant personal drawbacks to their use of social media, this presents an interesting direction for future research on online political participation during the pandemic.

6.2.2. Impacts of Platform Structure on Collective Action

Given the ease of connectivity in today's digital era, organizing as a collective based on the constructed meanings discussed above is done largely online, transferring our conceptualization of this physical space into the digital world. However, as we transition into continuing the defense of this meaning through activist action within online space, the various attributes of a platform with its own hidden interests are also powerful at shaping how an issue is constructed and in turn how we

interact with the space around us, whether this be consciously or unconsciously (Dijck & Poell, 2015). This dichotomy situates social media platforms as a space where users have the freedom to express themselves, but by engaging in this self-expression, the corporate entity behind the platform gains ownership over the content and the power to regulate this expression. Though evidence of this exists in literature (Heyman & Pierson, 2015; Milan, 2015), rapid technological advancements in combination with a general lack of transparency on behalf of corporations makes it difficult to make conclusive statements on the techno-commercial impacts of social media platforms on online behaviours.

One major finding regarding Facebook as the platform facilitating online activism was a lack of transparency and predictability. Interview participants describe tools that keep changing and ultimately make it more difficult to manage and feel in control navigating the group. This also ties into ideas of censorship, where due to this unpredictability, group members held the belief that people were entering the group when they *shouldn't* be to intentionally sabotage the advocacy efforts or cohesiveness of the group (labelled as "trolls"). As a result, this evoked strong feelings and drastic actions among group members, often resulting a perceived need to censor content within the group to maintain cohesiveness. This lack of transparency impacts both perceptions of other activists within a network and emotions around online participation within the groups, requiring Facebook users to recalibrate their existence within these online collectives accordingly (Edirisinghe, 2011, Milan & Velden, 2016).

Both Alvarez et al. (2015) and Garcia et al. (2016) found that individuals participate in online discussions when their emotional arousal passes a certain threshold and that this state is achieved much faster when viewers are viewing polarizing content, as opposed to neutral content. This is consistent with interview findings that polarizing content evokes more emotion, which, according to

Garcia et al. (2016) in turn increases participation and online discussion. This is consistent with the "political" category emerging from the social media analysis across both the CPGT and PARH groups, where distinct sides were taken with one of the two main Alberta political parties (New Democratic Party versus United Conservative Party). It also provides insight into the observation that non-political parties (CPU and AACP) had many more comments than reactions to posts, signifying more conversation happening. Though much of the time the post itself was not polarized, users in the comments voiced strong opinions on the issue, leading to deliberation within the comment sections and emotion being evoked by reading other's comments.

This lack of transparency and predictability was also reflected in my own experience conducting the social media analysis, where I gained first-hand experience with some accessibility challenges of the platform. Though presented as a public platform, my attempts at data collection made it clear that there are great barriers to accessing this data. As was discussed in Chapter 3, it is nearly impossible to pull large amounts of public data from the platform without a third-party service (most of which have been banned by Facebook). The option presented by the platform is the use of their API, which required not only a high degree of coding knowledge and time, but the data pulled cannot leave the API interface, meaning that the user does not hold any intellectual ownership over the data. When collecting data manually, loading the main feeds displaying the actual content is designed in such a way that requires an amount of processing power that even a gaming or business analytics PC cannot handle. It would require extensive amounts of computing power which are far from accessible to most people. Finally, the "search" function is far from transparent and will selectively show posts with no clear explanation of the processes behind it (which is also largely why I had to adopt the keyword approach and collection of 5 posts per week). As such, these barriers are a limitation to this research, as only a sample of data could be pulled and there was little control over the posts shown by the platform.

The formation of echo chambers within Facebook advocacy is supported, complementing work such as that of Greijdanus et al. (2020) or Zhong (2022). This can be seen through the discussion on information above, where each participant feels that their group is the true source of information regarding the issue and dismisses other sources as misinformation. This can also be clearly seen through the social media analysis, where posts in groups that are specifically dedicated to the issue of coal mining in the Eastern Slopes (CPGT and PARH) have a high proportion of reactions and shares on posts, but few textual comments. The inverse is observed in pages that are not specific to the issue (AACP and CPU).

6.2.3 Concluding Remarks

This examination of political participation regarding the Grassy Mountain Mining project during the Covid-19 pandemic provides insights into the ways that political activism can transcend boundaries between online and physical space. Rather than the binary of the physical vs. the online world, this research supports the hybrid and iterative nature of social media activism, where physical activism reinforced online activism (both through the constructions of the physical space in a digital environment as discussed above and by individuals who participated in physical actions and then posted about it to encourage activism) and online activism reinforces physical activism (most physical advocacy efforts were organized online and many of these networks were formed entirely online).

Beyond the Covid-19 pandemic, the findings of this case study remain applicable in numerous ways. The increasing tendency of social movements to adopt hybrid forms paired with a political spotlight on the diminishing future of non-renewable resource extraction raises interesting questions around environmental activism. The implications of people using Facebook as a news source while also interacting more extensively with content that evokes strong emotion raises questions regarding

the type of content that gets the most visibility on social media. This is pertinent to conversations on the spread of misinformation via social media. If activists engaging in hybrid settings do most of their framing work within this quick turnover cycle and have to work against Facebook's algorithms to ensure longevity, it may be more advantageous to post content that evokes strong emotions than it is to post accurate content, making users more likely to interact with it and as a result, help the content maintain its visibility on the platform. This provides interesting avenues for future research in terms of both the psychology of online activism and the socio-technological impacts of the digital infrastructure on information consumption.

Appendices

Appendix A: Supplementary Social Media Data

Appendix D contains a variety of supplementary information regarding the social media analysis, including:

- Weekly summaries: the count and sum of number of posts in each group, split by week and keyword.
- Embedded content structures: the template used to ensure consistency in data input between different types of embedded content and a diagram showing the different types of embedded content that were encountered, by type and subtype.

Weekly summaries, by group

Around and About Crowsnest Pass (4 posts total)

	ALBERTA	COAL	GRASSY MOUNTAIN	MINING	ENVIRONMENT	*sum*
Dec 16-Dec 19	0	0	0	0	0	**0**
Dec 20-Dec 26	1	0	1	1	1	**4**
Dec 27-Jan 2	0	0	0	0	0	**0**
Jan 3-Jan 9	0	0	0	0	0	**0**
Jan 10-Jan 16	0	0	0	0	0	**0**
Jan 17-Jan 23	0	0	0	0	0	**0**
Jan 24-Jan 30	0	0	0	0	0	**0**
Jan 31-Feb 6	0	0	0	0	0	**0**
Feb 7-Feb 13	0	0	0	0	0	**0**
Feb 14-Feb 20	0	0	0	0	0	**0**
Feb 21-Feb 27	0	0	0	0	0	**0**
Feb 28-Mar 6	0	0	0	0	0	**0**
Mar 7-Mar 13	0	0	0	0	0	**0**
Mar 14-Mar 20	0	0	0	0	0	**0**

Mar 21- Mar 27	0	0	0	0	0	**0**
Mar 28- Apr 3	0	0	0	0	0	**0**
Apr 4-Apr 10	0	0	0	0	0	**0**
Apr 11-Apr 17	0	0	0	0	0	**0**
Apr 18-Apr 24	0	0	0	0	0	**0**
Apr 25-May 1	0	0	0	0	0	**0**
May 2-May 8	0	0	0	0	0	**0**
May 9-May 15	0	0	0	0	0	**0**
May 16-May 22	0	0	0	0	0	**0**
May 23-May 29	0	0	0	0	0	**0**
May 30-Jun 5	0	0	0	0	0	**0**
Jun 6-Jun 12	0	0	0	0	0	**0**
Jun 13-Jun 19	0	0	0	0	0	**0**
Jun 20-Jun 26	0	0	0	0	0	**0**
Jun 27-Jul 3	0	0	0	0	0	**0**
Jul 4-Jul 10	0	0	0	0	0	**0**
Jul 11-Jul 17	0	0	0	0	0	**0**
Jul 18-Jul 24	0	0	0	0	0	**0**
Jul 25-Jul 31	0	0	0	0	0	**0**
Aug 1-Aug 7	0	0	0	0	0	**0**
Aug 8-Aug 14	0	0	0	0	0	**0**
sum	**1**	**0**	**1**	**1**	**1**	**4**

Crowsnest Pass Ghost Town (40 posts total)

	ALBERTA	COAL	GRASSY MOUNTAIN	MINING	ENVIRONMENT	*sum*
Dec 16-Dec 19	0	0	0	0	0	**0**
Dec 20-Dec 26	0	0	0	0	0	**0**
Dec 27-Jan 2	0	0	0	0	0	**0**
Jan 3-Jan 9	0	0	0	0	0	**0**
Jan 10-Jan 16	0	0	0	0	0	**0**
Jan 17-Jan 23	0	0	0	0	0	**0**
Jan 24-Jan 30	0	0	0	0	0	**0**
Jan 31-Feb 6	0	0	0	0	0	**0**
Feb 7-Feb 13	0	0	0	0	0	**0**
Feb 14-Feb 20	0	0	0	0	0	**0**
Feb 21-Feb 27	0	0	0	0	0	**0**
Feb 28-Mar 6	0	0	0	0	0	**0**
Mar 7-Mar 13	0	0	0	0	0	**0**
Mar 14-Mar 20	0	0	0	0	0	**0**
Mar 21- Mar 27	0	0	0	0	0	**0**
Mar 28- Apr 3	0	0	0	0	0	**0**
Apr 4-Apr 10	0	0	0	0	0	**0**
Apr 11-Apr 17	0	0	0	0	0	**0**
Apr 18-Apr 24	0	0	0	0	0	**0**
Apr 25-May 1	0	0	0	0	0	**0**
May 2-May 8	0	0	0	0	0	**0**
May 9-May 15	0	0	0	0	0	**0**
May 16-May 22	0	0	0	0	0	**0**
May 23-May 29	0	0	0	0	0	**0**

May 30-Jun 5	0	0	0	0	0	**0**
Jun 6-Jun 12	0	0	0	0	0	**0**
Jun 13-Jun 19	2	3	3	2	0	**10**
Jun 20-Jun 26	3	3	3	3	0	**12**
Jun 27-Jul 3	1	1	0	0	0	**2**
Jul 4-Jul 10	0	0	0	0	0	**0**
Jul 11-Jul 17	0	2	1	2	0	**5**
Jul 18-Jul 24	3	3	2	3	0	**11**
sum	**9**	**12**	**9**	**10**	**0**	**40**

CPU (15 posts total)

	ALBERTA	COAL	GRASSY MOUNTAIN	MINING	ENVIRONMENT	*sum*
Dec 16-Dec 19	0	0	0	0	0	**0**
Dec 20-Dec 26	0	0	0	0	0	**0**
Dec 27-Jan 2	0	0	0	0	0	**0**
Jan 3-Jan 9	0	0	0	0	0	**0**
Jan 10-Jan 16	0	0	0	0	0	**0**
Jan 17-Jan 23	0	0	0	0	0	**0**
Jan 24-Jan 30	0	0	0	0	0	**0**
Jan 31-Feb 6	0	0	0	0	0	**0**
Feb 7-Feb 13	0	0	0	0	0	**0**
Feb 14-Feb 20	0	0	0	0	0	**0**
Feb 21-Feb 27	0	0	0	0	0	**0**
Feb 28-Mar 6	0	0	0	0	0	**0**

Mar 7-Mar 13	0	0	0	0	0	**0**
Mar 14-Mar 20	0	0	0	0	0	**0**
Mar 21- Mar 27	0	0	0	0	0	**0**
Mar 28- Apr 3	0	0	0	0	0	**0**
Apr 4-Apr 10	0	0	0	0	0	**0**
Apr 11-Apr 17	0	0	0	0	0	**0**
Apr 18-Apr 24	0	0	0	0	0	**0**
Apr 25-May 1	0	0	0	0	0	**0**
May 2-May 8	0	0	0	0	0	**0**
May 9-May 15	0	0	0	0	0	**0**
May 16-May 22	0	0	0	0	0	**0**
May 23-May 29	0	0	0	0	0	**0**
May 30-Jun 5	0	0	0	0	0	**0**
Jun 6-Jun 12	0	0	0	0	0	**0**
Jun 13-Jun 19	1	1	1	1	0	**4**
Jun 20-Jun 26	0	0	0	0	0	**0**
Jun 27-Jul 3	0	0	0	0	0	**0**
Jul 4-Jul 10	0	0	0	0	0	**0**
Jul 11-Jul 17	0	1	1	1	1	**4**
Jul 18-Jul 24	1	2	2	2	0	**7**
Jul 25-Jul 31	0	0	0	0	0	**0**
Aug 1-Aug 7	0	0	0	0	0	**0**
Aug 8-Aug 14	0	0	0	0	0	**0**
sum	**2**	**4**	**4**	**4**	**1**	**15**

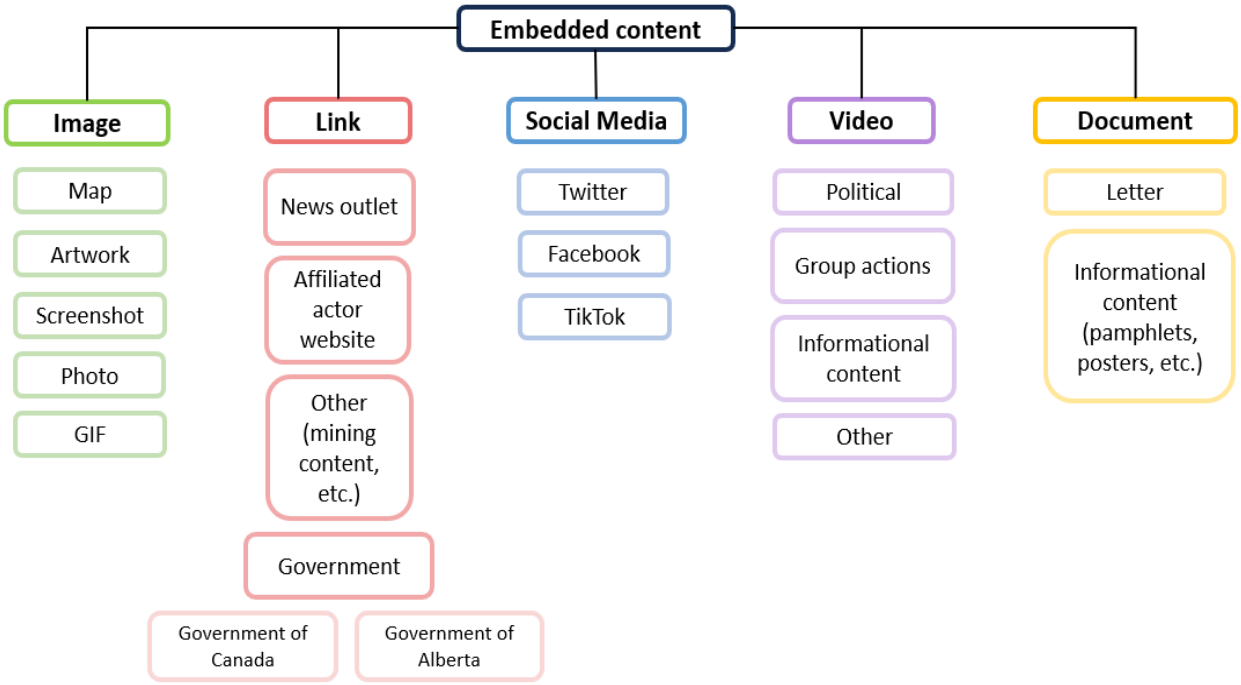
PARH (549 posts total)

	ALBERTA	COAL	GRASSY MOUNTAIN	MINING	ENVIRONMENT	*sum*
Dec 16-Dec 19	2	3	0	4	1	**10**
Dec 20-Dec 26	5	5	5	5	5	**25**
Dec 27-Jan 2	5	5	5	5	5	**25**
Jan 3-Jan 9	0	1	1	2	0	**4**
Jan 10-Jan 16	3	1	5	4	0	**13**
Jan 17-Jan 23	5	5	5	5	3	**23**
Jan 24-Jan 30	2	5	5	5	1	**18**
Jan 31-Feb 6	5	5	3	5	3	**21**
Feb 7-Feb 13	5	5	5	5	3	**23**
Feb 14-Feb 20	5	5	5	5	3	**23**
Feb 21-Feb 27	1	2	5	5	0	**13**
Feb 28-Mar 6	1	3	4	5	2	**15**
Mar 7-Mar 13	2	2	2	3	1	**10**
Mar 14-Mar 20	5	3	3	3	1	**15**
Mar 21- Mar 27	2	5	2	5	1	**15**
Mar 28- Apr 3	2	3	5	5	0	**15**
Apr 4-Apr 10	3	3	2	5	3	**16**
Apr 11-Apr 17	5	4	0	5	2	**16**
Apr 18-Apr 24	5	4	4	1	5	**19**
Apr 25-May 1	5	0	2	3	5	**15**
May 2-May 8	5	1	4	1	3	**14**
May 9-May 15	5	3	5	1	5	**19**
May 16-May 22	5	4	0	1	4	**14**

May 23-May 29	1	3	1	2	4	**11**
May 30-Jun 5	5	5	2	3	5	**20**
Jun 6-Jun 12	4	4	1	3	4	**16**
Jun 13-Jun 19	5	5	5	0	5	**20**
Jun 20-Jun 26	5	5	5	1	5	**21**
Jun 27-Jul 3	4	3	0	1	4	**12**
Jul 4-Jul 10	3	3	1	1	0	**8**
Jul 11-Jul 17	2	5	2	0	2	**11**
Jul 18-Jul 24	2	5	5	2	3	**17**
Jul 25-Jul 31	3	3	0	1	5	**12**
Aug 1-Aug 7	3	4	5	0	5	**17**
Aug 8-Aug 14	1	1	0	1	0	**3**
sum	**121**	**123**	**104**	**103**	**98**	**549**

Embedded content structures

Embedded content types encountered were documented using the following diagram to ensure consistency in the naming and designation of each type of embedded content item:



The format that was followed to input any links or other embedded media was as follows:

Template: [content type]; [content title/brief description]; [content link; if applicable]

Example 1: link; Alberta government knew bighorn sheep contaminated with coal-mine selenium: scientist; https://www.cbc.ca/news/canada/edmonton/alberta-government-knew-bighorn-sheep-contaminated-with-coal-mine-selenium-scientist-1.6022966?fbclid=IwAR3Fa7AXUdfrUeO66Qy3rZN3nFdhVvcCaPX-FYH_vexSr8dHsYNhzFMdElY

Example 2: map; Alberta watershed planning and advisory map

Appendix B: Application for Ethics Review Form (GC-REB)

GRENFELL CAMPUS | MEMORIAL UNIVERSITY
Research Ethics Board
University Drive, Corner Brook, NL Canada A2H 5G4
Tel: 709-639-2399 Fax: (709) 637-2885 http://www.grenfell.mun.ca/research-ethics-board

September 14, 2022

Reference number: **20230638**

Dear Katarina Nedeljakova,

Thank you for your application for ethical clearance for your proposal ***Impacts of social media activism on energy policy throughout Covid-19: a case study of the Grassy Mountain Mining project.*** . The Grenfell Campus Research Ethics Board (GC-REB) has reviewed your application and finds this application in ethical compliance with the Tri-Council Guidelines.

Your approval for this project expires on September 14, 2023. To remain in compliance with Article 6.14 (Continuing Research Ethics Review) of the Tri-Council Policy Statement on Ethics in Human Research (TCPS2), should your project continue past that date, you are required to renew your ethics approval before that time. As well, please note that any changes to the proposed study will need to be cleared by the GC-REB first.

Note: One final suggestion. The researcher may want to modify their date of participant withdrawal to an earlier date than their thesis submission date. We would suggest an anticipated date when a first draft would be completed since that draft would be based on the participant data. Again, this is merely a collegial opinion and giving without obligation or expectation.

The Board wishes you success with your research.

Best wishes,

John Bodner, Ph.D., Chair

IMPORTANT REMINDERS – PLEASE READ:

Important Notice regarding COVID-19: As the situation changes and develops with COVD-19, it is up to the PI to ensure that the research team remains in compliance with Memorial's current status on in-person data collection. You can follow information on the current status of policy here: https://www.mun.ca/research/.

Appendix C: *1976 Coal Development Policy* Map

As referred to in the "Case Study" section of Chapter 3, the rescindment/reinstatement of the 1976 Coal Development Policy was a large source of public discontent. This shows the original protected areas and brief description of each protected area to aid in interpreting this map. Obtained from: https://open.alberta.ca/dataset/cc40f8f5-a3f7-42ce-ad53-7521ef360b99; https://www.alberta.ca/coal-policy-guidelines.aspx

Category breakdown:

Category 1: National Parks, present or proposed Provincial Parks, Wilderness Areas, Designated Recreation Areas, Wildlife Sanctuaries, etc.

Category 2: Parts of the southern Rocky Mountains and Foothills

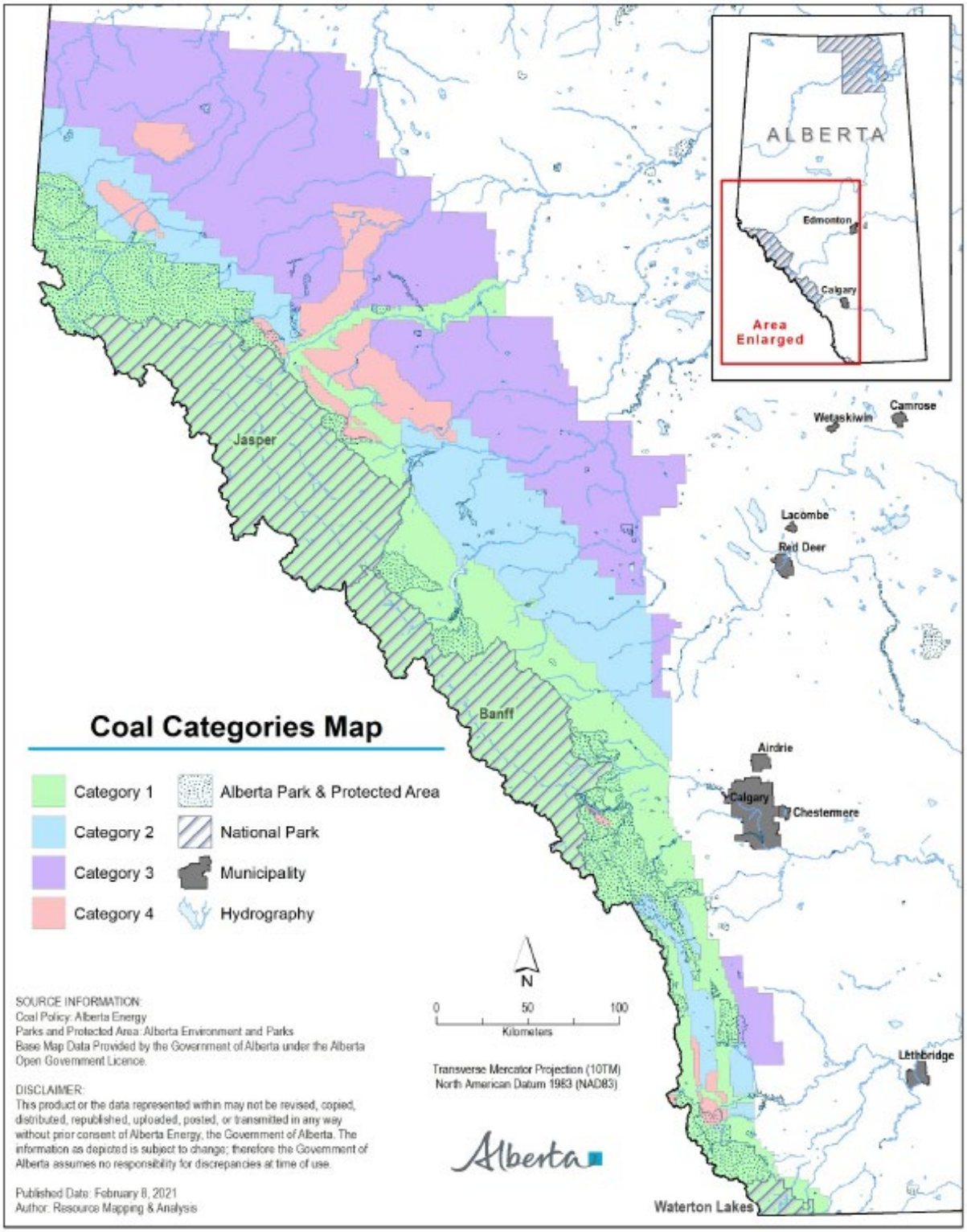
Category 3: Northern Forested Region and eastern portions of the Eastern Slopes

Category 4: Areas of the province not covered in other 3 categories

Spring 2021 updates:

"With the rescission of the Coal Policy, all restrictions on issuing coal leases within the former coal categories 2 and 3 have been removed. Alberta will continue to restrict coal leasing, exploration and development within public lands formerly designated as coal category 1. This prohibition on coal activities is being continued to maintain watershed,

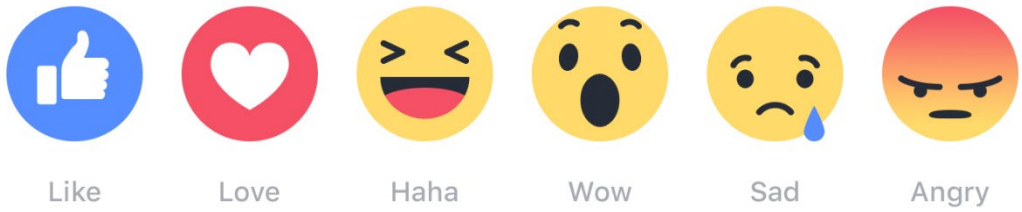
biodiversity, recreation and tourism values along the Eastern Slopes of Alberta's Rocky Mountains." -Micheal Moroskat, Director, Coal and Mineral Development



Appendix D: Social Media Terminology

Comments vs. comment responses: comments refer to direct function; comment responses refer to the use of the "Reply to comment" function on an existing comment. This allows for separate sub-conversations within each comment posted.

Reactions: an upgrade from the original "like" function of Facebook, users now have a selection of various 'reactions' to a post. This allows a wider range of emotion, including negative emotion to be shown. Reactions are as follows:



Accessed from: https://about.fb.com/news/2016/02/reactions-now-available-globally/

- Like, Love, HaHa are considered positive reactions
- Wow is considered neutral/ not positive or negative
- Sad and Angry are considered negative reactions

Shares: users have the ability to share content they see on their feeds, meaning that their network (depending on their selected privacy preferences) can see, comment, react, and further share the post.

Tagging: using the tag function, users can add the name of another user (usually someone they 'friended') on a comment or post so the other user will get a notification and be able to see the post. This does not override any content the tagged individual does not have access to.

Facebook group structures

"Facebook groups give Page owners a platform and tools to build an engaged, relevant community among existing and potential customers. Groups are hubs where valuable conversations flourish between brands and customers, and among customers themselves. … groups offer 2 privacy settings:

-Public groups: Public groups are searchable and all content is publicly visible. If you choose this privacy setting, you should expect to monitor your join requests.

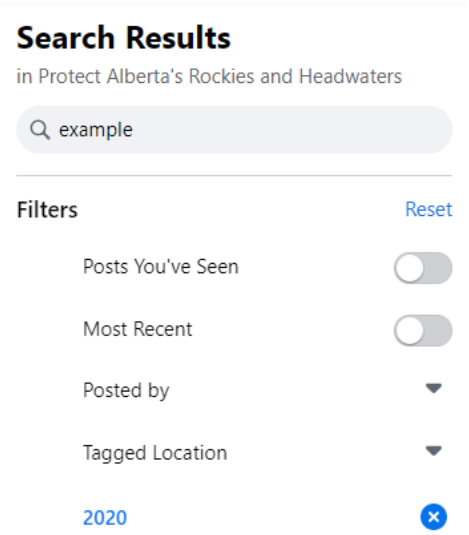
-Private groups: Private groups are searchable and anyone can request to join them, but only members can see their content." -Meta Business Help Center

Group admin: the administrator of a group. They, theoretically, have full control over their groups and can accept join requests, delete posts and comments, ban people, remove people from group, etc.

Vetting questions: a function where the administrators of any group (public or private) can set a series of questions for anyone wanting to join the group. This is designed to provide administrators more control over group membership and ensure there are no bots joining. Individuals who did not answer the questions on public groups can still see, search, and react to content, but they cannot post or comment in that group.

Group search mechanisms bar and filtering system:

The following image is an example of Facebook's search system within public groups and the various filters which can be set. Below, "example" is the word being searched and the results are being filtered by only posts made in the year of 2020.



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