

#It'sComplicated: The Relationship between Traditional Media and Twitter during the  
2019 Canadian Federal Election

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### **Dedication**

To my parents, Krishna and Lakshmi, who left us too soon.

I'll always be grateful for your curiosity and the love of life-long learning which you passed on to me.

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### Abstract

**Purpose:** To study the interaction between traditional and social media in Canadian political coverage and how that may inform public opinion by exploring the agenda setting and intermedia agenda setting effects between Canada's two national newspapers and Twitter during the 2019 Canadian federal election. **Design:** This project takes the case study approach, using mixed method content analysis to explore how much Twitter may have influenced election coverage in the *National Post* and *The Globe and Mail* during the six weeks of the 43rd Canadian election campaign. **Findings:** This study found that the same six issues were most frequently discussed both on Twitter and the newspapers; and that the intermedia agenda setting mostly flowed from traditional to social media. It also found that while traditional media tended to influence salience on Twitter, it did so only for short bursts of time. Additionally, political sentiment on Twitter was generally aligned with the election outcome of a minority Liberal government. **Originality and Value:** This project contributes modestly to the understanding of how traditional and social media interact, possibly influencing political discourse and public opinion in Canada.

**Keywords:** Twitter, Twitter and traditional media, agenda setting, intermedia agenda setting, 2019 Canadian federal election, political coverage, civic discourse, election coverage, Canadian media, public opinion, public sphere

**Paper Category:** Capstone Project/Case study

## Chapter 1: Introduction

It's probably not news to even the most casual observers and participants of civic discourse that Twitter has become the yin to political journalism's yang. Over the past 14 years, traditional news media has become increasingly intertwined with social media, especially Twitter, the microblogging platform that allows users to post in real time about everything from cute cat videos, to reactions to pop culture and current events, to political opinions (Groshek & Groshek, 2013; Lewis & Molyneux, 2018; Murthy, 2018, ). For corporate communications professionals and political operatives, Twitter has become a tool for promotion and marketing, and a way to bypass the gatekeepers of traditional media in order to send their key messages directly to the public (Conway et al, 2015; Enli, 2017; McGregor & Molyneux, 2018). In turn, news organizations are increasingly using Twitter as a source for information, contacts, story ideas and as a way to gauge public opinion (Anstead & O'Loughlin, 2015; Conway et al, 2015; Lewis & Molyneux, 2018; Molyneux & Mourão, 2019; Murthy, 2018; Wallsten, 2015). Thus, the interaction between Twitter and political journalism has become increasingly important to the civic discourse that is vital to democracy, possibly even influencing the outcomes of elections. As such, this capstone project will explore the primary research problem: *to what extent, if at all, did Twitter influence political coverage in traditional media, and by extension public opinion, during the 2019 Canadian federal election.*

As a student of communications and technology, as well as a recovering journalist, I am interested in exploring the intersection between social and traditional media and public opinion. To that end, this capstone is a case study, using a mixed methods approach to investigate the interaction between Twitter and Canada's two national newspapers within the theoretical frameworks of agenda setting and intermedia agenda setting. The methodology involves

quantitative and qualitative content analysis of the most salient issues in the data gathered from the three most popular Twitter hashtags about Canadian politics: #cdnpoli, #elxn43, and #elxn2019; and in the political coverage of *The Globe and Mail (G&M)* and the *National Post (NP)* during the six-week election campaign. Content analysis was performed to ascertain the nature of that political discourse and the agenda setting and intermedia agenda functions of the two types of media during the election.

This chapter will provide an overview of the historical and sociopolitical context of Twitter as a communication tool for both journalists and political operatives in order to establish the purpose and significance of my research problem. I will then provide a brief preview of my literature review, including a discussion of the works that most shaped my capstone project. I will then preview the research design and the studies that most influenced my methodology. The chapter will conclude with an overview of the capstone project as a whole.

### **Historical and Sociopolitical Context**

Twitter's famous blue bird logo and its onomatopoeic title implies chirping and chattering about the trivial. And that's exactly what the microblogging platform was created for when it first entered the social media firmament in 2006 (Arceneaux & Schmitz Weiss, 2010; Murthy, 2018; Rogers, 2014). Twitter gave its users 140 characters to answer the question "What are you doing?" The expectation was that people would update friends quickly and succinctly on what they were up to in real time: tweets about lunch or their favorite tv show or cute cat videos, for example (Stone, 2009). But Twitter quickly moved beyond its initial frivolity. In the essay "Debanalising Twitter: The Transformation of an Object of Study" the platform's co-creator Jack Dorsey is quoted as saying "The whole bird thing: bird chirps sound meaningless to us, but meaning is applied by other birds. The same is true of Twitter: a lot of messages can be seen as



completely useless and meaningless, but it's entirely dependent on the recipient" (Rogers, 2014, p. xii). As Twitter expanded to a fully fledged information dissemination network and communication channel, the timeline question changed to reflect its broader function: "What's happening?" (Stone, 2009).

Within five years of its creation, Twitter had morphed into a powerful communication channel that could disseminate and defuse real-time information and reactions during newsworthy events from anywhere in the world with access to the internet or mobile phone technology. Some early examples include the terrorist attacks in Mumbai in November 2008, the crash of US Airways Flight 1549 on the Hudson River in January 2009, the student protests after the Iranian election in June 2009 and the Arab spring uprisings beginning in 2010 (Arceneaux & Schmitz Weiss, 2010; Murthy, 2018; Small, 2011). Due to this evolution, Twitter scholar Dhiraj Murthy (2018) placed the platform on a continuum of other communication technologies, although he insists that its impact not be overplayed by viewing it from a technologically deterministic perspective. "Our uses of social media are products of larger social, political, and economic forces," he wrote (Murthy, 2018, p. 42).

By the 2012 US presidential election, Twitter was a fixture in political journalism as both a source for news stories and as an effective communication tool for politicians and their campaigns (Arceneaux & Schmitz Weiss, 2010; Conway et al, 2015; Enli, 2017; Lewis & Molyneux, 2018; Wallsten, 2015). The same was true closer to home with the 2015 elections of Prime Minister Justin Trudeau (Ruest & Milligan, 2016) and Premiere Rachel Notley in Alberta ("On the Trail," 2015), who were both active on social media, including Twitter, during their campaigns. Meanwhile, journalists and political operatives were also increasingly using Twitter

to gauge public opinion (Beckers & Harder, 2016; O'Connor et al, 2010; Murthy, 2015; Small, 2010; Small, 2011; Tumasjan et al, 2010).

And then came Donald Trump.

His near-daily tweet storms routinely dominate American, and often Canadian, news cycles, leading to criticism of the way media reacts, with accusations that the @POTUS Twitter account sets the news agenda, and that media organizations are allowing themselves to be manipulated (Lewis & Molyneux, 2018; Marwick & Lewis, 2017; Pérez-Curiel & Limón Naharro, 2019; Yuhas, 2017). “The public narrative about social media changed dramatically after the 2016 election of President Donald J. Trump, which brought to the fore concerns about widespread malfeasance on social media—from “fake news”, propaganda, and coordinated disinformation to bot-based media manipulation and alt-right trolling and misogyny,” wrote Logan and Molyneux (2018, p. 12), in their literature review of the first decade of social media scholarship.

These criticisms are certainly noteworthy, as is the questioning of Twitter as representative of public opinion since it is far from the largest social media network. As of July 2020, Statista reported that Twitter’s active users number at about 326 million worldwide, compared to Facebook at 2.6 billion, YouTube at 2 billion and Instagram at 1.1 billion (Clement, August 2020). In Canada, 42% of its 25.4 million social network users are on Twitter, compared to 83% on Facebook (Clement, July 2020; Clement, September 2020). Yet Twitter’s presence in traditional media far outperforms its market share (Klein, 2013; Lewis & Molyneux, 2018; Murthy, 2018). As *The Washington Post*’s Ezra Klein (2013) wrote, “Twitter is driving less than a tenth of Facebook’s traffic -- and it’s flattening out. Yet journalists -- and, quite often, the organizations that employ them -- clearly prefer Twitter. They put enormous effort into building

Twitter brands and coming up with Twitter strategies. That's the impression the social-media vendors get and the social-network employees get. It's true for every journalist I know, and it's true for me, too" (para 4-5).

Another issue worth noting is the digital divide. "The more information and communication technology is immersed in society and pervades everyday life, the more it becomes attached to all existing social divisions," wrote Dutch sociologist and communications scholar Jan van Dijk in his 2005 book, *The Deepening Divide: Inequality in the Information Society*. The concern was reflected in other studies about social media (Brake, 2013; Lewis & Molyneux, 2018), including by Murthy (2018) in his survey of studies. Around Twitter demographics, he reported that traditionally marginalized populations such as women, lower socioeconomic groups, people with disabilities and the elderly are all underrepresented on Twitter. He wrote, "News production and consumption on Twitter remain a socially stratified practice" (p. 54), suggesting that academics studying Twitter should always be aware of the digital divide. Meanwhile, a recent study from the Pew Research Centre looked at accounts from a nationally representative online survey of 2,791 U.S. adult Twitter users who were willing to share their handles and found that they tend to be younger, more highly educated, have higher incomes, and are also more likely to be Democrats. The report also said the most prolific 10% of users create 80% of tweets (Wojcik & Hughes, 2019).

Then there are the issues of fake news, election interference by bad actors and non-human, automated user accounts, known as bots, that are increasingly spreading misinformation on Twitter. For example, just days before the 2019 Alberta election, a study by the non-partisan Mentionmapp Analytics tracked 2,995 Twitter profiles using popular Alberta political hashtags like *#abpoli* and *#ableg*. The social media analysis company set a mark of 72

tweets per day as a sign of suspicious behaviour (the equivalent of one tweet every 10 minutes for 12 hours) and found that almost 30% of Tweeters may have been “non-human users, imitating normal Twitter user behaviour to influence how information is shared” (Jeffrey, 2019, para 3).

Such criticisms beg the question, why has Twitter been embraced to such an extent by journalism? There are many practical reasons for the normalization of Twitter as a tool for journalists, not the least of which is the economic realities of journalism in the digital era. Also of note is the vastly speeded up news cycle, which began with 24-hour cable news networks and has only accelerated in the social media era (Beckers & Harder, 2016; Lewis & Molyneux, 2018; Murthy, 2018, Wallsten, 2015). For time-strapped and overworked reporters, Twitter can provide fast, free and relatively easy access to contacts, story ideas and real-time, though potentially unverified, information in breaking news situations (Jordaan, 2013; Lewis & Molyneux, 2018; Murthy, 2018; Small, 2011).

Given this sociopolitical context and Twitter's increasing prominence as a communication tool for both journalists and politicians who are instrumental in agenda setting in the public sphere (Cohen, 1963; Habermas, 1991; McCombs & Shaw, 1972; Soroka, 2002) and the political discourse necessary to a healthy democracy, my research project will investigate the influence of this particular social media platform in the Canadian context, an under-represented area of research in the vast body of existing scholarship.

### **Literature Preview**

My review of the literature revealed a wide and varied body of research into Twitter and its role in journalism, politics, and civic discourse. The review is divided into several themes beginning with Twitter as a journalistic tool, including how it is used as a reflection of public

opinion, and its viability as an election predictor. The review also explores the formation of public opinion through mass media, from both psychological and sociological perspectives, the development of agenda setting theory and its evolution into intermedia agenda setting theory, and how Twitter operates within this framework. Finally, I present a brief overview of the current sociopolitical environment of polarization, attention hacking, and social media's role in the spread of disinformation. From this wide-ranging review, three works in particular, helped guide my understanding of the relationship between Twitter, media and politics, and became central to shaping the literature review and subsequent research design.

The book *Twitter: Social communication in the Twitter age (2nd ed.)* by Dhiraj Murthy was first published in 2013 and updated in 2018. Murthy, an associate professor of journalism and sociology at the University of Texas in Austin and widely considered one of the pioneers of Twitter scholarship, offers a comprehensive and balanced overview of the platform's often polarizing place in the world. Backed up by his own primary research, as well as scholarship from other leading academics in the field, he presents several case studies, as well as in-depth analysis of Twitter's impact on the areas of media, disaster coverage, politics, activism, celebrity culture, and health.

The second scholarly work of influence on my literature review was "A decade of research on social media and journalism: Assumptions, blind spots, and a way forward" published in the journal *Media and Communication* by American journalism scholars Seth Lewis and Logan Molyneux (2018). This highly critical literature review identified three faulty assumptions in the first decade of research in this field: social media would be a net positive; social media reflects reality; and that social media matters over and above other factors. Lewis and Molyneux are careful not to dismiss all previous research, but do argue that these

assumptions have left certain critical gaps, including the digital divide and the impact of big technology companies and how their ideological and business models have affected journalism. In their review, Logan and Molyneux are also self-reflective of their own work and assumptions, and urge the same of all academics in this field of study.

From a Canadian perspective, former journalist and political scientist Stuart Soroka (2002), now at the University of Michigan, wrote the influential book *Agenda-setting dynamics in Canada* while he was teaching at McGill University. This book offers empirical analysis of the interaction between the media, the public, and policymakers in Canada. It looks at how the salience of issues changes over time and examines why these changes are important to understanding everyday politics. Although it predates the insertion of social media into civic discourse, the focus on Canadian media and issue salience and agenda setting provides a solid foundation for the research designed to explore the research problem central to this capstone study.

### **Research Design and Methodology Preview**

Using agenda setting and intermedia agenda setting theories as a foundation, this project takes the case study, mixed method approach (Denscombe, 2010) to investigate the interaction between traditional media and Twitter, comparing the salience and ranking of issues in traditional media and Twitter during the election campaign.

Two early studies on Twitter use in Canadian politics by Tamara Small, an associate professor of political science at the University of Guelph, were instrumental in helping to develop the research design and methodology of this capstone project. Her 2010 study, “Canadian Politics in 140 Characters: Party Politics in the Twitterverse,” explored how Canadian politicians used Twitter as a communication channel. She took a mixed methods approach of

simple counts of Twitter metrics along with content analysis of tweets. She concluded that at that time, many Canadian politicians used Twitter but mostly to broadcast official party information rather than embracing the interactive characteristics of web 2.0 technologies. Small's 2011 study, "What the hashtag? A content analysis of Canadian politics on Twitter," was a case study using content analysis of #cdnpoli, the most popular Canadian politics hashtag on Twitter during the last week of April, 2010. She studied how the hashtag was used, concluding that its primary function was informing rather than political dialogue or reporting. She noted this as a contrast to some other places at the time, like Iran during the 2009 elections and the protests during the Arab Spring uprisings. While both studies are somewhat dated now, they provide valuable insights into Twitter use in political discourse from a Canadian perspective, illustrate how the use of Twitter has changed over time, and helped to shape the research design and methodology of this capstone project.

**Data Collection.** Data was collected using the "constructed week" sampling technique (Kim et al, 2018; Riff et al, 1996). During the initial stages of the project, the idea was to collect all the tweets and newspaper articles discussing the election during the six weeks of the campaign in order to compare and rank issue salience in the two national newspapers and the most popular politics hashtags on Twitter (Cohen, 1963; McCombs & Shaw, 1972; Soroka, 2002). However, due to time and financial constraints and the limited scope of this capstone project, ultimately a non-random sampling method was used to collect a more manageable amount of data, called constructed week sampling. It is a frequently used sampling technique in media studies where data is collected one day a week over a number of weeks in order to create a representation of an entire week of coverage (Kim et al, 2018; Riff et al, 1996). Chapter 3 will

provide a more detailed explanation of the research design, data collection technique and methodology.

Interestingly, after my research design and methodology had been developed, I discovered a paper by German scholars Oliver Posegga and Andreas Jungherr (2019) that was presented at the 52nd Hawaii International Conference on System Sciences. It used a similar research design to my own in terms of comparing the rankings of issue salience between Twitter, traditional media, and the public agenda. The authors compared the issue agenda within popular political hashtags during the 2013 German federal election with the public agenda measured by a representative survey, and the media agendas ascertained by content analysis. They found that the Twitter agenda had little, if any, relationship with the public agenda; and that political talk on Twitter was connected more strongly to mass media coverage. Although they did suggest that Twitter discussions were more likely to be determined by the attention, interests, and motivations of Twitter users themselves, rather than purely from media influence. While the authors used big data sets rather than the smaller, more manageable data sample of this capstone project, their research design helped reinforce my own approach in terms of the theoretical framework and the subsequent methodology applied to investigate my research problem.

## **Conclusion**

The primary research problem of this capstone project explores to what extent, if at all, Twitter influenced traditional media coverage, and by extension, public opinion during the 2019 federal election. In order to investigate this problem, I posed three specific research questions:

RQ1: What were the most salient issues covered by traditional media during the 2019 Canadian federal election?



RQ2: What were the most discussed topics on Twitter tagged with the hashtags #Cdnpoli, #elxn43 or #elxn2019 during the election campaign?

RQ3: How did the discussion of the most salient issues in both types of media influence each other during the course of the election campaign?

In order to address these questions, I undertook a mixed method case study approach using a quantitative simple count to establish and rank issue salience in Twitter and Canada's two national newspapers. Qualitative content analysis was then applied to the political coverage in the traditional media and Twitter discussions within the most popular Canadian politics hashtags.

The next chapter in this capstone project will present the literature review in detail, establishing how the theoretical framework was developed and how that shaped my research problem, questions and methodological design. Chapter 3 will provide a detailed overview of the research design and methodology. Chapter 4 will present findings and discussion, and chapter 5 will present a summary and conclusion to the project, including how it contributes to the existing body of scholarship and potential areas for further study.

The following chapter will present the literature review that shaped this capstone project.

## Chapter 2: Literature Review

The purpose of this literature review is to summarize and evaluate the range of research already conducted into the relationship between Twitter, traditional media and politics in a number of scholarly fields including communications, journalism and the behavioural and political sciences. The goal is to help clarify the research problem and inform the theoretical framework and methodological approach taken to exploring it.

The chapter will begin with a summary of the search methodology used to gather the most relevant scholarship. The literature review proper will be divided into several subcategories, beginning with an exploration of how and why journalists use Twitter more than other social media platforms. The review will then address the role of both traditional and social media in the formation of public opinion, including an in depth examination of agenda setting and intermedia agenda setting theories and how they will inform my research design and methodology. Finally, this literature review will outline some of the literature around how political operatives use Twitter to gain influence and support for their candidates and agendas.

### Search Methodology

**Broad search.** In order to gain a complete understanding of my research topic, I began my search quite broadly using the University of Alberta library's EBSCO database, along with Google Scholar. I applied Boolean logic to search a combination of terms and phrases related to my area of study such as *Twitter and media*, *Twitter and politics*, *Twitter and Canadian media and politics*, *Twitter and public opinion*, and *mass media and public opinion*. Since there is a vast amount of scholarship on social media in general, I purposefully used the term "Twitter" rather than the more general "social media" in order to maintain focus on this particular platform. However, some of the studies I included also discussed other web 2.0 technologies such as

Facebook, YouTube and weblogs. From the results of this broad search, a research question was developed in order to create a more systematic and focused search strategy: *How does Twitter influence public political opinion through traditional media?*

**Focused search.** As the search proceeded, certain themes emerged such as how journalists use media, Twitter as a representation of public and/or popular opinion, Twitter's election prediction capabilities and public opinion formation. These themes helped to develop my primary research problem, focusing in on the theoretical frameworks of agenda setting and intermedia agenda setting, which ultimately formed the foundation for this research study.

**Parameters for Inclusion.**

*Peer review.* To ensure academic rigor, I used peer review as the primary parameter for inclusion of scholarly journal articles because much of the research I found was conducted during the last three to five years and were not always highly cited. These peer reviewed articles came from a variety of publications including (but not limited to) the *Canadian Journal of Communication*, *New Media & Society*, *Journal of Information, Technology and Politics*, *The International Journal of Press/Politics*, the *International Journal of Strategic Communication* and the *Journal of Computer-Mediated Communication*.

*Geographic diversity.* As so much of the research I came across was based on U.S. media and politics, preference was given to Canadian scholarship. I also searched out articles that looked at Twitter and media interaction in other regions of the world in order to understand the broader context for my research problem.

**Grey literature.** A limited amount of grey literature was also included in this study such as news articles from respected media organizations, conference papers and resource books, as

well as data from technical and industry research reports to gather relevant demographic and statistical information that provided background information for context.

**Organizing and Categorizing the Data.** The gathered articles were stored as searchable PDFs and managed through an organizational spreadsheet which listed the inclusion parameters, as well as categories such as brief summaries, descriptions of themes, research methodologies, theoretical frameworks, interesting quotes, numbers of citations and other pertinent information that helped in choosing the final items for inclusion in this review.

While more than 150 items were eventually collected, for the sake of space and brevity, items included in this literature review were chosen to provide a representation of the range and diversity of disciplines, perspectives, theoretical approaches and research methodologies; and that would illustrate the evolution of discussion within each area of study relevant to the research problem.

### **Review of the Literature**

Although Twitter has been in existence for less than 15 years, there is already a vast and varied body of scholarly work surrounding it (Logan & Molyneux, 2018; Murthy, 2018; Rogers, 2014). Academics have studied everything from Twitter's psychological impact on individuals (Gearhart & Kang, 2014; Morris et al, 2012) to its effects on society, media, pop culture and politics (Murthy 2018; Rogers, 2014), and of course, its role in the dissemination of disinformation and fake news (Allcott & Gentzkow, 2017; Lewis & Molyneux, 2018; Marwick & Lewis, 2017). In order to maintain focus, I will limit my literature review to Twitter's evolution as a communication channel, and the often overlapping themes of its relationship with journalism, electoral politics and agenda setting in the formation of public opinion.

Given the sociopolitical context described in my introductory chapter, I will begin with a more in depth study of how and why journalists use Twitter. Certainly a significant amount of the scholarship I reviewed attempts to do so in order to understand the platform's possibly undue influence in newsrooms.

**Twitter and Journalism.** The University of British Columbia's Alfred Hermida (2010) proposed that Twitter is a form of "ambient journalism." That is, a public space where news is always present, "enabling citizens to maintain a mental model of news and the events around them. In this context, Twitter can be considered [a computer mediated] awareness system," (p. 301). Murthy (2018) expanded on this idea, suggesting Twitter "has also influenced some of the ways in which journalists conduct news work. Specifically, as an ambient news space where news is in the air, Twitter-savvy journalists with their fingers on the social media pulse are often on the lookout for newsworthy scoops. They can contact Twitter users who they think are breaking interesting news" (p. 45).

Twitter was quite quickly embraced by mainstream media and the blogosphere according to San Diego State University's Noah Arceneaux and Amy Schmitz Weiss (2010). In "Seems stupid until you try it: press coverage of Twitter, 2006–9," the journalism and media studies researchers drew on the social constructionist theory of technology. Social constructionism is a theory of knowledge in sociology and communication studies that examines the development of jointly-constructed understandings based on shared assumptions (Leeds-Hurwitz, 2009). Thus, Arceneaux and Schmitz Weiss (2010) suggested "that press coverage is not simply a transparent method to distribute information but can function as a force of change itself, influencing the ways these technologies are diffused, utilized and regulated" (p. 1263). Using the grounded theory approach, they analyzed a purposeful sampling of newspaper, newswire and magazine

stories and blog posts to determine how the media explained and characterized Twitter between March 1, 2006 and March 31, 2009. They concluded that despite some early skepticism and mockery, both traditional and online media, such as weblogs, generally supported and promoted Twitter from fairly early on.

*Twitter as a journalistic tool.* In a case study of how journalists in three South African newsrooms used Twitter and Facebook, Marenet Jordaan (2013), concluded, that “the journalists might have viewed these media as separate from their usual activities, routines and cultures within the newsroom, but from a social constructionist point of view, this researcher would argue that being immersed in social media forced the journalists to alter the way they approached news selection and presentation, even if they did not reflect internally about it” (p. 32). Shannon McGregor and Logan Molyneux (2018) conducted an online experiment involving about 200 journalists who were asked to rate the newsworthiness of headlines from the Associated Press (AP) website and tweets that contained AP headlines that had been manipulated to look like anonymous tweets. Journalists who said they relied on Twitter in their reporting ranked the anonymous tweets as high or higher than the AP stories, indicating a normalization of Twitter to the point where it impacted news judgement and coverage decisions, especially among those who were regular users of the platform and who may not have had as much journalistic experience. The author’s wrote, “This may have negative implications, such as pack journalism, but we also see positives, as Twitter may conduit a wider array of voices into the mainstream news agenda,” (p. 1).

It is clear then, that traditional media has recognized the benefits of Twitter in a number of areas, including politics, with the help of early adopters like former US President Barack Obama, as “embracing the vision of an expanded participatory democracy” (Arceneaux &

Schmitz Weiss, 2010, p. 1270). This optimistic view of Twitter as a democratizing tool is found in some earlier scholarship that cites citizen journalism as a source for stories and contacts (Hermida 2010; Murthy, 2018; Small, 2011). But there now also appears to be a recognition that, as they always have, journalists tend to stick with traditionally elite sources and opinion leaders on Twitter (Lewis & Molyneux, 2018; Wallsten, 2015). California State University's Kevin Wallsten took a quantitative approach to analyzing how certain print media outlets used Twitter during the 2012 U.S. election. He looked at 5,000 newspaper and wire stories to assess how much political reporters used Twitter to find sources and story ideas by tracking newspaper mentions of tweets during the campaign. The findings showed that only 5% of the articles mentioned Twitter, but more than half of those were government officials, politicians or other media professionals, suggesting that traditional media is maintaining its gate-keeper role. The study also presented a number of other contributions to our understanding of political communication in the age of Twitter, including the fact that televised political events generated huge amounts of Twitter activity, and that journalists used these millions of tweets to not only “monitor the congealing wisdom” (p. 37) about campaign events but to also populate their articles with sources. Wallsten provides some interesting insights into how journalists use Twitter, but some of his conclusions at that time seemed to make a bit of a leap based on the low percentage of articles that actually mentioned Twitter in his dataset. Of course, 2012 was an entirely different epoch in social media time and some of his conclusions about Twitter as a journalistic tool appear somewhat predictive and are more valid today (Lewis & Molyneux, 2018; Pérez-Curiel & Pilar Limón Naharro, 2019).

Meanwhile, Logan Molyneux & Rachel Mourão (2019) studied how political journalists and media organizations used Twitter during the first U.S. Presidential debate in 2016. They

found that most “professionals” didn’t interact much with their followers, preferring to stay in the “echo chamber” with their fellow journalists. They wrote, “They may do well to re-examine their practices so as to be more in tune with audience needs and feedback during elections, a time when the flow of (accurate) information is crucial to decision-making in democracy.” (2019, p. 263).

*Twitter as vox populi or the voice of the people.* There is considerable evidence suggesting that journalists have a tendency to use Twitter to gauge public opinion (Anstead & O’Loughlin, 2015; Beckers & Harder, 2016; Lewis & Molyneux, 2018; Murthy, 2018). Belgian media scholars Kathleen Beckers and Raymond Harder (2016) found that journalists on Dutch and Flemish news websites routinely used Twitter as a proxy for public opinion, generalising to larger groups, especially when strong, mostly negative, emotions were expressed. They found 38.2% of their sampled items used Twitter to refer to common people, and 69.2% of the news items were Twitter-initiated. The authors speculated that journalists go to Twitter for this kind of man-on-street angle in their stories because it is a much less time and labour-intensive way to represent non-elite voices, although their study did not specifically seek out the motivations of journalists. Media scholar Nick Anstead from the London School of Economics and Political Scientist Ben O’Loughlin from the University of London explored the relationship between social media and public opinion by doing a case study of the 2010 UK General Election. They employed a three-stage grounded theory approach. First was a qualitative analysis of news coverage referencing social media during the 2010 election, which suggested that social media was used by journalists to reflect public opinion as “semantic polling.” The second stage took a deeper dive through interviews with social media researchers, opinion pollsters and journalists. Finally, the authors used their dataset to rethink the idea of public opinion. They suggested



including social interaction, conversations and temporal dimensions when gauging public opinion rather than simple expressions of political preferences. They wrote, “This means that public opinion must thus be understood through both realist and constructivist lenses because of the reflexivity built into this infrastructure” (p. 216).. Finally, Lewis & Molyneux (2018) in their comprehensive literature review addressed this phenomenon critically and suggested that Twitter be regarded as “a public” rather than “the public,” when being used as a source for stories or to represent public opinion.

**Formation of Public Opinion.** Scholarly interest in how mass media influences public opinion has been an area of intense study since the early days of newspapers, radio and television broadcasts (Cohen, 1963; McCombs & Shaw, 1972). The advent of social media, including Twitter, as another communication channel has only intensified interest in how public opinion is formed (Anstead & O’Loughlin, 2015; Lewis & Molyneux, 2018; Murthy, 2018). This is apparent in a number of disciplines, generating a number of theories of communication, knowledge dissemination and opinion formation.

*Social cognitive theories.* From a psychological perspective, social cognitive theories explore the impact of mass and social media on how individual people formulate knowledge and opinion. Alberta-born Albert Bandura, Professor Emeritus at Stanford University, produced a seminal work in 1994 looking specifically at the effect of television on behaviour and the cognitive processes that determine “which environmental events will be observed, what meaning will be conferred on them, whether they leave any lasting effects, what emotional impact and motivating power they will have, and how the information they convey will be organized for future use” (p. 3). He proposed a three-way reciprocal causation model where personal, behavioural, and environmental determinants all interacted with one another in a self-regulatory

triangle. Bandura's ground-breaking work can be applied to social media use in that it would allow us to examine how people act, react and are motivated by their interactions with each other in social networks such as Twitter.

Social media has also been studied as a heuristic tool that allows people to develop mental shortcuts to make judgments quickly and efficiently (Chaiken, 1980; Gearhart & Kang, 2014; Morris et al, 2012). One such study was conducted by Seok Kang and Sherice Gearhart, who performed an online experiment at two Texas universities where participants were shown one hard news and one soft news video story containing man-on-the-street interviews versus Twitter and/or Facebook comments. The respondents were then questioned about perceptions of journalistic quality, and civic and professional credibility. Results revealed that social networking comments, as heuristic cues, played a substantial role in affecting audiences' evaluation of the news. The authors concluded that Twitter comments possessed journalistic value. Because the subjects were all from universities, the sample was limited to particular educational and socioeconomic segments of the population, making the results less generalizable. However, the study is valuable in showing that those news audiences viewed social media, especially Twitter, as a valid source for news; and that journalists were aware of this fact.

*The public sphere.* Moving from the psychological to a sociological brings us to notions of "the public" or the "public sphere" as generally understood to mean the place where public opinion and sentiment are formed (Habermas, 1991). Iconic German sociologist and philosopher Jürgen Habermas (1991) developed the concept of the "public sphere" to mean a community "made up of private people gathered together as a public and articulating the needs of society with the state," (p. 176). The idea of the public sphere is foundational to theories of political communication and is more relevant than ever in the era of social media. But various

communications scholars have since posited that “the” public sphere as a manifestation of public opinion needs to be reconceptualized into a number of competing and/or conflicting “publics” (Kruckeberg & Vujnovic, 2010; Lewis & Molyneux, 2018; Murthy, 2018; Self, 2010).

According to media and civil discourse expert Charles Self (2010), an erosion of trust has occurred due, at least in part, to “social networks of interactive media with murky sourcing,” (p. 90). Public relations scholar Dean Kruckeberg and journalism professor Maria Vujnovic (2010) described knowledge diffusion through social media as a “difficult-to-explain-and-predict chaos theory” (p. 122). While these academics made strong cases to be wary of Twitter as “the public sphere,” traditional media’s reliance on it suggests that it should not be ignored as a platform for civic discourse, as it may play a significant role in agenda setting by both politicians and traditional media.

*Agenda setting and intermedia agenda setting theories.* Agenda setting theory explores how mass media has the power to determine the important issues of the day (Cohen, 1963; McCombs & Shaw, 1972). Bernard Cohen (1963), a relatively early scholar of public opinion, famously wrote that the media “may not be successful much of the time in telling people what to think, but it is stunningly successful in telling its readers what to think about” (p. 13). Maxwell McCombs and Donald Shaw, journalism professors at the University of North Carolina, Chapel Hill, conducted the seminal study of the 1968 US Presidential election, developing the formal agenda setting theory of the news media. After surveying a number of Chapel Hill voters, they concluded that news media influenced the political agenda by filtering and shaping the issues considered important by the public during the election campaign.

Stuart Soroka (2002) wrote, “The study of agenda-setting is the study of issue salience – the relative importance of an issue on an actor’s agenda. Moreover, it is the study of the rise and

fall of issue salience over time, and of the relationships between actors' agendas. At a basic level, agenda-setting analysis seeks to draw empirical links between actors' agendas. As a body of literature, it's more ambitious purpose is to track public issues and trace processes of political communication," (2002, p. 5). Although this book predates the insertion of Twitter into civic discourse, his focus on Canadian media and issue salience provides a solid foundation for investigating my own research problem.

Over time, agenda setting theory was refined to account for the ways in which different types of media influenced each others' agendas through the transfer of content, as intermedia agenda setting theory (Groshek & Groshek, 2013; Harder et al, 2017). American emerging media scholars Jacob Groshek and Megan Clough Groshek (2013) wrote, "Agenda setting is no longer conceived of as only a top-down process from (mainstream print and broadcast) media to audiences, but also as a dynamic process where, under certain conditions, citizen reporting advanced in online spaces can give shape and definition to media and policy agendas among the public," (pp. 16-17). They conducted a time series analysis of articles in *The New York Times* and on CNN with stories and topics appearing on Facebook and Twitter, in order to understand the reciprocal agenda-setting effects of the different media platforms. Their findings revealed that social media platforms had varying degrees of impact on the political agendas formed by traditional media, and vice versa depending on the specific tool and topic in question. The study provided vital understanding of the intersection between traditional and social media around specific events, particularly elections.

Several other studies suggested that while there is definitely a bidirectional flow between Twitter and traditional media, intermedia agenda setting tends to still be dominated by traditional media organizations, which are often necessary for credibility and legitimacy (Conway et al,

2015; Conway-Silva et al, 2017; Conway-Silva et al, 2018; Harder et al, 2017; Su & Borah, 2019). But many of these studies also suggested that Twitter does have an effect on issue salience by bringing attention to overlooked and underreported topics and breaking news stories (Lewis & Molyneux, 2018; Murthy, 2018; Rogstad, 2016; Small, 2011).

User-generated content from social media can also create reverse agenda setting in that it garners attention from mainstream media, as opposed to the more bidirectional flow of intermedia agenda setting. S. Mo Jang, Yong Jin Park and Hoon Lee (2017) are a multidisciplinary team of scholars in journalism, communications and big data analytics. They used the Ice Bucket Challenge campaign to examine how the temporal dynamics of user-generated agendas changed over time, comparing the level of issue attention before and after the campaign in both social and traditional media. They found that the intermedia process evolved over time along with the issue-attention cycle, observing a round-trip intermedia agenda setting process where the direction is reversed as the agenda waxed and waned.

*Amplification and attention hacking.* Reverse agenda setting can also be seen as a form of amplification within the attention economy (Marwick & Lewis, 2017). Zhang, Wells, Wang and Rohe (2018) from the University of Wisconsin looked at the rise of Donald Trump through this lens. In their study, Twitter users' actions, such as "liking" and "retweeting" were presented as amplification that could increase the attention paid to a person or message, thus attracting the attention of the mainstream media. The team looked at a random sample of 377,725 (3%) of Trump followers' profiles, using spectral clustering based on social network similarity. They found that, although the most extreme far-right supporters, including white nationalists, made up only 11% of the sample, they accounted for 60% of all of Trump's retweets. By comparison, users in apolitical clusters, which made up almost 50% of the sample, produced fewer than one

retweet in five. The results highlighted the importance of distinguishing analytically between those who are paying attention and those who are also engaged in amplification. The authors concluded that if retweets and likes were used to gauge newsworthiness, they may not be merely indicators of public interest, but strategies to influence media as a form of reverse agenda setting (Zhang et al, 2018).

This phenomenon can also be called “attention hacking” as described by Alice Marwick and Rebecca Lewis (2017) in *Media manipulation and disinformation online*, by the non-profit Data & Society Research Institute in New York. This extensive report shines light on the vulnerabilities within the new media ecosystem that enables the “alt-right” and white nationalists to manipulate traditional media and amplify their messages by gaining viewer and mainstream media attention and/or political influence due, in part, to novelty and sensationalism.

**Twitter and Politics.** When it comes to politics, this literature review will concentrate on two research areas: how much Twitter predicts and/or reflects public sentiment during elections; and its agenda-setting and intermedia agenda-setting roles.

*Can Twitter predict election outcomes?* One of the most prolific areas of academic research is around Twitter’s predictive capabilities during elections as a reflection of public sentiment during political contests. Implicit is the notion that Twitter can act as a cheaper, easier form of opinion polling (Bovet et al, 2018; Murthy, 2015; O’Connor et al, 2010; Sanger & Warin, 2018; Tumasjan et al, 2010).

Two fairly early studies, now famously debunked, suggested that Twitter was a straight forward mirror of general public and/or political sentiment. Computer Science Professor Brendan O’Connor (2010) and his multidisciplinary team from Carnegie Mellon University found that there was up to an 80% correlation between Twitter sentiment and multiple public opinion

surveys in the US during 2008 and 2009 on topics such as presidential approval ratings and consumer confidence. Meanwhile, German scholar Andranik Tumasjan (2010) found that political deliberation was characteristic of Twitter discourse and reflected the offline political landscape in the results of the 2009 German federal election. Both studies used sentiment analysis software on large Twitter message datasets to come up with their findings. But Spanish computer scientist Daniel Gayo-Avello (2011) and his team were unable to replicate the results of the German study when transposed on to the 2010 US Congressional elections. For the O'Connor study, he suggested that the methodology was flawed since it used simplistic positive-negative sentiment analysis software that failed to take into account the tone of a tweet such as sarcasm or humour (2012). After doing a comprehensive annotated bibliography on the topic, Guy-Avello (2012) concluded that most of the authors he reviewed seem to be more interested in claiming positive results than in providing sound and reproducible methods; that the literature reviews were biased toward those studies supporting the claim that Twitter can predict election outcomes; and that the predictive power of Twitter regarding elections had been greatly exaggerated. He suggested a tendency towards cherry-picking positive results due to a sort of academic pack mentality rooted in the optimism and excitement generated by new technologies with the potential to aid in positive societal change such as increasing participatory democracy. (Gayo-Avello, 2012a, 2012b). He writes:

In paper after paper, at conference after conference, we were told the impossible: that applying crude sentiment analysis methods to noisy data produced by a biased and self-selected sample of the population is amazingly accurate when predicting elections — and not only elections. You would expect some disbelief to develop within the community. Yet, with regard to this topic it seems that the burden of proof lies on those of us trying to explain that the emperor has no clothes... That is, that papers with positive results need not be methodologically impeccable to be believed, or that showing how a specific method has been valid once is evidence of validity for the idea in general? This is wishful thinking at best or cargo cult science at worst. (Gayo-Avello, 2012b, para 21-23)

Despite, or perhaps because of Gayo-Avello's crusading, Twitter scholars have continued to study its relationship to election results, though with more caution and nuance (Bovet et al, 2018; Jungherr, 2016; Makazhanov, Murthy, 2015; Rafiei et al, 2014). In a quantitative study of tweets using an automated sentiment analysis algorithm for specific hashtags during the 2012 Republican presidential primaries, Murthy (2015) asked if tweets were predictive, reactive, or just a form of buzz during elections. He analyzed 347,538 tweets which were election-related (either by relevant hashtags, such as #gopprimary, #gopdebate, and #election or explicit candidate mentions) and concluded that tweets tended to be more reactive than predictive, and that Twitter buzz did not necessarily translate into success at the ballot box.

However, DiGrazia, McKelvey, Bollen and Rojas (2013) showed a statistically significant association between tweets that mentioned candidates for the U.S. House of Representatives and their subsequent electoral performance. They analyzed 542,969 tweets mentioning candidates selected from a random sample of 3,570,054,618 and found a correlation between the number of tweet mentions and the actual election results. While the authors did not claim causation or account for sentiment, they noted that their findings persisted even when controlling for incumbency, district partisanship, media coverage of the race, and demographic variables, concluding that reliable data about political behavior could be extracted from social media.

A study from the Social Data Science Lab at Montreal's Centre for Interuniversity Research and Analysis of Organizations (CIRANO) did quantitative analysis to discover which topics resonated on Twitter during the 2014 Quebec provincial election, and whether they could help explain the unexpected overthrow of Parti Quebecois Premier Pauline Marois (Sanger & Warin, 2018). Collecting about 672,000 Twitter messages using the hashtags #assnat (National



Assembly), #polqc (Québec politics) and/or #qc2014 (Québec 2014), William Sanger and Thierry Warin identified the four most important topics as the economy (35.4%), society (26.6%), ethics (20.1 %) and independence (17.8%). They then compared how the main political parties were quantitatively associated with each topic and tracked it over time. They found the incumbent party was most closely associated with the least “important” topic of Quebec independence and that the winning Liberal Party got the most mentions around economy and society. Sanger and Warin (2018) explicitly stated that they were not looking at the predictive capabilities of Twitter, instead observing which trending topics were associated with particular political parties, looking at the popularity associations as a way to understand the outcome of the election. They noted that using Twitter to understand public opinion could be cheaper and easier than traditional polling (p. 261).

Various algorithmic models have also been used to test for correlations between political sentiment on Twitter and real-world opinion polling. Theoretical physicists Alexandre Bovet, Flaviano Morone and Hernán Makse combined the statistical physics of complex networks with natural language processing and machine learning to analyze the behavior of Twitter users during the 2016 US Presidential election. They found a high degree of agreement between their measured Twitter opinion trends about candidates Hilary Clinton and Donald Trump and *The New York Times* polling national average, noting that the opinion trend on Twitter is instantaneous and anticipates the NYT aggregated surveys by 10 days. It's worth noting that their complex machine learning algorithm produced far more sophisticated sentiment analysis than the debunked study by O'Connor et al (2010). Closer to home, Davood Rafiei and Muhammad Waqar, computer scientists from the University of Alberta, worked with Aibek Makazhanov of the Nazarbayev University, Kazakhstan to build an algorithmic prediction model. After creating

a character profile of each political party, they tested it by collecting Twitter profiles and messages during the 2012 Alberta provincial and 2013 Pakistani general elections. They found that Twitter content and user behavior during an election campaign could be used to predict the political preferences of users. They also found that predicted preferences changed over time, often in conjunction with campaign-related events. They compared the preference change of silent users to that of vocal users, and found the latter were more reluctant to change their preferences during the campaign. The point of this study was to test their predictive algorithm rather than to actually study the political preferences of Twitter users, however it does provide a useful snapshot into the relationship between Twitter participation and political preferences and how they may manifest in election results.

Finally, in his 2016 systematic review of Twitter and election campaigns, German scholar Andreas Jungherr looked at 127 studies addressing this topic. He noted that the research tends to be fragmented, lacks a common body of evidence and shared approaches to data collection and selection. "No clear picture emerges with regard to the connection between Twitter use, public attention on Twitter, and popularity or electoral chances...Thus, if there is a relationship between Twitter use and electoral success, this seems to be an indirect one, highly dependent on the respective electoral context" (2016, p. 74-76). On methodology, he concluded "qualitative work allows for a discussion of transformations in practices of political actors - such as politicians and journalists - that might remain hidden in large aggregates of data. Content analyses of messages, interviews with political actors and participants in political publics, and participant observation of the use of digital tools in the conduct, performance, and coverage of politics thus hold strong potential for further research" (2016, p. 85).

Posegga and Jungherr (2019) followed up on the latter's literature review in the mixed method study, discussed in chapter 1. They compared Twitter, and the public and media agendas during the 2013 German election and found little commonality between Twitter issue salience and the public agenda; and that political discussion on Twitter tended to be more connected to mass media coverage, but attributed it more to the attention, interests, and motivations of Twitter users rather than to mass media's agenda setting capabilities.

These later studies indicate rather mixed results regarding Twitter's predictive and representative sentiment capabilities around elections. However, it is clear that Twitter can have an intermedia impact on mainstream media coverage, which explains, in part, Twitter's popularity among political operatives (Enli, 2017; Pérez-Curiel & Limón Naharro, 2019).

*How political operatives use Twitter.* Another area of academic interest is in how politicians, election campaigns and party supporters use Twitter. The most obvious use of social media in general, and Twitter in particular, is as a communication channel for public relations, marketing, advocacy and raising awareness of issues (Conway et al, 2015; Enli, 2017; Pérez-Curiel & Limón Naharro, 2019).

Norwegian scholar Gunn Enli (2017) investigated the Twitter strategies of Hillary Clinton and Donald Trump during their US 2016 presidential election campaign by analyzing Tweets posted on the official accounts of the two candidates. The posts were then manually coded to analyze for traditional/professional verses amateur/authentic styles of communication. Enli noted that the professional and amateur designations were not value judgements but stylistic descriptors. She found that 82% of Clinton's tweets are categorised as traditional/professional, while 55% of Trump's tweets were coded as amateur/authentic. She observed that Trump's

Twitter strategy helped to construct his image as an authentic, outspoken outsider, which may have had an agenda-setting impact when that same narrative was carried in traditional media.

Spanish journalism scholars Conchita Pérez-Curiel and Pilar Limón Naharro (2019) also looked at Trump's impact on both the media and his Twitter followers. They found him to be both a main source of news and a political influencer on media and public opinion based on quantitative and qualitative content analysis of his tweets, front page headlines, and online user metrics. They concluded, “The media reproduce [his] persuasion and propaganda strategies... [and] dedicate their front pages to the President and to the issues to which he gives priority in his daily tweets, irrespective of whether or not they have anything to do with current affairs” (P. 71). But they do note that Trump is a rather unique individual who is particularly suited to communicating on Twitter, and other politicians may not achieve the same level of success in influencing both the media agenda and public opinion (Pérez-Curiel & Limón Naharro 2019).

There are also studies looking at how and why non-professional individuals use Twitter to try to influence political opinion (Bovet et al, 2018; Murthy et al, 2016; Yardi & Boyd, 2010). For example, Joel Penney (2016) conducted a qualitative case study to examine users' motivations for participating in viral politics (2015), and whether they are trying to influence their Twitter peers in this way. Using a purposeful sampling strategy, he conducted in-depth interviews with 25 people who posted and retweeted a popular satirical YouTube video called *Will the Real Mitt Romney Please Stand Up!* He concluded, “While some who engage in this activity enthusiastically embrace goals of persuasion, others opt for alternative conceptual frameworks, such as fostering citizenship by informing others and sparking deliberative dialogue, that seemingly avoid the manipulative connotations of political marketing,” ( p. 72). In

their study, Bovet et al (2018) observed a difference in the behavior of Twitter users supporting Donald Trump and those supporting Hillary Clinton. They found that Trump supporters were generally more active in their support, while Clinton supporters were much larger in number but less active, confirming previous studies that suggested right wing Twitter users are more active and tightly interconnected, possibly influencing opinion trending on Twitter.

*Polarization and echo chambers.* Some studies suggest that political polarization and the echo chamber effect are prevalent in social media, including Twitter (Allcott & Gentzkow, 2017; Garrett, 2019). However, there isn't universal consensus on the issue. In a study about incidental news consumption on social media by youth in Sweden, Annika Bergström and Maria Jervelycke (2018) concluded that the wide variety of news being consumed on social networking sites suggested they were actually a mechanism for opening up filter bubbles "if the phenomenon even exists" (p. 594) by exposing social media users to the interests and opinions within their social media networks, including influencers.

Harvard University's Sarita Yardi and Danah Boyd tested the principle of homophily on Twitter as a possible explanation for polarization and extremism. Defining homophily as the tendency for people to seek out or be attracted to those who are similar to themselves, they conducted a case study of the shooting of George Tiller. He was a late term abortion doctor in Kansas, and they explored the subsequent conversations among pro-life and pro-choice advocates on Twitter. Results revealed both homophily and heterogeneity in conversations. That is, interactions between people who were like-minded and those who had differing opinions. Although people were more likely to interact with others who share the same views, they did actively engage with those with whom they disagreed. The authors found that replies between like-minded individuals strengthened group identity, while replies between different-minded

individuals reinforced ingroup and outgroup affiliation. They concluded that people were exposed to broader viewpoints than they were before, but were limited in their ability to engage in meaningful discussion. This research suggested that, while people's opinions don't shift easily based on exposure to different viewpoints, Twitter users may still be exposed to a diversity of opinion.

In Canada, our multi-party parliamentary system presents slightly different circumstances for polarization than the US two-party dichotomy. Ryerson University's Anatoliy Gruzd and Jeffrey Roy of Dalhousie University conducted social network analysis to ascertain if there was political polarization on Twitter during the 2011 Canadian federal election. They discovered a clustering effect around shared political views among supporters of the same party, but there was also evidence of cross-ideological connections, especially between the left-leaning Liberal, NDP and Green Party supporters. When hostility was apparent, it tended to exist between Conservative Party supporters and the other left-leaning partisans. It is worth noting that even in Canada, the general political climate has become far more polarized since 2011 with far-right Trump supporters attempting to negatively impact Justin Trudeau's campaign on Twitter during the 2019 Canadian federal election (Stanley-Becker, 2019).

### **Analysis and Key Findings**

This wide-ranging literature review suggests a near consensus with regard to the normalization of Twitter as a tool for journalists, politicians and electoral campaign operatives. There are also clear indications that non-professional participation in political discourse is generally by those who have a high interest in politics and civic affairs, and have access to digital technology due to higher levels of education and socioeconomic status. Thus, Twitter should still be questioned as representative of general public opinion. However, the user-generated content

on the platform may have agenda-setting and intermedia agenda-setting effects on traditional media. Scope for future research lies in the discussion around Twitter as a public sphere and public opinion formation and the intermedia agenda setting between Twitter and traditional media, especially in Canada where there is significantly far less scholarship than in the US. This area of study is of particular value considering the differences between the Canadian and American media and political systems, the latter of which saturate Canada's broadcast airwaves.

When considering research about the intersection between Twitter and Canadian media, some of the microblogging platform's limitations should be kept in mind, such as the digital divide and increasing evidence of viral fake news and "attention hacking" by bots and bad actors in an attempt to influence media coverage.

In terms of methodology, big data set quantitative analysis appears to be valuable in identifying intermedia agenda setting correlations, while qualitative content analysis provides deeper insight into the motivations and habits of the research participants, whether they be journalists, political operatives or general Twitter users.

This literature review provides a broad overview of the ways in which both journalists and non-professional Twitter users conduct political discourse on the platform, and how that may be sourced by traditional media outlets. This will provide the foundation for my capstone project, and how it can contribute to the body of scholarly research in the field.

## **Conclusion**

The purpose of this chapter was to present a sample of the range and diversity of the existing literature and research into the relationships between Twitter, traditional media and public opinion. The goal was to establish and justify the use of agenda setting and intermedia agenda setting theoretical approaches to this capstone study, as well as the research design used

to examine the primary research problem. That is, how Twitter may or may not influence public opinion through *The Globe and Mail* and *The National Post* and vice versa by investigating the political coverage on both types of media and their influence on each other during the 2019 Canadian federal election.

In conclusion, during the past decade, a great deal of academic research has been produced looking at Twitter and its relationship to journalism, politics and public opinion. However, there is a big gap in research from a Canadian perspective. I believe my capstone project will contribute to the scholarship in this area in a meaningful way in order to enhance understanding of how public opinion is being affected by Twitter through traditional media. As such, understanding these relationships is key to maintaining healthy civic discourse, which is fundamental to democracy.

The following chapter will describe the research design and methodology used in this capstone project.



### **Chapter 3: Research Design and Methodology**

This chapter will provide an overview of the research design and methodological approach chosen for this case study of the interaction between Twitter and traditional media and its influence on public opinion during the 43rd Canadian federal election campaign. After the primary research problem and the research questions are revisited, the chapter will provide a brief explanation of how the theoretical frameworks are applied to the research investigation and analysis. I will then provide a rationale for the case study mixed method approach to the research. Data gathering methods will also be described, along with the procedures used to select content from Twitter and two Canadian newspapers. The software tools used in this study for data gathering and analysis - ATLAS.ti and Data Miner - will also be discussed, followed by a description of the coding scheme developed to analyze the data for content analysis. Finally, I will present my strategies to ensure reliability and validity, as well as some of the challenges and limitations of this capstone project.

#### **Research Problem and Questions**

This study's primary research problem explored to what extent, if at all, Twitter appeared to influence political coverage by traditional media during the 2019 Canadian federal election, and by extension, public opinion. Informed by the literature review, and using the theoretical frameworks of intermedia agenda setting and agenda setting, this study used the mixed methods approach. First simple count quantitative analysis to establish and rank the most salient issues; then qualitatively content analysis was applied to understand the relationship between Twitter and traditional media and how that interaction may have influenced public opinion over the course of the election campaign. In order to investigate the broader research problem, the study posed the following research questions:

RQ1: What were the most salient issues covered by traditional media during the 2019 Canadian federal election?

RQ2: What were the most discussed topics on Twitter tagged with #cdnpoli, #elxn43 or #elxn2019 during the election campaign?

RQ3: How did the discussion of the most salient issues in both types of media influence each other during the course of the election campaign?

### **Intermedia Agenda Setting, Agenda Setting & Issue Salience**

The research design to be detailed below, works within the frameworks of the agenda setting and intermedia agenda setting theories. As discussed in the literature review, agenda setting theory explores how mass media may influence public opinion by determining which political issues can become prominent or “salient” to the general public (McCombs & Shaw, 1972). Soroka (2002) defined an issue as “whatever is in contention among a relevant public,” (p. 6), but asserted “contention should be taken to mean that conflict may, but need not, exist. Rather, all that is required is an observable degree of discussion or concern” (p. 6). He goes on to discuss an agenda as a ranking of the relative importance of various public issues which vary in importance or salience relative to other issues. “An agenda, therefore, can be measured by making a list of issues in order of salience” (Soroka, 2002, p. 6). This interpretation of issue salience in agenda setting provided a useful framework by which to loosely gauge the ways in which public opinion is informed by the interaction between Twitter and traditional media, per the intermedia agenda setting theory. This latter theory looks at the reciprocal influencing of different types of media through the transfer of content, (Harder et al, 2017; Rogstad, 2016) which in this case study, would be Twitter and Canada’s two national newspapers.

These theoretical frameworks guided me to compare the political coverage from the *G&M* and the *NP* to the most frequently discussed issues on Twitter in order to explore whether the most salient topics on Twitter were similar to those in the newspapers; and how the two types of media may have influenced each other over time during the election campaign. I then analyzed the content through the lens of agenda setting theory to establish whether or not the salient issues on Twitter as a “public sphere,” (Habermas, 1991) were reflected in the outcome of the election as observed in some previous studies (Bovet, et al, 2018; DiGrazia et al, 2013; Sanger & Warin, 2018). Additionally, I did an impressionistic examination of sentiment by Twitter users to ascertain whether Twitter posters’ opinions towards the main political parties were reflected in the final election results as seen in some previous studies (DiGrazia et al, 2013, Makazhanov et al, 2014; Small, 2010).

### **Case Study Approach**

This research project took the case study approach which is described by Denscombe (2010) as focusing on “one (or just a few) instances of a particular phenomenon with a view to providing an in-depth account of events, relationships, experiences or processes occurring in that particular instance” (p. 52). The case explored was the 43rd Canadian federal election campaign which ran for six weeks during the fall of 2019. The case study approach allowed for a more in-depth investigation of the relationship between traditional and social media with respect to political coverage during the campaign, using multiple data sources and a mixed method research technique. Quantitative content analysis in the form of a simple count of salient issues and expressed sentiment were used to explore if any correlations or associations existed between the most frequently occurring topics on new media Twitter and in old media newspaper articles. Then, qualitative content analysis of the documents was used to explore the relationships and the

whether the process of a possible transfer of content occurred between them from an intermedia agenda setting perspective (Groshek & Groshek, 2013; Harder et al, 2017). As political coverage in traditional media and political discourse on Twitter during an election campaign are typical occurrences (Jungherr, 2014), studying this particular election also allowed for a certain amount of theoretical generalizability (Denscombe, 2010) of the understanding of the broader research problem.

**Mixed Methodology: Quantitative and Qualitative.** Case studies allow for mixed method research in a single project which can provide a more complete and holistic understanding of the situation (Denscombe, 2010). My capstone borrowed elements from several earlier studies, including the two by Tamara Small discussed previously, which used Canadian political hashtags to identify topics of discussion on Twitter (2011) and quantitative simple count and qualitative content analysis (2010) to investigate the research questions. Also discussed earlier was the conference paper by Posegga and Jungherr (2019) which used mixed methods to analyze the political agendas on Twitter, media and the public during a German federal election. First, they analyzed correlations between the respective lists of ranked topics, then they conducted an in-depth comparison of the ten most prominent topics on the different agendas and analyzed patterns of divergence and correspondence between them. Finally, they extended this analysis by examining the time series of the mention volumes of the ten most prominent topics on the Twitter agenda to establish if topics on the Twitter agenda preceded, corresponded to, or followed their counterparts in the public and media agendas. Another study by Ferre-Pavia and Pareles Garcia (2015) conducted a mixed method investigation into the comparative informational capacity of the social issues on Twitter and in traditional media by using simple count quantitative and qualitative content analysis.

Finally, I also relied on two recent University of Alberta (U of A) MACT capstone projects to help guide the development of some of my methodology, including data gathering and coding processes. Kelly Spencer (2019) used qualitative inductive framing analysis of content in Twitter and newspapers to explore how traditional media and Twitter interacted to frame the controversy around the decision by the U of A to award an honorary doctorate to David Suzuki, a Canadian environmentalist, scientist and television personality. She found that frame prevalence was aligned between Twitter and regional newspapers while the coverage in the *G&M* prioritized different frames. Krista Stefan (2017) conducted an inductive exploratory study to examine how Twitter aided Naheed Nenshi's surprise win in the 2010 Calgary mayoral election. She used a mixed method approach, both qualitative and quantitative content analysis to explore the context of that municipal election, reviewing how it was reported about in the newspapers, and simple count and content analysis of how the candidates used Twitter during this campaign. She concluded that the circumstances of this election were rather unique in that there was no incumbent candidate and Nenshi was the only contender using Twitter extensively. This made Twitter a more reliable predictor of the election results than more traditional political communications tools, including news reporting.

I also took a two-step approach for my research methodology, using the type of simple count quantitative content analysis used by Small (2010), Ferre-Pavia and Pareles Garcia (2015) and Stefan (2017) to first establish the most salient topics by the frequency of their appearance in Twitter posts and in newspaper articles, thus establishing whether associations or correlations existed between the two types of media coverage. In the second step, qualitative content analysis was used for an in-depth exploration of the relationship between traditional media and Twitter by

ranking the most salient issues in each, the discourse around them in both newspapers and on Twitter, and how they influenced each other over time, similar to Posegga and Jungherr (2019).

### **Data Gathering and Sampling**

During the earlier stages of this project, a number of data gathering strategies for Twitter were explored. I initially contacted a social media analytics company to estimate the number of tweets posted using the three most common Canadian politics hashtags, #cdnpoli, #elxn43 and #elxn2019, during the election campaign according to the Politwitter.ca website (Small, 2011). The estimate of the number of total tweets was more than 600,000 which far exceeded the scope of this capstone project, and purchasing the service was prohibitively costly (Vicinitas Team, personal communication, May 19, 2020). So a sampling strategy was necessary to make the Twitter data collection more manageable.

**Constructed Week Sampling.** I decided on a non-random or purposeful sampling data collection technique known as “constructed week sampling,” which is frequently used in media studies (Riff, et al,1996) and has also been adopted by some Twitter researchers (Kim et al, 2018). It samples media content based on a different day of the week over the course of a number of weeks. This allows researchers to construct a full week over a certain period of time. Previous studies have indicated that constructed week sampling can reduce the possibility of over or underestimating certain days of the week, while providing a representative week’s worth of data over time (Kim et al., 2018; Riffe et al.,1993). In order to maintain consistency between the two types of documents collected, this sampling technique was applied to both the traditional and social media documents.

For the purpose of this study, the constructed week sample was collected during six weeks of the election campaign which ran from from September 11 to October 21, 2019.

However, in order to construct an entire seven-day week, and to get complete election coverage, I included both the Saturday and Sunday during week four of the election campaign, and Tuesday, October 22, 2019, the day after the election. Table 3.1 shows the sample collection days.

Week	Date of Sample Collection
1	Wednesday, September 11, 2019
2	Thursday, September 19, 2019
3	Friday, September 27, 2019
4	Saturday, October 5, 2019
4	Sunday, October 6, 2019
5	Monday, October 14, 2019
6	Tuesday, October 22, 2019

Table 3.1 Constructed Week Data Sample Collection Days

**Traditional Media: Newspapers.** For practical purposes, and to manage the scope of this capstone project, documents from traditional media were limited to Canada's two national, English language newspapers. The *G&M*, with a weekly readership of 6.4 million for its print and digital issues combined (Financial Post Staff, 2016), provided a sample of national political coverage ("About Us," n.d.). More regional variation on election issues was provided by the *NP*, which is fed by the Postmedia Network of local newspapers ("Postmedia," n.d.) with 10.7 million weekly per digital and print editions (Financial Post Staff, 2016).

Boolean logic search keywords and phrases such as "federal election," "Canadian election," "election race," "election issues," and "election controversy," were used to gather articles from these newspapers digitally archived in the Canadian Newsstream database set to the designated day per week.

**Social Media: Twitter.** While there are many social media networks which allow for political discourse, Twitter was chosen for the purpose of this study because of its ubiquitous use by journalists and political operatives, as discussed in the literature review (Arceneaux & Schmitz Weiss, 2010; Lewis & Molyneux, 2018; Murthy, 2018; Small, 201; Wallsten, 2015). The collection of Twitter data was conducted using its own advanced search function, which allows users to search with keywords, hashtags, users, specific dates or date ranges (Twitter, 2018 ). The advanced search also provides a “top tweets” filter, which uses a proprietary algorithm to produce search results based on the popularity of a tweet. The algorithm determines tweet popularity using a number of engagement factors such as shares, retweets, and replies (Twitter, 2018). The Twitter data collection date was set to each of the designated sample days, using the hashtags #cdnpoli, #elxn2019 or #elxn43 and the “top tweets” were collected or “scraped” onto a spreadsheet.

**Data Miner.** A data scraping tool called Data Miner was used to collect the “top tweets” content from the Twitter website, in order to manage the large amounts of data returned in the searches (Spencer, 2019). It offers a free Chrome extension which provides a number of public recipes that allow data from websites to be scraped and downloaded to spreadsheets (Data Miner, 2019). However, none of the public recipes quite met the needs of this project and so, a small cost was incurred in order to have a recipe professionally created that would collect information from the Twitter website, that included usernames, dates, hashtags, complete messages, numbers of retweets, likes and replies to each tweet, linked or subtweeted content, and user profile links. The search spreadsheets were downloaded and then checked against the original Twitter search scroll on the website, corrected for duplicate or missed tweets and other lost information, and



then converted to pdf files and uploaded to the ATLAS.ti data analysis software for coding, along with the newspaper documents.

**ATLAS.ti.** Once again, the Spencer (2019) study presented an effective way to collect, manage, code and analyze content with a software package called ATLAS.ti. Features of this software included storing all documents as searchable PDFs, easy coding and grouping of data, and a reporting toolset which assisted with data analysis in a format that could be exported back to a spreadsheet for further analysis, graphing and charting (Spencer, 2019). For organizational purposes, top tweets from each sample day were collected on one spreadsheet, however each tweet is considered a separate “document” from an analytical perspective. For the newspaper dataset, each article was downloaded as an individual pdf and considered a single document.

### **Data Analysis**

As a mixed method research project, this study utilized both quantitative and qualitative approaches to content analysis of the data collected from the newspaper articles and Twitter posts. The analysis was based on a specifically developed coding scheme that was applied consistently to both datasets:

**Coding Scheme.** The coding scheme involved a three-pronged, iterative process:

- *Initial coding:* identified the basic characteristics of each document such as whether tweets were posted by journalists/media organizations, political operatives, issue advocacy groups, celebrities or regular people; whether they were opinion or informational in nature; and whether they were overtly supportive of, or antagonistic towards particular politicians or political parties. Topics and issues were also identified in both the tweets and newspaper articles at this stage.

- *Categorizing the documents*: Both tweets and newspaper articles were then categorized as “informative” or “non-informative” per the definition used by Ferre-Pavia and Pareles Garcia (2015). Twitter posts were coded as “informative” when providing facts, data or elements to help contextualize an issue. “Non-informative” were classified as emotional, shared personal experience, opinion or commentary. For the newspaper dataset, news stories were “informative” while opinion columns and letters to the editor were “non-informative.” On Twitter, the straight sharing of news stories, opinion polls and other factual information such as event or television programming were categorized as “informative,” while “non-informative” were news stories shared with commentary, and calls to action such as voting appeals.
- *Grouping Codes into Issue Themes*. The third aspect of the coding process was grouping together codes that were thematically-related. This was done in order to allow for a more detailed and contextualized content analysis of the most salient issues in both types of media, and to account for crossover of topics between various issues. For example, pipelines could be discussed within the context of climate change, the economy and/or western alienation.

Once the coding process was completed, quantitative and qualitative content analysis was conducted on the data.

**Quantitative Simple Count.** I adapted a combination of techniques from the studies by Small (2010, 2011), Ferre-Pavia and Pareles Garcia (2015) and Stefan (2017) to my case study by counting the various codes, categories and groups to establish issue salience and rankings in the newspaper articles and Twitter posts in order to compare the agenda setting capabilities of both.

**Qualitative Content Analysis.** The qualitative content analysis involved an in depth exploration of the most salient issues in each type of media, comparing and contrasting how various subjects were discussed, how the two media types may have influenced each other on individual topics and over time from an intermedia agenda setting perspective per the Posegga and Jungherr (2019) study, but on a significantly smaller scale.

### **Reliability and Validity**

According to Denscombe (2010), reliability and validity require that the collected data be verified through accurate and precise recording; be appropriate for the purposes of the investigation; the research procedures and decisions be reasonable and replicable; and that the explanations derived from the analysis are reputable and correct. To meet these conditions, I checked and double checked the search results in both newspapers and Twitter to ensure that no documents were missed, and added in any that were. Regarding Twitter, I did multiple checks of the Twitter “top tweets” search against the information that was scraped by Data Miner. In order to ensure that my analysis was correct, I tried to stay open-minded to the data while collecting, coding and analyzing it concurrently. That enabled an iterative analytical process that remained open to unique or unexpected findings. I also kept the theoretical framework in mind throughout, using the literature to guide my analysis to ensure the legitimacy of my conclusions. I also tried to provide explicit and detailed accounts of my methods, and analysis to demonstrate how particular decisions were made and conclusions reached.

### **Ethics**

According to the University of Alberta Research Ethics Office, data collected from documents in the public domain, including newspaper articles and Twitter posts, do not require an ethics review and approval as long as there is no direct interaction between the researcher and

individual Twitter users. Research that is exempt from an ethics review includes studies that rely “exclusively on publicly available information that is legally accessible to the public and protected by law or where the information is publicly accessible and there is no reasonable expectation of privacy” (“Research Exempt,” n.d., para 4).

### **Challenges and Limitations**

There were several challenges and limitations that should be kept in mind in order to ensure academic rigour and the validity of the findings, especially where Twitter is concerned. There is increasing evidence of the rise of bad actors and bots on Twitter who are attempting to skew Twitter trends, public opinion and media coverage (Jeffrey, 2019; Marwick & Lewis, 2017; Stanley-Becker, 2019). A recent study from the Pew Research Centre explored the role bots play in sharing links on Twitter. Using a publicly available machine learning system called Botometer, the study examined 1.2 million tweeted links from the summer of 2017 and found that 66% were shared by suspected bots, or automated accounts that can generate or distribute content without direct human oversight (Wojcik et al, 2018). These “bad actors” have the potential to impact the results of this study by skewing the quantitative simple count analysis that will establish the most salient issues. I tried to mitigate this problem by coding the tweets individually and not relying on Twitter’s own metrics for popularity in gauging the “importance” of the topic. However, relying on Twitter’s “top tweet” algorithm, may still make my sample somewhat vulnerable to bots and bad actors.

Another practical challenge that arose due to the scope of this capstone project, was the constructed week sampling strategy which may have missed particular articles or twitter trends that occurred on non-sampled days of each of the six weeks.

**Conclusion**

The primary research problem of this case study is to understand how, and to what extent, Twitter appeared to influence political coverage by traditional media during the 2019 Canadian federal election, and by extension public opinion. In order to explore the problem and answer the research questions, this study used the case study approach and mixed method content analysis. Data was gathered from Twitter and the two national Canadian newspapers for a purposeful “constructed week” sample during the election campaign. It was then coded and analyzed to establish and compare the most salient issues and their rankings; and to explore possible associations and correlations between the issues in order to gain an in-depth understanding of the intermedia agenda setting affects and how Twitter might influence media coverage and public opinion by extension.

Findings and results will be presented in the next chapter.

## Chapter 4: Findings and Discussion

This chapter will present the findings and discussion from the content analysis of the data sample collected from Twitter and traditional media during the 43rd Canadian federal election campaign which ran for six weeks during the fall of, 2019. Guided by the literature review, and using the theoretical frameworks of agenda setting (McCombs & Shaw, 1972; Soroka, 2002) and intermedia agenda setting (Conway et al, 2015; Conway-Silva et al, 2018; Groshek & Groshek, 2013; Harder et al, 2017; Posegga and Jungherr, 2019; Su & Borah, 2019), this study explored the research problem of how, and to what extent, the social media platform Twitter appeared to influence political coverage by traditional media during the 2019 federal election, and by extension, public opinion. In order to investigate the broader primary research problem, the study posed three research questions:

RQ1: What were the most salient issues covered by the traditional media during the 2019 Canadian federal election?

RQ2: What were the most discussed topics on Twitter tagged with #Cdnpoli, #elxn43 or #elxn2019 during the election campaign?

RQ3: How did the discussion of the most salient issues in both types of media influence each other during the course of the election campaign?

I used the case study approach which allowed for mixed method analysis (Denscombe, 2010). The quantitative analysis involved coding for topics of discussion in traditional media and on Twitter and then doing a simple count (DiGrazia et al., 2013, Small 2011) to establish issue salience in each dataset. This was followed by qualitative content analysis which explored the intermedia agenda setting effects between Twitter and the sampling of traditional media. The goal of the study was to investigate possible associations and how their interactions may have

influenced each other and the formation of public opinion over the course of the election campaign.

For context, this chapter will provide a brief overview of the 2019 Canadian federal election before presenting the data in detail and the subsequent quantitative and qualitative content analysis. The discussion will then summarize the significance of the findings and the conclusions drawn from the study.

### **The Case of the 2019 Canadian Federal Election**

The 2019 Canadian federal election officially began on September 11, 2019 when the writ was dropped and ran until October 21st, the day of the 43rd federal election (Tunney, 2019). The four major parties that ran parliamentary candidates in ridings across the country were the incumbent Liberal Party of Canada (LPC) led by Prime Minister Justin Trudeau, the Conservative Party of Canada (CPC) with leader Andrew Scheer, Jagmeet Singh's New Democratic Party (NDP), and Elizabeth May's Green Party of Canada (GPC) ("2019 Canadian," n.d.) Additionally, the Bloc Québécois (BQ) competed for seats in Quebec under Yves-François Blanchet, and Maxime Bernier's People's Party of Canada (PPC) ran candidates in 315 out of 328 ridings ("People's Party," n.d.). The election was eventually won by Trudeau's Liberals who formed a minority government with 157 seats in the House of Commons. The LPC lost their majority from the 2015 election and won only 33% of the national popular vote, compared to Scheer's CPC who won 34% but were only able to form the official opposition with 121 seats in parliament ("2019 Canadian," n.d.).

Dubbed the "election of discontent," there were a number of scandals and controversial issues at play during the election including, accusations of political interference and ethical violations by Trudeau in the SNC-Lavalin scandal; and revelations that he had worn brown and

blackface costumes in the past (Shaheen, 2019). Meanwhile Scheer faced questions about failing to disclose his dual US/Canadian citizenship, allegedly inflated claims on his resume and was accused of being homophobic and anti-women's rights for his socially conservative stances on gay marriage and abortion (Shaheen, 2019). A number of other controversial issues simmered throughout the campaign, including western pipelines, carbon pricing, climate change, indigenous rights, immigration and Quebec's Bill 21, which barred some public servants, including teachers, from wearing religious garments to work such as turbans and hijabs ("Federal Election," 2019).

### **Data Gathering**

In order to explore the research problem and address the associated questions, two types of documents were collected: election-related tweets which used the hashtags *#cdnpoli*, *#elxn43* and *#elxn2019*; and articles from traditional media, specifically Canada's two national newspapers, *The Globe and Mail* and the *National Post*. To remain within the scope of this capstone project, a non-random data collection method known as "constructed week sampling" was applied (Kim et al, 2018; Riff et al, 1996). With this technique, tweets and newspaper articles were collected one day per week during five of the six-week duration of the election, and on both Saturday and Sunday of week four. During the sixth week of the campaign, the collection date was Tuesday October 22, 2019, the day after the election, rather than the 21st in order to construct a complete seven-day week and a more complete amount of election coverage. Table 4.1 presents the number of documents collected and included for coding and analysis. The total sample size was 101 newspaper articles and 1085 tweets.



	<b>Data Collection Date</b>	<i>The Globe &amp; Mail</i>	<i>National Post</i>	<b>Twitter</b>
<b>Week 1</b>	Wednesday Sep 11, 2019	6 articles	7 articles	103 tweets
<b>Week 2</b>	Thursday Sep 19, 2019	2	4	278
<b>Week 3</b>	Friday Sep 27, 2019	5	4	108
<b>Week 4</b>	Saturday Oct 5, 2019 Sunday Oct 6, 2019	7 0	16 0	208 160
<b>Week 5</b>	Mon Oct 14, 2019	3	1	143
<b>Week 6</b>	Tue Oct 22, 2019	27	19	106
<b>Excluded</b>		0	0	- 21
<b>TOTAL</b>		<b>50</b>	<b>51</b>	<b>1,085</b>

Table 4.1. Total Documents Number of Collected

**Twitter.** The collection of Twitter data was conducted using its own advanced search function and the top tweet filter (Twitter, 2018). For each of the established sample dates, only English language tweets were included in the search parameters and the search term “#cdnpoli OR #elxn43 OR #elxn2019” was used. These hashtags were chosen as they were some of the most widely used, election-related, non-partisan hashtags (Politwitter, Oct, 2019; Politwitter, Sep, 2019; Small, 2011), providing a good cross section of issues being discussed on the social media platform.

Given the theoretical framework of this study and the focus on issue salience, the top tweet filter was chosen for the Data Miner scraping tool to collect the tweets on to a spreadsheet. As I collected all the “top tweets” produced for each sampled day, I chose not to place emphasis on more or less engagement of an individual tweet. Rather, I focused on measuring salience by the number of “mentions” generated by the coding scheme, which will be explained in more detail later in this chapter.

The scraped information from the Twitter website included usernames, dates, hashtags, complete messages, numbers of retweets, likes and replies to each tweet, linked or subtweeted content, and user profile links. I then went back and checked that information on the spreadsheet matched the actual Twitter search results in order to verify the information being scraped was accurate and complete. When tweets were missed or scraped incompletely, I added them to the spreadsheet manually, and when tweets were duplicated, I removed them from the spreadsheet. I also added a column to the spreadsheet for “Coder Comments” to add information necessary such as subtweets or headlines for linked articles that were not originally scraped in order to have sufficient contextual information for coding.

It should be noted that because Twitter is a dynamic website, the order of the search results sometimes varied from day to day, and occasionally the number of likes and retweets changed slightly, but the variations were minimal in my estimation. A total of 1,106 tweets were collected and 21 were excluded because they appeared in the #cdnpoli hashtag but were unrelated to the federal election, leaving 1,085 for coding and analysis.

Figure 4.1 illustrates some results from the advanced search function for “top tweets” for week 5 (Oct 14, 2019) and figure 4.2 shows what the scraped data looks like in the spreadsheet.

The screenshot displays the Twitter Advanced Search interface. At the top, the search query is "#cdnpoli OR #elxn43 OR #elxn2019" with a filter icon. Below the search bar are tabs for "Top", "Latest", "People", "Photos", and "Videos". The main feed shows three tweets:

- David Jacobs @DrJacobsRad** (Oct 14, 2019): "Trudeau has spent most of the campaign railing against Stephen Harper and Doug Ford. But they didn't create this mess. He did." Includes a link to a National Post article about Kelly McParland.
- Tania Cameron @TaniaCameron** (Oct 14, 2019): "This is amazing news for @CharlieAngusNDP !! Keep rocking that vote! #elxn43 #cdnpoli". Includes a retweet from **Charlie Angus NDP @CharlieAn...** (Oct 14, 2019) about the chief of Attawapiskat.
- Jagmeet Singh @theJagmeetSingh** (Oct 14, 2019): "Dream no little dreams. #elxn43". Includes a photo of him shaking hands with a woman.

On the right side, the "Search filters" panel is visible, showing options for "People" (From anyone selected), "Location" (Anywhere selected), and "Advanced search". Below that, the "What's happening" section lists trending topics like "Police and officials ask Liverpool fans not to go to Anfield for EPL trophy presentation" and "Republican Ted Yoho accosted Rep. Alexandria Ocasio-Cortez with crude language".

Figure 4.1. Twitter Advanced Search

Top Tweets Week 5 -Oct 14									
Name	Date	Hashtags	Tweet	Number of Retweets	Number of Likes	Number of Comments	Coder Comments	Embedded links	Tweet Link
David Jacobs	Oct 14, 2019	#cdnpoli	"Trudeau has spent most of the campaign railing against Stephen Harper and Doug Ford. But they didn't create this mess. He did." #cdnpoli	520	1.2K	33	NP Oct 14: Kelly McParland: Trudeau wanted to give Canadians coalitions – he may yet do so!	<a href="https://t.co/f0dkn3rjse?amp=1">https://t.co/f0dkn3rjse?amp=1</a>	<a href="https://twitter.com/DrJacobsRad">https://twitter.com/DrJacobsRad</a>
Jagmeet Singh	Oct 14, 2019	#elxn43	Dream no little dreams. #elxn43	213	1.7K	62	Singh shaking kid's hand at rally	<a href="https://twitter.com/theJagmeetSingh/status/1183871793645273088/photo/1">https://twitter.com/theJagmeetSingh/status/1183871793645273088/photo/1</a>	<a href="https://twitter.com/theJagmeetSingh">https://twitter.com/theJagmeetSingh</a>
Tania Cameron	Oct 14, 2019 Oct 14, 2019	#elxn43 #cdnpoli	This is amazing news for @CharlieAngusNDP !! Keep rocking that vote! #elxn43 #cdnpoli	15	80		ST: @CharlieAngusNDP So pleased to see the chief of Attawapiskat calling on people to vote NDP! I will be in Attawapiskat on Tuesday.	<a href="https://twitter.com/CharlieAngusNDP/status/1183822049233559554/photo/1">https://twitter.com/CharlieAngusNDP/status/1183822049233559554/photo/1</a>	<a href="https://twitter.com/TaniaCameron">https://twitter.com/TaniaCameron</a>
Rex Glacier	Oct 14, 2019	#cdnpoli	Another Trudeau ass kissing CBC piece reminding us it's not Trudeau it's Trump & populism (Scheer) who are the problem in our Liberal utopia... This frustrating, silly and consequential election is almost over. What have we learned? <a href="https://cbc.ca/news/politics/election-2019-scheer-trudeau-singh-blanchett-may-1.5317818?_vz=medium%3Dsharebar...">https://cbc.ca/news/politics/election-2019-scheer-trudeau-singh-blanchett-may-1.5317818?_vz=medium%3Dsharebar...</a> #cdnpoli	31	83	14	CBC ANALYSIS: People are anxious – and this election campaign isn't helping	<a href="https://t.co/OqdQsuWQ6H?amp=1">https://t.co/OqdQsuWQ6H?amp=1</a>	<a href="https://twitter.com/rexglacier">https://twitter.com/rexglacier</a>
Conservative party	Oct 14, 2019	#cdnpoli #elxn43	Here's the choice this election. #cdnpoli #elxn43	521	850	206	CPC campaign video focusing on taxes and carbon tax		<a href="https://twitter.com/CPC_HQ">https://twitter.com/CPC_HQ</a>
Canadian Poli	Oct 14, 2019	#cdnpoli #elxn43	35,000 people have been evacuated in Manitoba but Andrew Scheer sees it as an appropriate campaign venue? Ridiculous. #cdnpoli #elxn43 <a href="https://cbc.ca/news/politics/scheer-winnipeg-campaign-snowstorm-emergency-1.5320611?_vz=medium%3Dsharebar">https://cbc.ca/news/politics/scheer-winnipeg-campaign-snowstorm-emergency-1.5320611?_vz=medium%3Dsharebar</a>	238	414	25	Story share CBC: Frustration erupts among snowstorm evacuees as Scheer campaigns in Winnipeg		<a href="https://twitter.com/cdnpoli_memes">https://twitter.com/cdnpoli_memes</a>
Tyler Watt	Oct 14, 2019	#CDNPoli #elxn43	Ethics watchdog called on the Commissioner of Elections Canada to investigate whether	221	338	18	National Observer: Ethics watchdog pushes for 'collusion' probe of		<a href="https://twitter.com/tylerwhat16">https://twitter.com/tylerwhat16</a>

Figure 4.2. Data Miner Twitter Scrape Spreadsheet

**Traditional Media.** The newspaper articles were searched from the print editions of the *NP* and *G&M* that were digitally archived in the Canadian Newsstream database on each of the designated collection days. General boolean search terms were used, such as “federal election”, “Canadian election”, “election campaign”, “election race” and “Canadian election and Twitter”. But after the initial coding process (explanation to follow) was completed with this first batch of articles, subsequent searches were conducted on the designated days for some of the most commonly discussed issues, including “climate change”, “SNC-lavalin”, “blackface or brownface”, “abortion”, “Indigenous issues” and “dual citizenship” to ensure that no relevant articles were missed.

If any election-related *G&M* or *NP* articles published on the designated collection days were shared on Twitter but were not initially found in the sample, they were also gathered and included in the traditional media document collection. For example, NDP leader Jagmeet Singh

made an announcement to commit to funding for clean drinking water for Indigenous communities while on the campaign trail on Saturday October 5, 2019. The story was covered by The Canadian Press and picked up by the online versions of both newspapers and was widely circulated that day on Twitter. Therefore, I included both versions of the story as traditional media documents despite the fact that they were not retrieved during my original search of the print edition archives. Worth noting is that the *NP* does not publish on Sunday and Monday and the *G&M* does not publish on Sunday. A total of 101 articles were collected and none were excluded. Figure 4.3 shows a partial list of the newspaper articles in the Atlas.ti analytical software document manager.

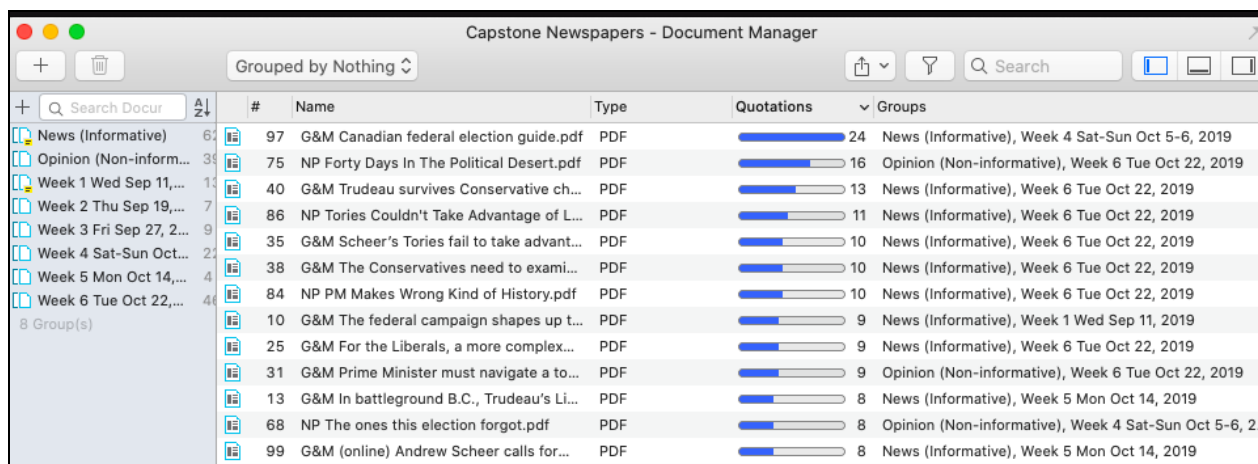


Figure 4.3. Partial Newspaper Article List in Atlas.ti Document Manager

**Sample Size and Saturation.** As recommended by Denscombe (2010), the sample size “only needs to be sufficient in size to enable the researcher to feel that enough information has been collected” (p. 41). My sample size was roughly in keeping with similar studies conducted in the past, such as Small (2011) who collected 1,617, Ferre-Pavia and Pareles Garcia (2015) who analyzed 1,221 tweets, Spencer (2019) who gathered 53 newspaper articles and 2,064 tweets, and Stefan (2019) who looked at 221 newspaper articles and 1,861 tweets. Once all the data was

collected, the newspaper articles and Data Miner spreadsheets were uploaded as searchable pdf files to Atlas.ti for organization, coding and analysis.

### **Data Analysis**

The mixed method analysis conducted during this study was an iterative process as described by Denscombe (2010). “Rather than analysis being a one-off event taking place at a single point in time, the analysis tends to be an evolving process in which the data collection and data analysis phases occur alongside each other” (p. 287). Both the quantitative and qualitative components of this study were facilitated by a coding scheme that borrows elements from similar past studies on Twitter and/or traditional media (Ferre-Pavia & Pareles Garcia, 2015; Small, 2011; Spencer, 2019; Stefan, 2019).

**Coding Process.** The coding process involved a three-pronged approach, beginning with initial coding, followed by categorizing, then thematic grouping of the issues. This process generated a total of 4,336 codes for the Twitter sample and 1,536 for the newspaper dataset.

*Initial Coding.* During the first part of the process, tweets and articles were coded in detail, identifying characteristics such as whether articles were news or opinion and tweets were posted by journalists/media organizations, political operatives, issue advocacy groups, celebrities and regular people. Topics and issues were also identified in both the tweets and newspaper articles at this stage. I then went back and verified the coding by repeating the process and added additional codes to the Twitter documents specifically to identify whether the documents were supportive, critical or neutral towards a particular political party or issue in order to more fully understand the nature of the coverage of particular issues in both types of media. In other words, I gleaned as much information as I could during the initial coding in order to accurately

categorize and group the codes. Figure 4.4 is an example of the initial coding process for a newspaper article and figure 4.5 illustrates the Twitter coding.

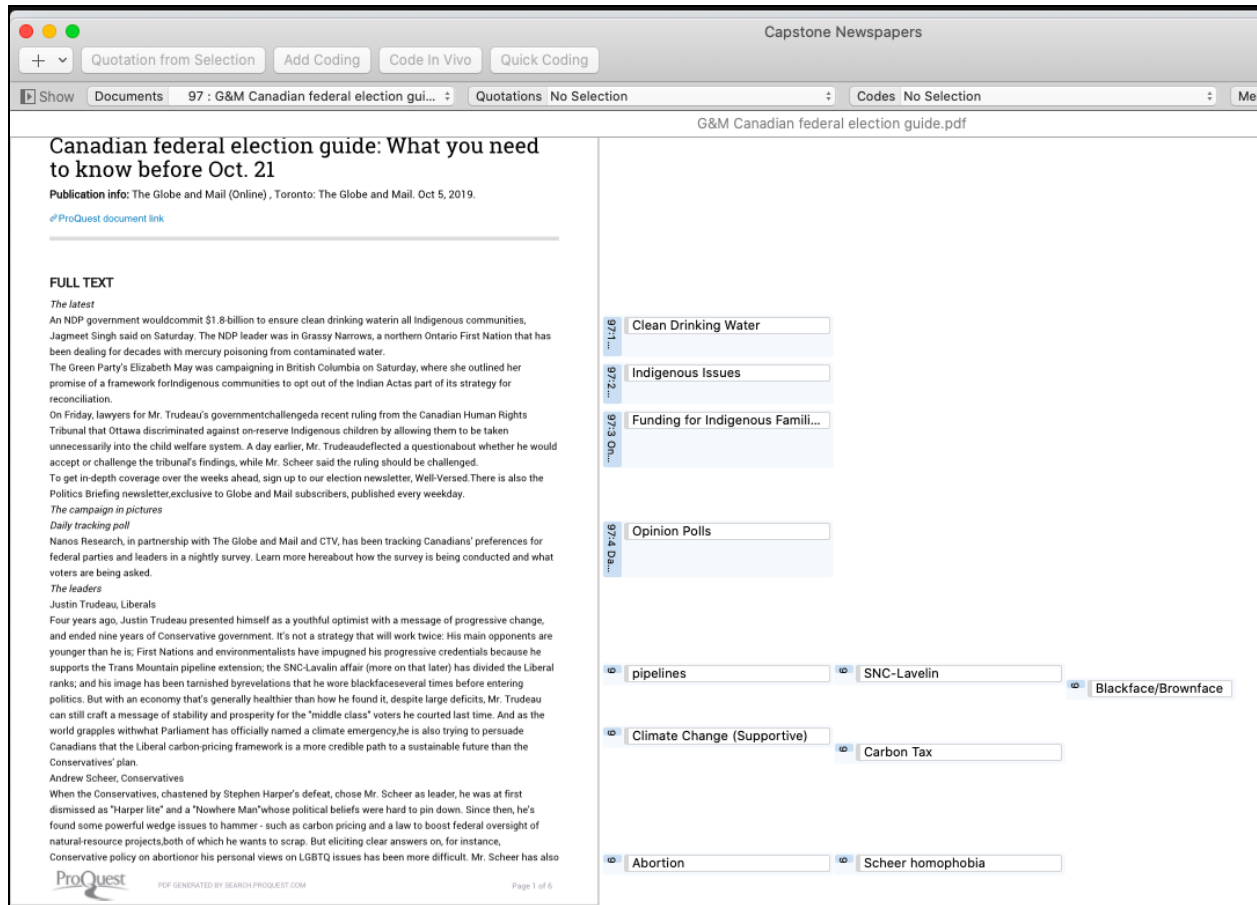


Figure 4.4. Initial Coding of Newspaper Article

Name	Date	Hashtags	Tweet	Number of Retweets	Number of Likes	Number of Comments	Coder Comments	Em
Asif Hossain	Sep 27, 2019	#Toronto #cdnpoli #elxn43 #topoli	@AndrewScheer's team uses a pic of Chicago to make a claim about infrastructure in Canada. As everyone in #Toronto knows in the Ford-Tory decade, Conservatives don't build transit. It's evident here they don't even know what Canadian transit looks like. #cdnpoli #elxn43 #topoli	317	661	61	Photo referenced	6:11 AndrewScheer... CPC (anti) Opinion/Humour/Personal Public Transit/Infrastructure Regular person
Rebel News	Sep 27, 2019	#cdnpoli #elxn43	REVEALED: Justin Trudeau Liberals' pro-immigration propaganda plan for schools, media – and Tim Horton's. @SheliaGunnfield has the government documents: <a href="http://bit.ly/2n1FGuW">http://bit.ly/2n1FGuW</a> #cdnpoli #elxn43	57	54	8	News article	6:21 Rebel News... Immigration (anti) Online Media Opinion/Humour/Personal Story Share
Canadian Poli	Sep 27, 2019	#climatestrike #cdnpoli #elxn43	This is the best sign of the day #climatestrike #cdnpoli #elxn43	301	724	18	Photo of Scheer holding sign "Fossil Fuel"	6:31 Canadian Poli... Climate Change (supportive) CPC (anti) Opinion/Humour/Personal Regular person
Ed the Sock	Sep 27, 2019	#Ed4PM #Cdnpoli #Elxn43 #elxn2019 #ItsOurVote	Get The T-Shirt - <a href="http://Funetwork.TV/Shop">http://Funetwork.TV/Shop</a> Use The Hashtag - #Ed4PM Vote for real people though: <a href="https://twitter.com/EdtheSock/status/1175861046168498179">https://twitter.com/EdtheSock/status/1175861046168498179</a> ... #Cdnpoli #Elxn43 #elxn2019 #ItsOurVote	3	17		Video explaining why not voting is stupid	unc 6:4 Ed the Sock... Call to action Celebrity Get out the vote Politically Neutral
Mothicus Maximus	Sep 27, 2019	#cdnpoli #elxn2019 #Ottawa #Scheer4PM #Scheer2019 #NotAsAdvertised	Justyn is a job KILLER! The big infrastructure projects aren't getting started, and the big companies are looking for other places to invest. We NEED a @CPC_HQ government to right this ship! #cdnpoli #elxn2019 #Ottawa #Scheer4PM #Scheer2019 #NotAsAdvertised	30	25	3	CPC policy cheat sheet	6:5 Mothicus Maximus... CPC (pro) LPC (anti) Opinion/Humour/Personal Public Transit/Infrastructure Regular person
David Cavey	Sep 27, 2019	#CPC #cdnpoli #elxn43	Great speaking at the Alliance of Senior's Centres Forum today. Only 2 Vancouver-Centre candidates showed up. Seniors are a priority for the Conservative Party. #CPC #cdnpoli #elxn43	59	61	3	Photo of Tweeter	6:6 David Cavey... CPC (pro) Event/Programming information Opinion/Humour/Personal Political/Partisan Seniors
Polling Canada	Sep 27, 2019	#cdnpoli #elxn43	Remember to register to vote, folks. Elections Canada: <a href="https://ereg.elections.ca/CWelcome.aspx">https://ereg.elections.ca/CWelcome.aspx</a> #cdnpoli #elxn43	19	27	1		6:7 Polling Canada... Get out the vote Opinion Polls Politically Neutral
Polling Canada	Sep 27, 2019	#cdnpoli #elxn43	Leader Approvals: May: 44% (+2) Singh: 42% (+7) Trudeau: 41% (-1)	109	223	15		6:8 Polling Canada... Opinion Polls Politically Neutral

Figure 4.5. Initial Coding for Twitter

*Categorizing the Documents.* Both tweets and newspaper articles were categorized as “informative” or “non-informative” (Ferre-Pavia & Pareles Garcia, 2015). For the newspaper dataset, news stories were informative while opinion columns and letters to the editor were categorized as non-informative. Tweets designated as informative were straight sharing of news stories, opinion polls and other factual information about events or television programs, while stories shared with commentary, calls to action such as voting appeals, and those expressing opinion, emotion or personal experience, were classified as non-informative. Tweets were also categorized in more detail by identifying the posters as traditional or digital media individuals or organizations, political operatives, advocacy groups, celebrities or regular people and which party they supported, if they expressed such a sentiment. Figure 4.6 illustrates examples of a “non-informative” Tweet and a newspaper article it shared, which would also be categorized as “non-informative” since it was an opinion column gathered in the newspaper search.





Figure 4.6. Non-informative Documents

The rationale for categorizing the codes in this way was to understand the nature of the data collected, providing context when addressing the research problem from the theoretical perspectives of agenda setting and intermedia agenda setting. Thus, before presenting the findings directly addressing the research questions, I will provide some quantitative content analysis illustrating the general characteristics of the document samples.

After a simple count analysis, the newspaper documents were 61.4% informative and 38.6% non-informative, while 16.7% of the collected tweets were informative and 83.3% were non-informative. Figure 4.7 shows Twitter’s tendency to be more “non-informative” while

traditional media tends to be more “informative”, which aligns with past studies (Ferre-Pavia & Pareles Garcia, 2015; Small, 2011).

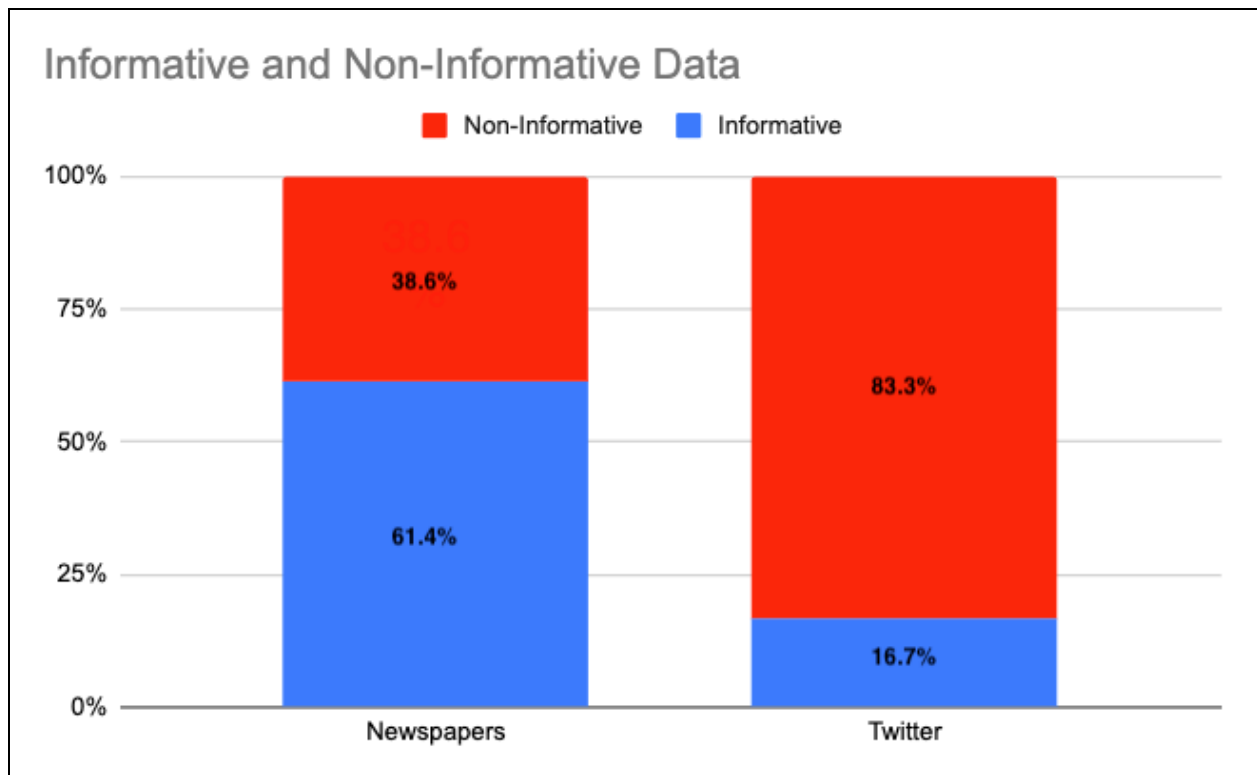


Figure 4.7. Graph of Informative & Noninformative Categories

Regarding the types of tweeters, figure 4.8 illustrates that the majority, 54%, were posted by “regular people.” Traditional and digital media collectively made up 20.6% of the posts while political operatives such as politicians, their campaign staff or well-known partisans, were responsible for 21% of the tweets sampled during the 2019 Canadian federal election.

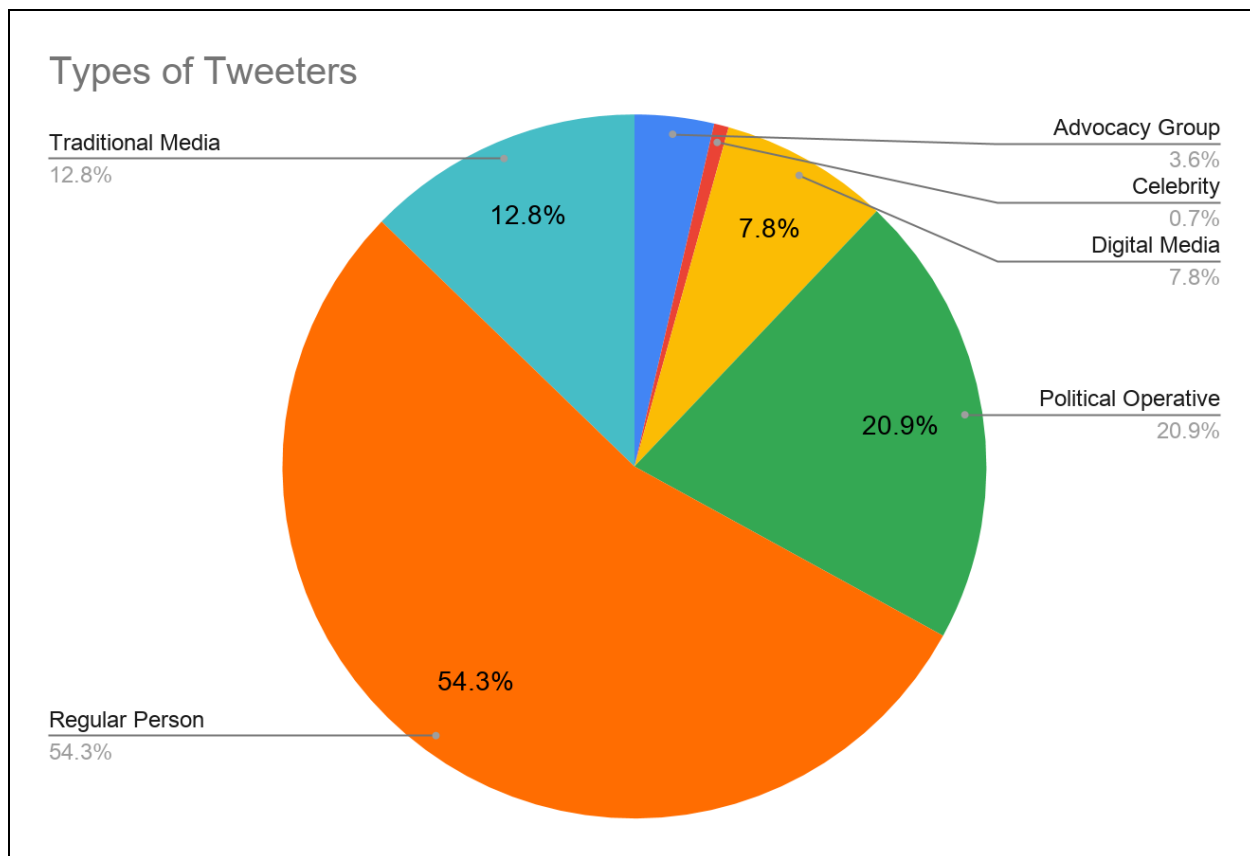


Figure 4.8. Graph of Types of Tweeters

*Grouping Codes into Issue Themes.* The final aspect of the coding process was grouping together codes that were thematically-related. This was done in order to allow for a more detailed and contextualized content analysis of the most salient issues in both types of media. It is important to note that multiple issues could be discussed within each tweet or article, but each topic was only coded once per document. For newspapers, the initial coding revealed 96 discrete codes, such as Trudeau’s SNC-lavelin scandal, Scheer’s dual citizenship scandal, the carbon tax, climate change, abortion rights, Quebec’s Bill 21, etc. I then grouped the codes together thematically. For example, the Climate Change group included the three types of discussion about climate change (dismissive, neutral, supportive), as well as climate denial, carbon emissions, pipelines and the carbon tax; while the National Unity group included articles that discussed general regional differences, western alienation, Quebec nationalism, its language laws

and Bill 21. The latter was also added to the race relations group, which contained pro and anti-immigration/refugee mentions, multiculturalism and discussions of various forms of racism towards newcomer groups. Race relations mentions about First Nations and Metis communities were included in the Indigenous Issues group. I also included a group on disinformation dealing with conspiracy theories and fake news. For the final analysis, the original 96 codes were gathered into 23 groups for newspapers. The Twitter dataset produced 221 codes and 33 groups. The raw data and full list of individual codes and their issue groupings can be found in appendices A and B.

### **Presentation of Findings in Quantitative Analysis**

**Issue Salience in Traditional Media.** *RQ1: What were the most salient issues covered by the traditional media during the 2019 Canadian federal election?*

To address this first research question, I conducted a simple count of the issues by thematic group and by individual code mentions to ascertain the most frequently covered topics in Canada's two national newspapers.

*Thematic Group Salience.* I found that the most discussed issue by group was the election race with 88 mentions. This group included stories which discussed national and local election races, polling, the debates, election process, laws and interference, various voting blocks, strategic voting and vote splitting, speculation about a minority governments and potential coalitions, and the eventual results of the 2019 Canadian federal election. The next most salient issue in the traditional media dataset with 66 mentions was national unity which dealt with issues of regional angst and their causes (such as pipelines or lack thereof in the west) and general discussions of Canadian unity. Third on the list of salience was climate change with 66 mentions. That group included discrete codes for carbon emissions, carbon tax, climate change

(dismissive), climate change (neutral), climate change, (supportive), climate denial and pipelines. Fourth was economy/growth/jobs, which included discussions of the debt, deficits, budgets, as well as service and funding cuts and the general health of the economy and its various sectors, such as the oil and gas industry or the corporate sector.

Rounding out the top five with 56 code mentions was race relations, which included pro and anti immigration sentiments, diversity and multiculturalism, as well as various forms of racial and religious bigotry towards newcomers. The Trudeau brownface/blackface scandal was included in this section as it often segued into discussions of systemic or subconscious racism. As mentioned earlier, discussion of systemic racism and bias toward the First Nations and Metis communities was included in the Indigenous issues group, which had 14 mentions and was the 12th most salient thematic issue. Figure 4.9 is a bar graph of all the newspaper issue groups by raw numbers.

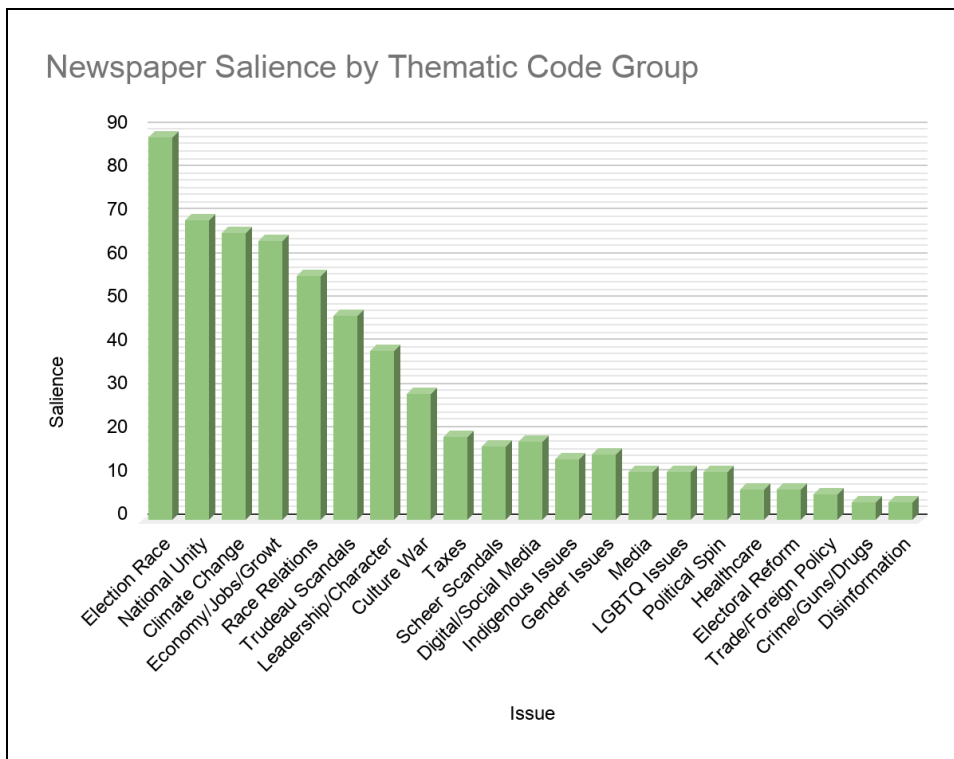


Figure 4.9. Graph of Newspaper Issue Salience by Thematic Group

*Topic Salience by Individual Code Mentions.* Among the individual codes, the most frequently covered topics were the election race itself at 36.4% of the 96 individual codes, followed by climate change at 31.3%, the SNC-Lavalin scandal at 24%, the Trudeau brownface/blackface scandal at 23% and rounding out the top five most salient issues was pipelines at 20.8%. Figure 4.10 shows the top ten individual topics by code mentions.

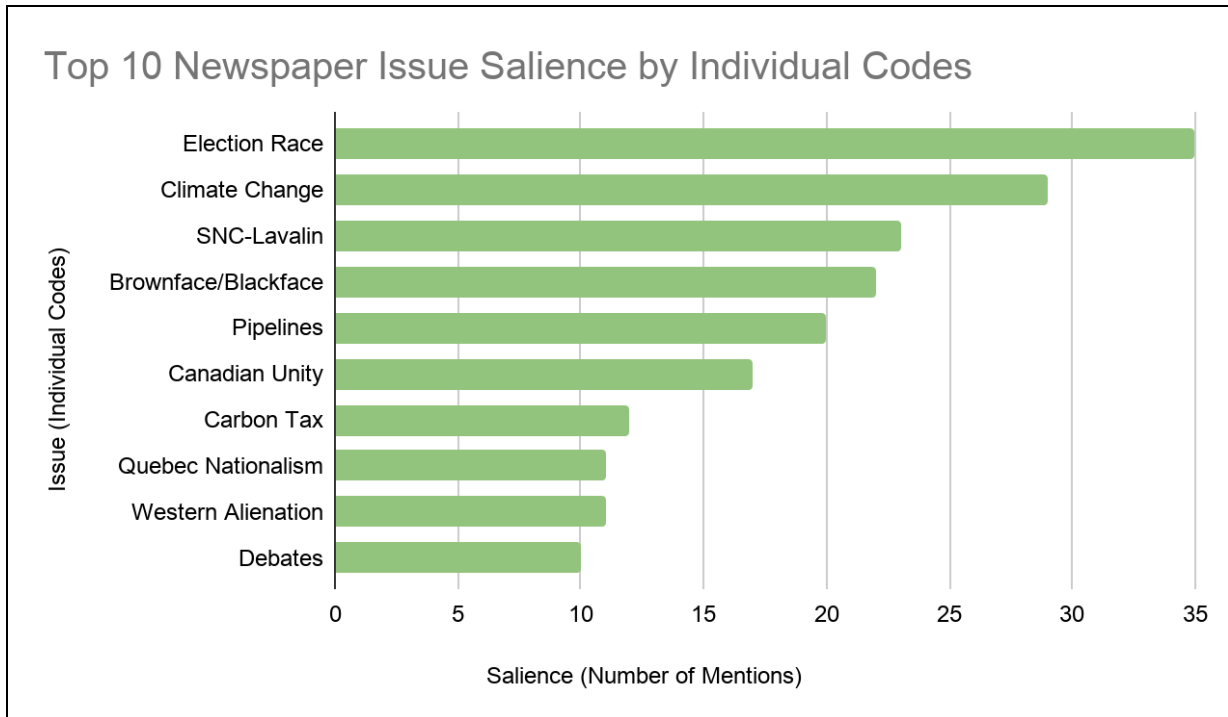


Figure 4.10. Graph of Top 10 Individual Code Mentions in the Newspapers

**Issue Salience on Twitter.** *RQ2: What were the most discussed topics on Twitter tagged with #cdnpoli, #elxn43 or #elxn2019 during the election campaign?*

The second research question addressed issue salience on the Twitter social media platform. Once again, a simple count of the thematically grouped codes was used to establish the most popular topics in the most active non-partisan politics hashtags on Twitter for the duration of the election campaign. A total of 221 initial codes were developed for the Twitter data set, but 27 of those were categorizing codes such as identifying if a poster was a political operative or

whether they were expressing opinions (non-informative) or sharing factual information (informative). The remaining 194 initial codes were individual topic mentions which were separated into 33 issue groups. As with the traditional media documents, there was some overlap of individual codes within various groups. Figure 4.11 is a bar graph of the top six Twitter issue groups by raw numbers.

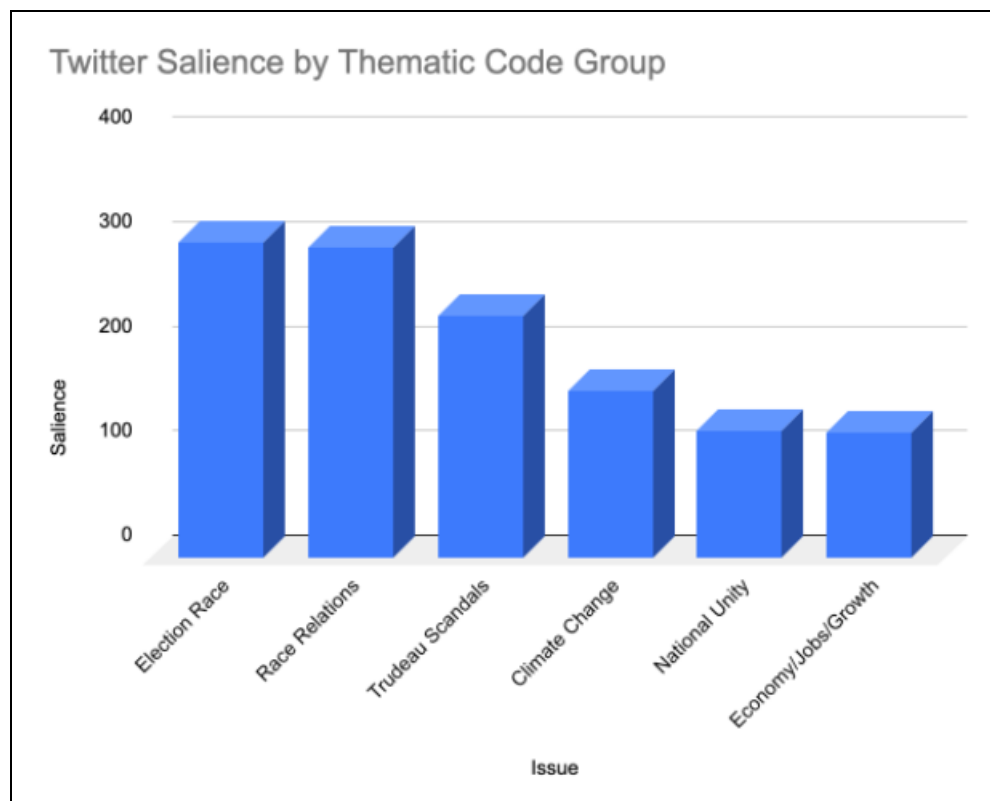
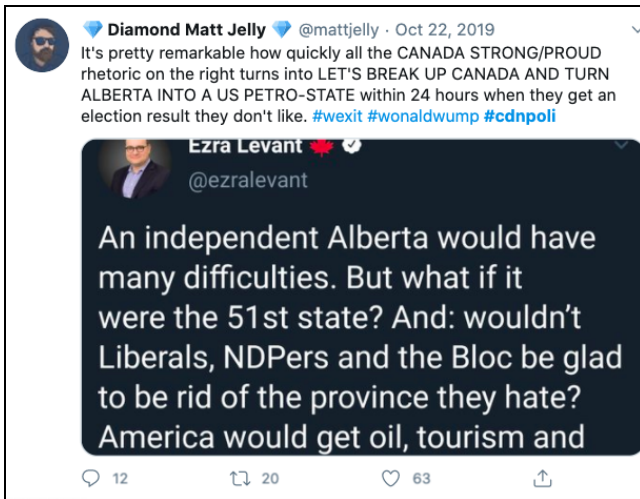
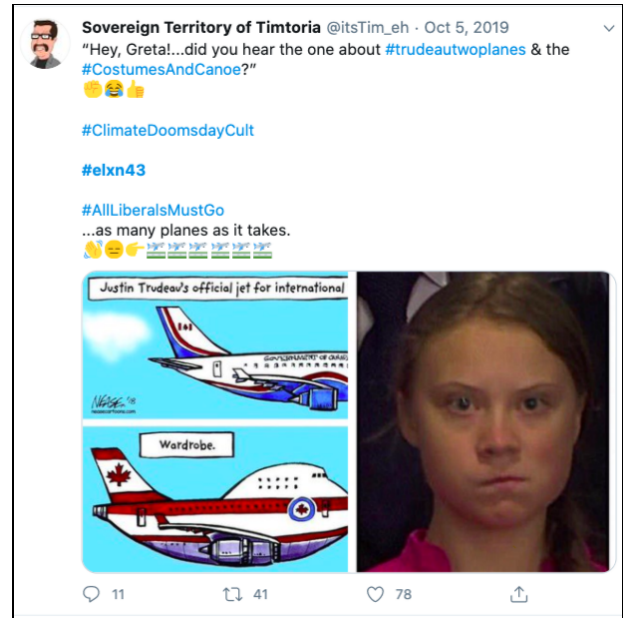


Figure 4.11. Graph of Twitter Issue Saliency by Thematic Group

The most salient issue on Twitter within the aforementioned hashtags was also the election race with 301 mentions in total. Again, this code grouping included everything to do with the election campaign race, with topics ranging from party leader rallies to local candidate door-knocking experiences, campaign sign vandalism, polling and voting strategies. Second in saliency was the race relations group with 296 thematically related mentions. The Trudeau brownface/blackface incident made up 63.9% of this group. This topic also helped push the

Trudeau scandals issue into third place on Twitter, receiving 189 out 231 mentions or 81.9%. Other scandals included the alleged SNC-lavalin ethics violations at 11%, which was markedly different from the traditional media data set at 24%. The Trudeau scandals group placed sixth in newspapers, devoting 48.9% of its coverage in this thematic area to the alleged ethics violations in the Prime Minister's Office and 46.8% to brownface/blackface. Other scandals in both datasets included Trudeau's India trip and much commentary on Trudeau's two airplanes on Twitter. Tweets coded with this topic also counted in the climate change issue, which was the fourth most salient issue on Twitter with 159 mentions. Number five for



Twitter issue salience was national unity with 120 mentions. Thematic connections for the individual codes in the national unity group were about regional angst, especially in Alberta which made up 74.2% of the tweets. These tweets were either sympathetic to western alienation and the economic woes of the oil and gas

industry; or dismissive to downright mocking, especially of the so-called "wexit" movement.

Only two out of 120 English-language tweets directly addressed Quebec nationalism. By



contrast, almost one third of the national unity group mentions in traditional media discussed Quebec nationalism in its various forms as indicated by the resurgence of the Bloc Quebecois during the 2019 election.

For the 194 individual topic codes produced from the Twitter dataset, some identified the same subject matter from different perspectives. In order to simplify the presentation graph of top individual code mentions, I amalgamated those. For example, there were three SNC-lavalin codes: those critical of Trudeau (13 mentions), those who supported him and were dismissive of the alleged ethical violations (13) and one tweet that was critical of Scheer's handling of the issue. Those individual code mentions were presented as the SNC-lavalin code with 27 mentions, and is included in the list since it is tied with pipelines for the 10th most frequent mention on Twitter, as presented in figure 4.12.

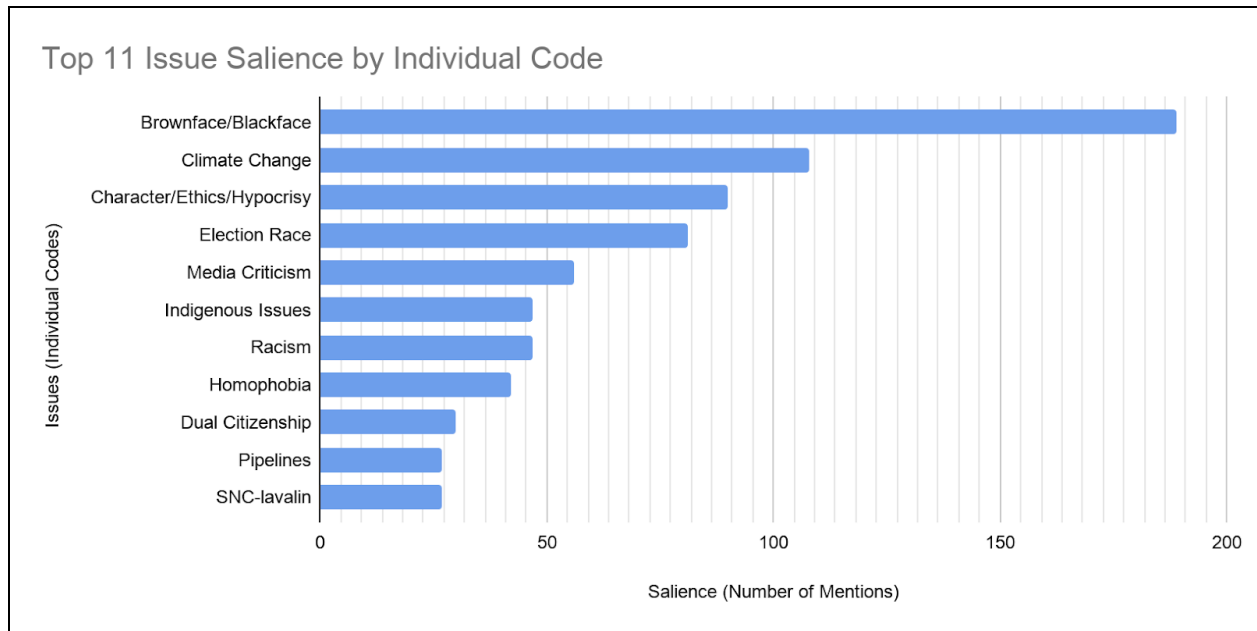


Figure 4.12. Graph of Top 11 Individual Code Mentions on Twitter

### **Presentation of Findings in Qualitative Analysis**

The three-pronged coding scheme allowed for the simple count quantitative analysis just discussed, but its other significant application was to enable qualitative content analysis of the data.

**Issue Salience and Intermedia Agenda Setting.** *RQ3: How did the discussion of the most salient issues in both types of media influence each other during the course of the election campaign?*

Following the precedent of prior studies using the agenda setting (McCombs & Shaw, 1972; Soroka, 2002) and intermedia agenda setting theoretical frameworks (Conway et al, 2015; Groshek & Groshek, 2013; Harder et al, 2017; Posegga & Jungherr, 2019; Rogstad, 2016) to study traditional and social media, I looked at the most salient issues in each dataset and compared how the discussion of those topics manifested on Twitter and in traditional media; and the kind of influence they may have had on each other.

*Climate change.* As an example, climate change was the third most salient issue by group in newspapers. From the very beginning of the election campaign, traditional media presented it as one of the most popular issues during the election campaign. On the day the writ was dropped, the *G&M* published a story focused on the four main parties' climate change policies (McCarthy & Walsh, 2019). Even the more conservative *NP* devoted entire stories and opinion columns to the issue with headlines like "Wanted: adult dialogue about oil and climate" (Mcparland, 2019). While not as sympathetic to the cause, devoting precious column inches to the issue still illustrated that it considered the issue important or salient. Even in the aftermath of the election, its importance was maintained, as seen in the *G&M*, which declared "Climate action emerged as a top ballot-box issue" (Hunter, 2019). Public opinion polls were cited to back up this assertion,

but there was no mention of Twitter activity around the issue despite it being the fourth most salient topic on the platform during the campaign with 159 mentions. This suggests there was little intermedia transfer of salience from Twitter to the two newspapers. Tweeters were certainly engaged with climate change from day one of the campaign with mentions every week with a



peak of 48 mentions in week 3 when the global climate strike demonstrations occurred on September 27, 2019 (Perreux, 2019; Thomson, 2019). In terms of intermedia agenda setting, there was plenty of traditional media video and photographs, as well as journalists

reporting from the marches on Twitter. Additionally, there were also camera phone videos and photos from climate strike participants floating around suggesting that interest in the issue was generated both from the event itself, as well as the journalistic coverage.

Another way I analyzed the data for intermedia agenda setting was to compare the most salient issues covered by each type of media. Table 4.2 gives a side-by-side comparison of the most salient issues, illustrating that the top six issues are the same, though they vary slightly in ranking.

Issue Salience Ranking	Newspapers (mentions)	Twitter (mentions)
1	Election Race (88)	Election Race (301)
2	National Unity (69)	Race Relations (296)
3	Climate Change (66)	Trudeau Scandals (231)
4	Economy/Jobs/Growth (64)	Climate Change (159)
5	Race Relations (56)	National Unity (120)
6	Trudeau Scandals (47)	Economy/Jobs/Growth (119)

Table 4.2. Comparison of Issue Salience

In order to explore why issue saliences were so closely aligned, I looked further at the interactions between the two types of media. On Twitter, 34.5% of the data sample were shared news stories or tweets by journalists as they were covering the campaign, events like the climate march, or breaking scandal related news stories such as the SNC-lavalin affair (Fife & LeBlanc, 2019). While some tweets were shared by digital media outlets such as *The Herle Berly Podcast*, the vast majority were from traditional media like the *NP*. As past studies have noted,



media shares can generate engagement with the topics in the form of retweets, likes and comments, possibly increasing the salience of issues from an intermedia agenda setting perspective (Conway et al 2015; Murthy, 2018; Rogstad, 2015).

With regard to traditional media's engagement with Twitter, the literature overwhelmingly suggested that journalists use Twitter as a tool for story ideas, contacts and quotes (Lewis & Molyneux, 2018, Murthy, 2018; Wallsten, 2015). But in the sample of newspaper stories examined in this study, that was not proven to any great extent. Out of the 101 stories examined, there were 10 mentions about social media, five of which referred directly to Twitter. The comments mostly acknowledged the platform's influence and use as a tool in political campaigns with comments like, "The Liberals mass-tweeted videos of Mr. Scheer's 2005 speech against same-sex marriage to spread the notion that his views haven't changed - although he says he won't change the law now," (Campbell, 2019).

However, there was one news story that originated on Twitter and was reported as the kind of conspiratorial disinformation campaigns that are becoming more and more prevalent on social media (Lewis & Molyneux, 2018; Marwick & Lewis, 2017). The *G&M's* Simon Houpt (2019), reported:

DAISY GROUP LEADER HELPS A CONSPIRACY BLOOM Political operative and Toronto Sun columnist Warren Kinsella, who runs the Daisy Group communications consultancy, breathlessly amplified a baseless allegation about Mr. Trudeau, suggesting *The Globe and Mail* was going to report the Liberal Leader had left his teaching position because of an affair. Ezra Levant of Rebel Media jumped in, tweeting: "Huge sex scandal brewing for Justin Trudeau."

When *The Globe* story didn't materialize –because there wasn't one –Mr. Kinsella continued to beat the drum on Twitter, feeding a conspiracy that suggested the Liberals had obtained an injunction to stop its publication.

The story hopped the border, seized on and embellished by the Buffalo Chronicle, a website that traffics in disinformation.

Two weeks later came a *Globe* story that Mr. Kinsella probably enjoyed a lot less: that the Conservative Party had hired his company to secretly kneecap the People's Party

of Canada. After a storm of criticism, Mr. Kinsella deactivated his Twitter account over the weekend. Thank heaven for small mercies (para 10).



This article was published on October 22, 2019 and collected in the week 6 newspaper dataset, but the drama played out on Twitter, in week 4 (October 5 and 6, 2019). Kinsella first tweeted about the issue on the Saturday. Even though the existence of the original tweeter was never verified, the post was retweeted, subtweeted and replied to many

times over during the course of the day with some posters believing the conspiracy theory and others remaining skeptical. Eventually, posters found copies of the *G&M*, and debunked the alleged conspiracy. While there is only one example of newspapers picking up a story from Twitter in this data sample, it suggests that intermedia agenda setting can flow both ways. As described in the literature, Twitter can be seen as an “awareness system” that provides journalists with trends and issues (Hermida, 2010). However, in general, the data in this study suggests that salience primarily moves from traditional to social media, as news stories were often linked as a starting point to discussion on Twitter.



**Comparative Issue Salience Over Time.** As discussed in the literature review, both traditional and social media can have agenda setting impacts on each other to varying degrees, and subsequently help define which issues may become important in the public sphere of opinion

(McCombs, 1972; Soroka, 2002). Both Twitter and traditional media are communication channels used to disseminate information, political messaging and identify topics of interest to the public, especially over time (Soroka, 2002). Thus, it is worth keeping some key happenings in mind during the course of the election campaign when exploring issue salience. A timeline of the key events and news stories during the election campaign is presented in figure 4.13.

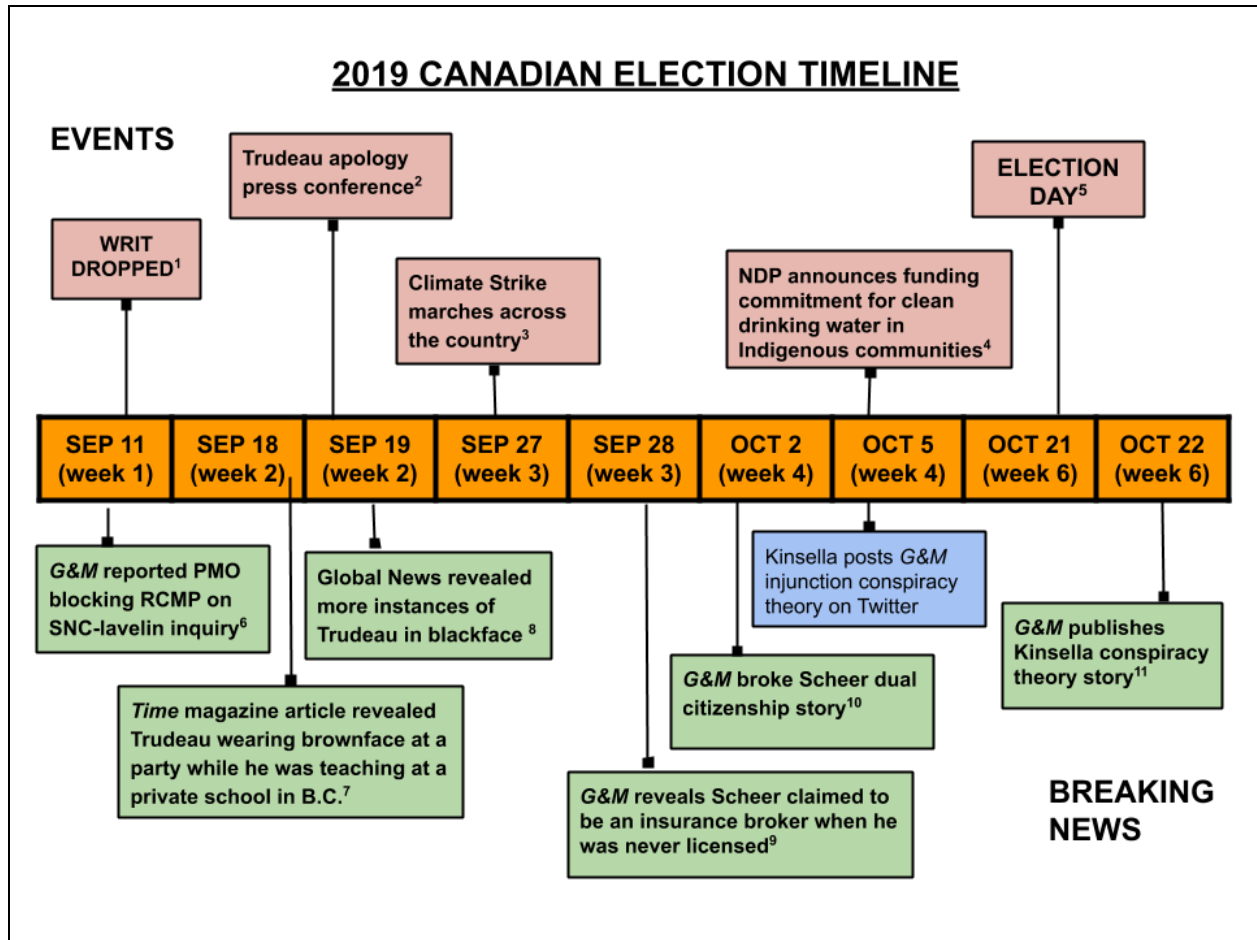


Figure 4.13. Key events during the 2019 Canadian federal election (See footnotes for citations)

version of the kind of time series and temporal dynamics analysis produced in some of the big All the events included in the timeline were generally “big news” and issue flashpoints during

<sup>1</sup>(Tunney, 2019)

<sup>2</sup>(Walsh et al, 2019)

<sup>3</sup>(Perreux, 2019)

<sup>4</sup>(The Canadian Press, 2019)

<sup>5</sup>(Tunney, 2019)

<sup>6</sup>(Fife & LeBlanc, 2019)

<sup>7</sup>(Kambhampaty et al, 2019)

<sup>8</sup>(Stephenson & Armstrong, 2019)

<sup>9</sup>(Clark & Radwanski, 2019)

<sup>10</sup>(Fife & Dickson, 2019)

<sup>11</sup>(Haupt, 2019)

the election campaign, except for the Kinsella disinformation incident on Twitter which got minor buzz at best. But it was included on the timeline as an example of the reverse agenda setting effect (Jang, et al, 2018) discussed in the literature review

In order to explore how issue salience evolved over the duration of the election campaign, I looked at the number of issue group code mentions for each week (sample day) and compared it to the timeline. Analyzing the data from this perspective enabled a very scaled down data studies discussed in the literature review (Groshek & Groshek, 2013; Jang, et al, 2017; Jungherr, 2014; Jungherr, 2016; Posegga and Jungherr, 2019).

Looking at Twitter first, if we compare the timeline information from figure 4.13 with issue salience over time from table 4.3 and figure 4.14, unsurprisingly, a massive spike of posting activity appears in week 2 when the Trudeau brownface/blackface scandal emerged (Kambhampaty et al, 2019). The interest peaks to a smaller degree the following weekend and then peters off towards the end of the campaign. It is worth noting that posting activity in general was slightly higher in the week 4 sample due to the two weekend days being counted together.

<b>TWITTER CODE GROUP MENTIONS BY WEEK</b>							
	Week 1 (Wed Sep 11)	Week 2 (Thu Sep 19)	Week 3 (Fri Sep 27)	Week 4 (Sat-Sun Oct 5-6)	Week 5 (Mon Oct 14)	Week 6 (Tue Oct 22)	<b>Totals</b>
Climate Change	10	8	48	45	18	16	145
Disinformation	1	0	3	21	0	0	25
Indigenous Issues	0	7	1	39	4	1	52
Scheer Scandals	0	14	0	32	2	3	51
Trudeau Scandals	17	179	3	18	4	3	224
<b>Totals</b>	28	208	55	155	28	23	497

*Table 4.3. Twitter Code Group Mentions by Week*



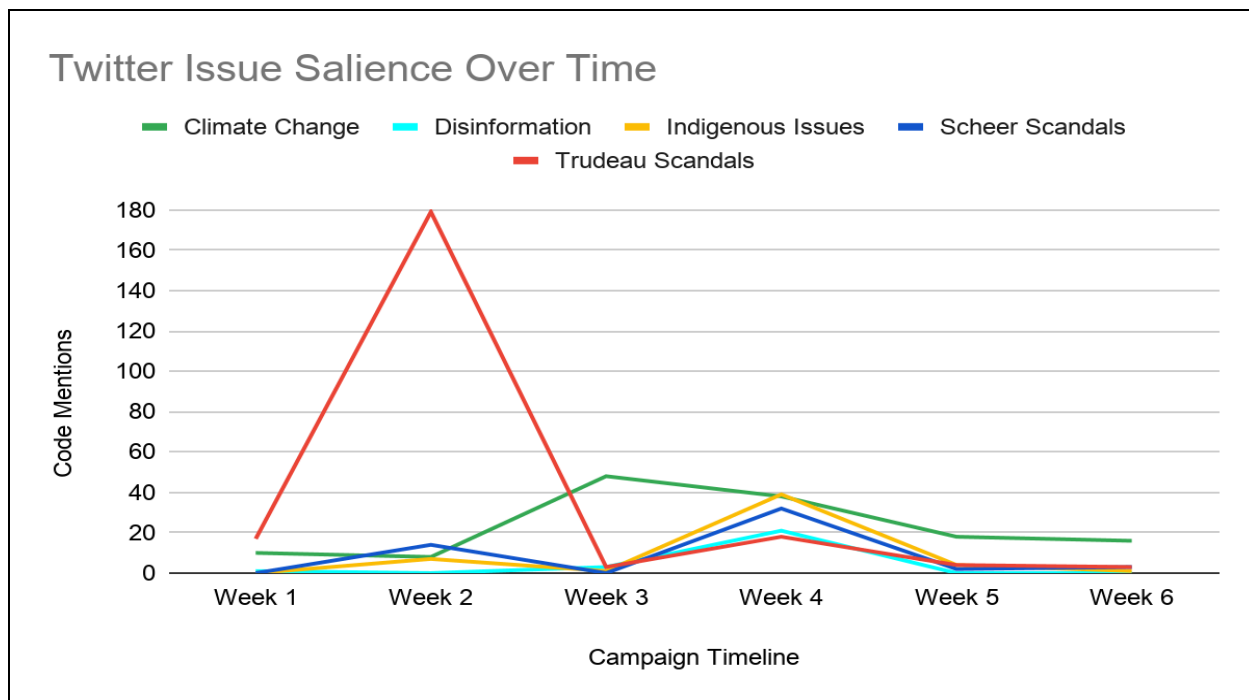


Figure 4.14. Issue Salience Over Time on Twitter

While nowhere near as prominent, posting spikes can also be seen during week 3 when the global climate strike occurred and week 4 when the Scheer dual citizenship and resume inflations stories broke (Thomson, 2019). Similarly, interest in Indigenous issues spiked in week 4 after the NDP’s Jagmeet Singh made an announcement committing to \$1.8 billion in funding for clean drinking water if he was elected Prime Minister (The Canadian Press. 2019). Of all these issues, only climate change didn’t have a steep drop off in interest on Twitter, but plateaued slightly lower than its week 3 peak. This suggests climate change remains an issue of interest even when there isn’t big breaking news surrounding it.

Finally the Kinsella disinformation incident on Twitter also took place in week 4 and generated a flurry of interest among tweeters that weekend. However the issue disappeared from Twitter after it was resolved. Nor did it generate enough further interest that warranted “top tweet” inclusion by Twitter after the *G&M* published its story in week 6 as part of its day-after election coverage.

Issue salience patterns for traditional media are quite different from Twitter as shown in figure 4.15 and table 4.4 (the full list for issue group and individual code mentions can be found in appendices C and D).

<b>NEWSPAPER CODE GROUP MENTIONS BY WEEK</b>							
	Week 1 (Wed Sep 11, 2019)	Week 2 (Thu Sep 19, 2019)	Week 3 (Fri Sep 27, 2019)	Week 4 (Sat-Sun Oct 5-6, 2019)	Week 5 (Mon Oct 14, 2019)	Week 6 (Tue Oct 22, 2019)	<b>Totals</b>
Climate Change	8	2	4	11	3	33	61
Disinformation	1	0	0	1	0	2	4
Indigenous Issues	0	1	1	7	0	5	14
Scheer Scandals	1	1	0	3	0	10	15
Trudeau Scandals	2	6	6	7	1	21	43
<b>Totals</b>	12	10	11	29	4	71	137

*Table 4.4. Newspaper Code Group Mentions by Week*

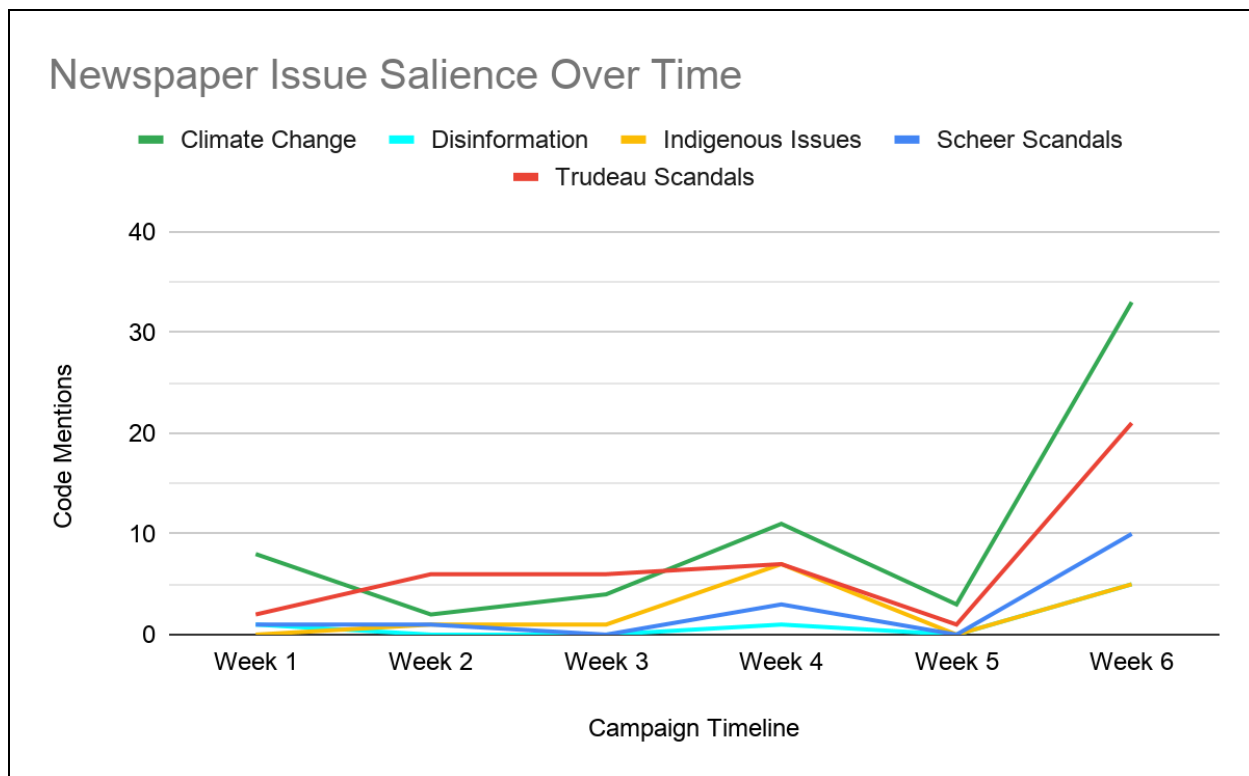


Figure 4.15. Issue Salience Over Time in Newspaper

In traditional media, interest in the Trudeau scandals increased slightly when the *Time* story came out but then remained steady for the next three weeks before dropping off completely in week 5. It then shot up in week 6 when all the election wrap up stories were published on October 22, 2019. Similar patterns were seen for climate change and Indigenous issues. The Kinsella story that originated on Twitter was also published in week 6 as part of a story outlining the quirky things that happened during the election.

All this suggests that Canada’s two national newspapers set their own agendas for the most part, while Twitter is still heavily reliant on traditional media for intermedia agenda setting, at least in the short term. The steep engagement drop-offs suggest that intermedia agenda setting from traditional media may not be sustained much beyond the immediate publication news cycle of a story.

## Discussion of Findings

Allow me to preface the discussion of findings by explaining my interest in the subject matter. I am a former journalist who still works in the communication field, which gives me certain insights into the data from the perspective of how journalism is produced and how communications channels like Twitter are used to disseminate political messaging. I do admit to having a certain bias when it comes to the importance of traditional media to a healthy democracy, and both an appreciation and skepticism around the way social media is impacting society at this current time. And just to be fully transparent, I voted Liberal in the 2019 federal election. But it was my mindset as a former journalist and cautious social media user that led me to articulate the primary research problem of this capstone project. That was to explore to what extent, if at all, Twitter influenced political coverage in traditional media, and by extension public opinion, during the 2019 Canadian federal election by examining the interaction between Twitter and Canada's two national newspapers. After collecting and analyzing the data, my answer to the original research problem is that in Canada, Twitter seemed to have minimal influence on traditional media's coverage of the 2019 federal election. I reached this conclusion by exploring the problem through three research questions:

RQ1: What were the most salient issues covered by the traditional media during the 2019 Canadian federal election?

RQ2: What were the most discussed topics on Twitter within the #Cdnpoli, #elxn43 and #elxn2019 hashtags during the election campaign?

RQ3: How did the discussion of the most salient issues in both types of media influence each other during the course of the election campaign?

The questions were framed using the agenda setting and intermedia agenda setting theories of mass communication (McCombs & Shaw, 1972; Soroka, 2002) as the foundation of my analysis. Therefore, the objective of my research was to establish the most salient issues found in the datasets collected from Twitter and traditional media, and then analyze the interconnections between them.

Taking RQ1 and RQ2 together, I found that the six most salient topics in both types of media were the same, though they differed slightly in ranking. Based on the number of code mentions per issue group, the most important were:

Traditional media:

1. Election Race (88)
2. National Unity (69)
3. Climate Change (66)
4. Economy/Jobs/Growth (64)
5. Race Relations (56)
6. Trudeau Scandals (47)

Twitter:

1. Election Race (301)
2. Race Relations (296)
3. Trudeau Scandals (231)
4. Climate Change (159)
5. National Unity (120)
6. Economy/Jobs/Growth (119)

As the side by side comparison (also presented in Table 4.2) showed, the most salient issue for both was the election race. In the newspaper samples, the majority of the articles written about the election race fell into the “informative” category of straight news coverage of the election. On Twitter, the majority of discussion around this issue was non-informative, as in emotion and opinion-based chatter by both regular people and political partisans. A fair amount of traditional and online media news stories were also shared, but more often than not, they were accompanied by tweeter commentary and opinion.

A similar pattern emerged for the other five most salient issues. However, the actual ranking variations are probably not that significant as there was only a difference of five code individual mentions between the top two issues on Twitter, which could be due to a margin of error in the coding process. But the fact that the same six issues were the most frequently

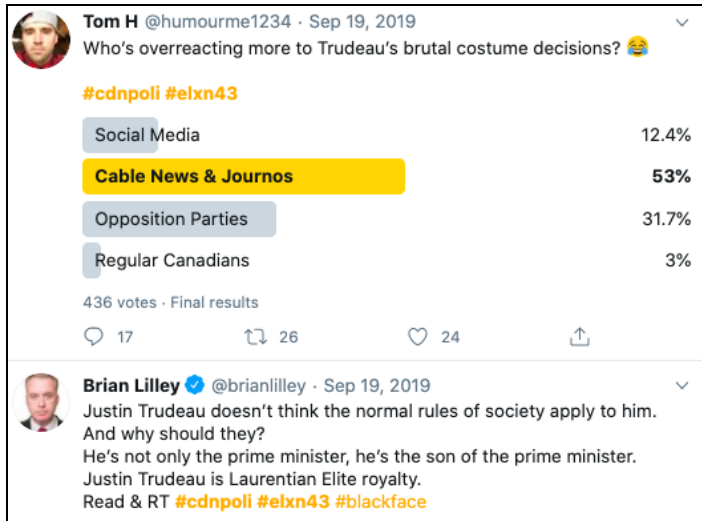
discussed in both types of media suggested some type of intermedia agenda setting was happening, which leads us to RQ3.

In terms of intermedia-agenda setting, the findings suggested strongly that the transfer of salience flowed almost completely in one direction from traditional media to Twitter with so many discussions using traditional media articles as a starting point. Traditional media, based on my findings, still sets its own agenda rather than following social media, including Twitter. In this particular newspaper dataset, there were only five mentions of Twitter, mostly as a tool for political operatives. The only exception was the Kinsella story (Haupt, 2019), which was definitely an example of Twitter's intermedia agenda setting capacity. This is relatively in keeping with previous studies that suggest traditional media maintains more intermedia agenda setting power than social media (Conway et al, 2015; Conway-Silva et al, 2018; Enli, 2017; Harder et al, 2017; Su & Borah, 2019), though perhaps my study suggested it more strongly than most of the literature due to the smaller data sample. Interestingly, the recent study by Posegga and Jungherr (2019), shows little correlation between the public and Twitter agendas or the traditional media and public agendas, but does show some similarity in issue salience between Twitter and traditional media. Of note, the authors acknowledged that a limitation to the generalizability of their study was that Twitter use in Germany is much lower than in other countries, especially the United States.

One interpretation of the evidence in my study that suggested traditional media is less reliant on social media than I expected, is that Canadian journalism is less inclined to use Twitter as a source for stories than the US traditional media, which obsessively covers Donald Trump's tweets (Enli, 2017; Pérez-Curiel & Naharro, 2019). Another factor may be that the single day per week sampling of only two newspapers may have impacted the evidence gathered on the transfer

of content between these two types of media and the flow of salience. It is possible that articles published on other days or stories produced by broadcast media or regional newspapers drew more directly from Twitter activity.

One of the most interesting findings came from looking at issue salience over time. This



analysis found that despite the fact that traditional media appeared to have heavy influence on Twitter issue salience, the fact that the issue rarely lasted more than a week seems significant. For example, the Trudeau brownface/blackface story got a huge spike during week 2,

when the sample was collected the day after the *Time* story broke and on the day of Trudeau's apology (Stephenson & Armstrong, 2019; Walsh et al. 2019). On September 19th, 166 out of 179 or 97.7% of all code mentions in the Trudeau scandals issue group were talking about the revelations. Of those, 52% were critical, 25.7% were supportive and 22.2% were neutral. However, by the following week's data collection on September 27, 2019, there were only two individual code mentions, one critical and one supportive.

A similar drop off pattern held true for all the other breaking stories in the timeline in figure 4.13 except for the climate change issue. It spiked in week 3 on the day of the global climate strike (Perreaux, 2019), there were 48 mentions. Tweet codes then decreased to 16 and plateaued with 18 and 16 mentions respectively over the last three weeks of the campaign, indicating a sustained level of interest until the end of the election. This suggested that climate

change may have been an issue that had salience of its own on Twitter due to public sentiment or perhaps due, in some part, to the activity of advocates who can now bypass traditional media gatekeepers to directly raise awareness for their causes on social media platforms (Conway et al, 2015; Enli, 2017; McGregor & Molyneux, 2018). Either way, the evidence suggested that the intermedia agenda setting effects from traditional media are not necessarily long lasting on Twitter. Exploring the reason for this was beyond the scope of this study, but it would be an interesting area for exploration in future research.

In terms of Twitter's influence on public opinion, there seems to be some consensus that the demographics of Twitter tend to skew towards the more liberal, educated and affluent in society and may not be an accurate tool for gauging general public opinion (Logan & Molyneux, 2018; Murthy, 2018). On initial reading, the evidence in my data sample suggested that Twitter had minimal influence on public opinion because of its less than significant impact on traditional media coverage. However, I would posit that from an impressionistic examination of sentiment (Small, 2010) in my findings, that the sustained interest in climate change on Twitter may be more representative of general public opinion than not. Similarly, the quick loss of interest in the Trudeau brownface/blackface scandal coupled with the number of tweets that were either supportive or neutral (47.9%), which was far larger than I expected, seemed to mirror Trudeau's squeaked out win in the 2019 election. An outcome that was also reflected by the political activity on Twitter. Of the 670 code mentions that were tagged as positive or negative sentiment about a political party, most were applied to either the Liberal or Conservative Parties of Canada. The LPC garnered 149 negative mentions and 79 positive, while the CPC received 217 that were negative and 73 that were positive. Now I realize this is an extremely simplistic analysis of sentiment, however again, the higher negative sentiment towards the Conservatives, ultimately



seemed representative of the parliamentary election results, if not the popular vote ("2019 Canadian," n.d.). Figure 4.16 shows the positive and negative sentiment towards political parties on Twitter. The percentages indicated are of the total number of tweets that expressed sentiment towards a political party.

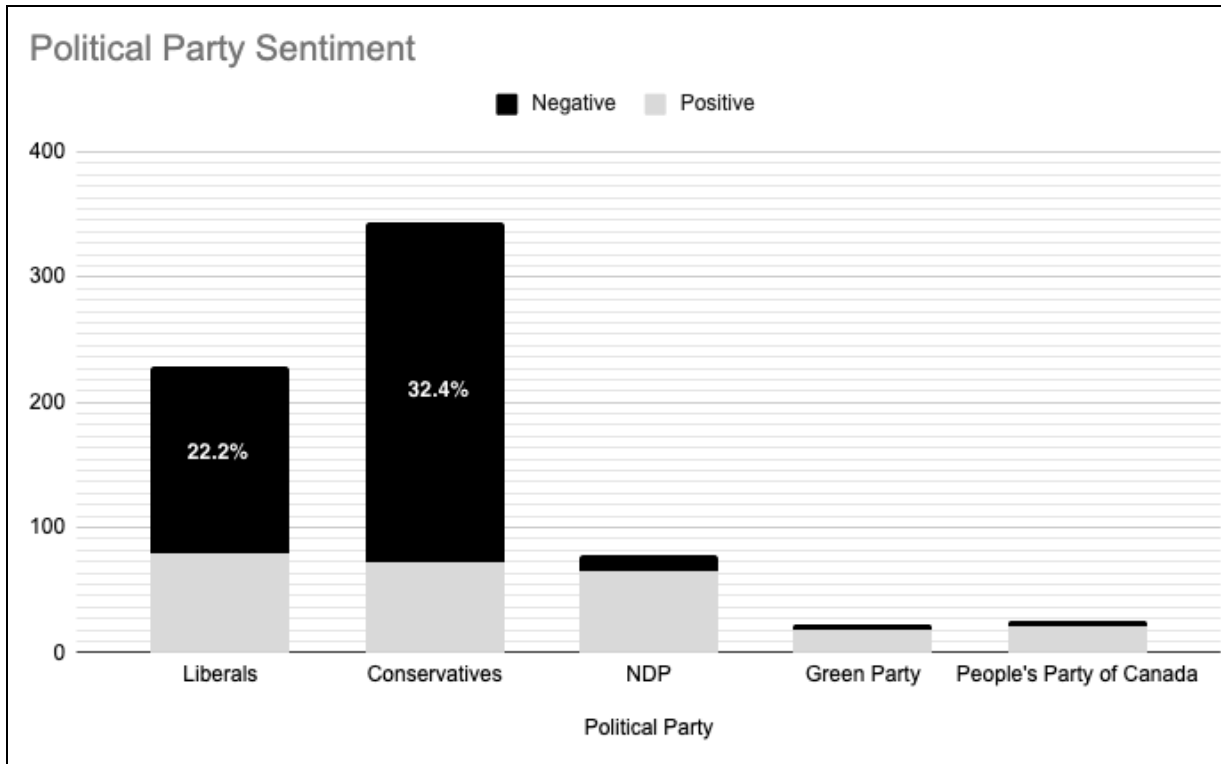


Figure 4.16. Political Party Sentiment on Twitter

This interpretation of my findings came from the intensive coding process used to generate the analysis of the data. In total 5,872 code mentions were generated from the two datasets, but those came from successive readings of the data. Initially, I simply coded by issue, but I began to observe, due in large part to the “non-informative” character of Twitter, that I needed to go back and code for various sides of particular issues in order to get a more complete understanding of the data. For example, at first, I simply gave one code to contentious issues like climate change or the various political scandals. However, I soon discovered that there were three types of comments about the various controversies; those that were neutral, largely from

news organizations simply reporting on a particular story, those that were critical, and those that indicated support of the issue, person or political party. So I felt it necessary to separate the differences out in the coding for a more comprehensive understanding of the data for content analysis.

### **Limitations of Study**

Limitations of this study include, but are not limited to, the “constructed week” data collection strategy (Kim et al, 2018; Riff et al, 1996) which may not have been representative enough. For the newspapers, a salient issue may have been missed if a story was not published on the day of data collection. This is less of an issue with the Twitter data collection, however, by relying on the social media platform’s proprietary algorithm to gather “top tweets,” the lack of transparency around how the algorithm is developed, may also have produced some undisclosed bias in the data sample. Additionally, I did not quantitatively factor in the engagement levels of each tweet. That is, I simply used the coding scheme to measure issue salience rather than looking at the number of retweets, likes and comments from each post. The primary rationale for this is the escalation of bad actors and bots trying to “attention hack” (Marwick & Lewis, 2017, Wojcik, et al, 2018) or raise the profile of particular issues or points of view by artificially boosting engagement metrics. However, even individual tweets can be posted by bots (Jeffrey, 2019; Marwick & Lewis, 2017; Stanley-Becker, 2019), so the problem could not be avoided altogether.

Another limitation of my analysis is that I did not obtain an independent coder to verify the efficacy of my coding scheme as suggested by Denscombe (2010), largely due to the resource and time constraints of the scope of this capstone project. However I followed the recommended practice of being explicit and transparent about the coding procedure, and have

provided the raw collection and coding data in the appendices so the replicability of my results can be tested.

### **Conclusion**

The findings in this study were grounded in agenda setting and intermedia agenda setting theories. Simple count quantitative and qualitative content analysis were used to establish issue salience in both types of media and to analyze the data to answer the research problem of how Twitter influences traditional media, and public opinion by extension. The evidence showed that there was significant interaction between the two, however most of the intermedia agenda setting flowed from traditional media to Twitter, but only for short durations. The study also showed that there is capacity for intermedia agenda setting from Twitter to traditional media, although only one such example was revealed in this data sample.

The concluding chapter of this study will summarize the project findings and place the research within the context of the existing body of literature. It will also discuss potential areas of interest for future research.

## Chapter 5: Conclusion

For more than a decade, Twitter and traditional media have become increasingly intertwined with the production of journalism and its potential agenda setting impact on the public sphere. This seemed particularly evident as I was researching this capstone project during the run up to the consequential 2020 US presidential election with Twitter appearing to play an increasingly prominent source for stories in traditional media (Fischer & Walsh, 2020). As such, researching the agenda setting and intermedia agenda setting power of Twitter from a Canadian perspective seemed particularly relevant at this time in history. Thus, the primary research problem of this case study explores to what extent, if any, Twitter influenced the political coverage in traditional media, and by extension public opinion, during the 2019 Canadian federal election. Three specific research questions were posed in order to investigate the broader topic:

RQ1: What were the most salient issues covered by traditional media during the 2019 Canadian federal election?

RQ2: What were the most discussed topics on Twitter tagged with #Cdnpoli, #elxn43 or #elxn2019 during the election campaign?

RQ3: How did the discussion of the most salient issues in both types of media influence each other during the course of the election campaign?

This chapter will begin by providing a summary of the findings and discussion from the investigation of this research problem and questions. It will then situate the findings within the context of the existing body of academic scholarship as presented in the literature review, outline some limitations to the project and make professional recommendations. Finally, this chapter will suggest future directions for research into the relationship between traditional and social media and its impact on civic discourse and public opinion.

### Summary of Findings

The traditional media data was gathered from political coverage in the *National Post* and *The Globe and Mail* during a constructed week over the duration of the six week election campaign. The social media data was collected from Twitter's most popular Canadian political hashtags #cdnpoli, #elxn43 and #elxn2019 during the same time frame (Politwitter, Oct, 2019; Politwitter, Sep, 2019; Small, 2011). Mixed method content analysis was conducted based on a three step coding scheme which classified, categorized and grouped the data thematically in order to identify prominent issues and to enable an impressionistic sentiment analysis that could reveal whether Twitter opinion matched general public sentiment with regard to the outcome of the election.

Content analysis of the data sample revealed that the answer to the original research problem is that in Canada, Twitter seems to have had minimal influence on traditional media's coverage of the 2019 federal election, therefore the platform's influence on public opinion could not be substantiated either directly or indirectly. However, there is some indication that Twitter did mirror public sentiment to some degree in terms of similarities to the outcome of the election, which saw Justin Trudeau reelected as Prime Minister by a narrow margin to form a minority government. These conclusions were drawn from coding and analyzing the data to ascertain the answers to the three research questions mentioned above.

**Quantitative Analysis.** A simple count quantitative analysis was conducted to answer RQ1 and RQ2 in order to ascertain the most salient issues on Twitter and in traditional media, respectively. Analysis revealed that the six most salient issue groups in both types of media were the same, although their rankings varied slightly. The election race issue group was most salient in both types of media. The other top issues, no particular order of rank, were climate change,

economy/jobs/growth, race relations, national unity and Trudeau scandals. While the difference in rankings seems less significant due to possible margins of error in the coding scheme, the fact that the same six issues were found most salient in both suggest that some intermedia agenda setting occurred. This aligns with certain studies presented in the literature review (Conway et al 2015; Conway-Silva et al 2018; Enli, 2017; Harder et al 2017; Su & Borah, 2019).

**Qualitative Analysis.** The purpose of RQ3 was to deconstruct the intermedia agenda setting power of the two types of media through qualitative content analysis. It revealed that for the most part, traditional media set its own agenda and that the transfer of content tended to flow from the newspapers to Twitter, which is also similar to previous studies discussed (Conway et al 2015; Conway-Silva et al 2018; Enli, 2017; Harder et al 2017; Su & Borah, 2019). While there was some discussion in the newspapers of the impact of social media, including Twitter as a tool for political operatives during the election campaign, in general neither media organization relied on Twitter in any kind of agenda setting capacity. The only exception was the Warren Kinsella disinformation story published by the *G&M* (Haupt, 2019).

On the other hand, the findings show that Twitter tends to rely on traditional media to raise salience of particular issues, with news stories often being shared and then generating engagement by users. The conclusion to be drawn from these results is that traditional media still has greater agenda setting and intermedia agenda setting power than Twitter, which also aligns with prior studies (Conway et al, 2015; Conway-Silva et al, 2018; Enli, 2017; Groshek & Groshek, 2013; Harder et al, 2017; Posegga and Jungherr, 2019; Su & Borah, 2019).

Looking at issue salience over time, qualitative content analysis revealed that while traditional media did have intermedia agenda setting impact on Twitter, salience tended to spike at the time of media coverage of an issue, but discussion tended to drop off quickly. This seems

to suggest that while traditional media has intermedia agenda setting power, it may be limited by the attention span and interests of Twitter users. This seems to be a rather significant finding that certainly warrants further exploration in future research.

Finally the intensive coding process allowed for an impressionistic sentiment analysis that showed that Twitter users reflected, to some degree, the opinion of the general public as illustrated by the election results. That is, while tweeters were fairly critical of the scandal-ridden Trudeau government, they still preferred it by a slight margin to the CPC, which parallels the outcome of the election with the LPC losing its parliamentary majority from 2016, but still remaining in power. Again, this finding aligns with some previous studies that looked at Twitter as a reflection of public sentiment rather than as a predictor of it (DiGrazia et al, 2013; Bovet et al, 2018; Sanger & Warin, 2018).

### **Findings in Scholarly Context**

Guided by the literature review, this study attempts to make a modest academic contribution to research in agenda setting and intermedia agenda setting in Canada, which is still relatively understudied. It reveals that while intermedia agenda setting occurs between traditional media and Twitter in Canada, it mostly flows from traditional media to Twitter. These findings align with much of the scholarship presented in the literature review, which suggests that social media platforms may play an increasing role in shaping the public agenda or agendas but for now, the power tends to remain with traditional media (Anstead & O'Loughlin, 2015; Kruckeberg & Vujnovic, 2010; Lewis & Molyneux, 2018; Murthy, 2018; Self, 2010). However, this view isn't consensus by any stretch, as suggested by other scholars such as Posegga and Jungherr (2019) whose big data mixed method study revealed that there is little in common between Twitter and the public agenda; and even that the agenda setting between traditional

media and the microblogging platform are more reliant on the interests and attention spans of Twitter users than on the mainstream media's agenda setting power. This perspective is also partially supported by the findings in this capstone around the issue of climate change on Twitter when studied over time. As seen in figure 4.14, it remained a constant topic of salience throughout the election campaign despite the ebb and flow of newspaper coverage on the issue. Of particular interest is that my findings appear to show a difference between Canada and the U.S. with regard to the intensity of the relationship and the more bidirectional intermedia agenda setting between Twitter and traditional journalism.

### **Limitations of the Study**

Worth noting however, are the limitations to this study, primarily due to the small sample size and the "constructed week" data sampling technique which only looked at one specific day per week over the six week duration of the election campaign. The sample may well have missed salient issues that were published and/or discussed on non-sample days. Another limitation could be the focus on just newspapers for traditional media and just Twitter for social media. There may well be much greater bidirectional intermedia agenda setting between other types of traditional media such as broadcast journalism, and other social media platforms such as Facebook or YouTube.

### **Recommendations for Professional Practice**

In terms of professional journalistic practice, the ease with which disinformation can be spread on Twitter as evidenced by the Kinsella Twitter incident, suggests that media organizations, as well as regular users, must be wary of taking anything on Twitter at face value. While it was beyond the scope of this particular capstone to delve into the issue of attention hacking through bot engagement, the literature review revealed that bad actors in the U.S



alt-right movement were attempting to amplify negative sentiment against Trudeau and his Liberals (Stanley-Becker, 2019). While for now, Canadian media seems relatively immune to the lure of Twitter as a singular news source, the temptation remains as it appears to have become a necessary tool in this era of journalistic decline due to decreasing revenues and outdated business models (Lewis & Molyneux, 2018; Murthy, 2018).

### **Future Directions for Research**

Despite the intense interest in the interaction between traditional and social media over the last decade and a half, there are still a number of gaps in the research with regard to the Canadian context when it comes to their impact on each other and the public agenda. Given the dominance of American news on Canadian television, it would certainly be worth delving further into the similarities and differences between the US and Canadian broadcast and cable news outlets and how they intersect with social media platforms. Another area worthy of study would be to do more qualitative content analysis of sentiment on Twitter and other social networking platforms, comparing it to the sentiment expressed in public opinion polling. It would also be interesting to conduct comparative sentiment analysis between different social networking sites, as each have their own “cultures” and types of interactions. While social media may not be “the public” per Habermas (1991), various platforms may well be competing publics, all trying to impose their agendas on the public sphere.

Finally, this capstone project may also act as a scoping study for the basic research design. It could provide a template for future mixed method content analysis with a temporal component in order to compare the agenda setting power of traditional and social media. The design could be applied to larger datasets, different web 2.0 platforms or different geographical regions.

## Conclusion

As we enter the final stretch of the 2020 US Presidential election, Donald Trump's daily tweet storms will likely only increase in frequency and intensity and traditional media around the world will continue to devote newspaper column inches and hours of broadcast time to his attention hacking (Fischer & Walsh, 2020). Meanwhile, political operatives, partisans and advocates in Canada are also recognizing Twitter as a powerful communication channel that could allow them to bypass traditional media gatekeepers, and reach the public sphere more directly (Conway et al, 2015; Enli, 2017; Lewis & Molyneux, 2018; McGregor & Molyneux, 2018; Pérez-Curiel & Pilar Limón Naharro, 2019). Given this sociopolitical context, my capstone project undertook a mixed method content analysis of the relationship between old media newspapers, new media Twitter and their potential influence on public opinion. The findings revealed that Canadian traditional media is minimally reactive to Twitter and still tends to have greater intermedia agenda setting power on Twitter than vice versa, at least in the short term. This suggests that Twitter's agenda setting power on public opinion is not significant, however, the study does reveal that Twitter could have mirrored the political sentiment of the general public as Trudeau's LPC were viewed in a slightly more positive light than Scheer's CPC, which was reflected in the outcome of the election.

This study makes a minor contribution to the study of the impact of mass media, both traditional and social networks, on agenda setting and public opinion by focusing on the Canadian context. Professionally, I hope it aids in the understanding of both the benefits and pitfalls of Twitter as a journalistic tool.

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## Appendices

### Appendix A: Newspaper Codes & Groups

Name	Mentions	Groups	Comment
Abortion (May)	3	Gender Issues	
Abortion (Scheer)	4	Gender Issues, Scheer Scandals	
Abortion Rights	6	Gender Issues	
affordability	1	Economy/Jobs/Growth	
Aga Khan Scandal	1	Trudeau Scandals	
Alt-right Media	2	Culture War, Media	
Bill 21	7	Diversity/Immigration/Race Relations, National Unity/Regional Angst	Quebec bill which bars public-sector employees from wearing religious symbols - such as the turban he wears - at work
Blackface/Brownface	22	Diversity/Immigration/Race Relations, Trudeau Scandals	
Capital Gains Tax	1	Taxes	
Carbon Emissions	3	Climate Change	
Carbon Tax	13	Climate Change	election issue
Character/Values/Ethics	10	Character/Ethics/Leadership	Scandals/Controversies about party leaders or members
Clean Drinking Water	3	Indigenous Issues	
Climate Change (dismissive)	3	Climate Change	
Climate Change (neutral)	11	Climate Change	
Climate Change (Supportive)	15	Climate Change	
Climate denial	1	Climate Change	
Conservative vote	3	Election Race	
Corporate lobbying	2	Political Spin	
Corporate Tax Loopholes	1	Taxes	
Crime	1	Crime/Guns/Drugs	
Culture War/Identity Politics	4	Culture War	
Debates	10	Election Race	
Debt/Deficit/Budget	5	Economy/Jobs/Growth	
Disinformation	4	Digital/Social Media	
Digital Disruption	1	Digital/Social Media	
Digital Divide	1	Digital/Social Media	
Dirty Politics	1	Political Spin	
Disgruntled Electorate	7	Culture War	LTE
Disinformation	4	Digital/Social Media	Disinformation
Diversity/Multiculturalism	6	Diversity/Immigration/Race Relations	
Dual Citizenship Scandal (scheer)	7	Scheer Scandals	
Economic Inequality	1	Economy/Jobs/Growth	



Election Laws	1	Election Race	
Election Process	1	Election Race	
Election Race	35	Election Race	
Electoral Reform	7	Electoral Reform	
Foreign Election Interference	2	Election Race	
Gender Equity	2	Gender Issues	
Global leadership/recognition	3	Character/Ethics/Leadership	
Guns	1	Crime/Guns/Drugs	mandatory minimum sentences for gun crimes
Health/Pharmacare	7	Health/Pharmacare	
Homophobia	0	LGBTQ Issues	
Housing/Cost of Living	7	Economy/Jobs/Growth	not directly dealing with the election
HRT Ruling Appeal	1	Indigenous Issues	
hypocrisy	6	Character/Ethics/Leadership	
Immigration (anti)	7	Diversity/Immigration/Race Relations	
Immigration/Refugees	5	Diversity/Immigration/Race Relations	
Income inequality	1	Economy/Jobs/Growth	
India trip	1	Trudeau Scandals	
Indigenous Funding	1	Indigenous Issues	
Indigenous Issues	7	Indigenous Issues	
Infrastructure/Transit	5	Economy/Jobs/Growth	
Insurance broker scandal (scheer)	3	Scheer Scandals	
Internal Trade Barriers	1	Economy/Jobs/Growth	
Jobs/Economy/Growth	11	Economy/Jobs/Growth	
Jobs/Funding Cuts	1	Economy/Jobs/Growth	
Kinsella Scandal	5	Miscellaneous	
Labour Issues	2	Economy/Jobs/Growth	
Language laws	1	National Unity/Regional Angst	
Media Access	2	Media	
Middle Class Voters	1	Culture War, Election Race	
Minority Government/Coalitions	14	Election Race	
Obama Endorsement	2	Character/Ethics/Leadership	
Oil and Gas Sector	8	Energy Sector	
Opinion Polls	8	Election Race	
Opioid Crisis	1	Crime/Guns/Drugs	
Party Politics/Leadership	16	Character/Ethics/Leadership	specific party scandals lumped together
pipelines	20	Climate Change, Energy Sector	election issue
political advertising	3	Political Spin	
political polarization	5	Culture War	
popular vote	1	Election Race	

privacy	1	Digital/Social Media	
Pro-big business	1	Miscellaneous	
Progressive Agenda	3	Culture War	
Progressive vote	2	Election Race	
Quebec nationalism	12	National Unity/Regional Angst	
racism	9	Diversity/Immigration/Race Relations	
Reconciliation	2	Indigenous Issues	
Regional differences/Canadian Unity	17	National Unity/Regional Angst	
Regressive Politics	1	Culture War	
religious votes	2	Election Race	
rural vs urban differences	1	Culture War	
same-sex marriage	7	LGBTQ Issues	
Scheer homophobia	3	LGBTQ Issues, Scheer Scandals	
SNC-Lavalin	23	Trudeau Scandals	Scandals
Social Justice	1	Crime/Guns/Drugs	
Social Media Impact	5	Digital/Social Media	
Tax Cuts	5	Taxes	
Tax Increases	1	Taxes	
Taxes	11	Taxes	
Trade and Foreign Policy	6	Trade/Foreign Policy	includes US/Canada relationship and Trump
Trudeau Record/Credibility	3	Character/Ethics/Leadership	
Trump Comparison	5	Culture War	
Twitter Mention	5	Digital/Social Media, Media	
Vote Splitting/Strategic Voting	9	Election Race	
Western Alienation	12	National Unity/Regional Angst	

## Appendix B: Twitter Codes & Groups

Name	Mentions	Groups	Comment
#MeToo Story Injunction (Fake Story)	16	Digital Disinformation	
Abortion (May)	1	Elizabeth May Scandals	
Abortion (Scheer)	10	Gender Issues	
Advocacy Group	38	Tweeter Categories	
Affordability/Inflation	3	Economy/Growth/Jobs	
Alberta economic crisis	1	Economy/Growth/Jobs, National Unity	
Alt Right Media	4	Culture War, Media	
Animal Rights	2	Miscellaneous	
Anti-Communism	1	Canadian Values/Pride	
Antisemitism (alleged)	6	Race Relations	

Antemitism (dismissive)	2	Race Relations	
Brownface/blackface (critical)	104	Trudeau Scandals	
Brownface/blackface (neutral)	40	Trudeau Scandals	
Brownface/blackface (supportive)	45	Trudeau Scandals	
Call to action	37	Doc Non Informative	
Campaign Donations	1	Election Race	
campaign promises	4	Election Race	
Campaign Vandalism	5	Election Race	
Campaigning	53	Election Race	
Canadian Unity (general)	7	Canadian Values/Pride	
Canadian values	1	Canadian Values/Pride	
Cancel Culture	2	Culture War	
Cannabis	4	Crime/Drugs/Guns	
capital gains tax (Fake story)	5	Conspiracy Theories/Fake News	
carbon offsets	1	Climate Change	
Carbon tax (critical)	5	Climate Change, Taxes	
Carbon tax (neutral)	3	Climate Change, Taxes	
Carbon tax (pro)	6	Climate Change, Taxes	
Celebrity	7	Tweeter Categories	
child poverty	1	Children/Education	
child tax benefit	2	Children/Education	
Childcare	3	Children/Education	
China hostages	1	Trade/Foreign Affairs	
Clean drinking water	18	Indigenous Issues	
Climate Change (dismissive)	9	Climate Change	
Climate Change (neutral)	11	Climate Change	
Climate Change (supportive)	84	Climate Change	
Climate Denial	4	Climate Change	
Coal miners	1	Culture War	
Communist Party	2	Miscellaneous	
Corporate Tax Loopholes	4	Taxes	
Corporate/Wealthy Tax cuts	1	Taxes	
CPC (anti)	217	Tweeter Categories	
CPC (pro)	73	Tweeter Categories	
CPC-PPC coalition	1	Election Race	
CPC-PPC-GPC coalition	2	Election Race	
Criminal Code Reform	6	Crime/Drugs/Guns	
Debt/Deficit/Budget	12	Economy/Growth/Jobs	
Digital Disruption	2	Digital/Social Media	

Digital Media	81	Tweeter Categories	Any journalistic endeavor that is exclusively digital or online.
Dirty Politics	15	Political Spin	
Disinformation	25	Digital/Social Media	
Diversity	14	Race Relations	
Donor List (Scheer)	2	Scheer Scandals	
Drug decriminalization	1	Crime/Drugs/Guns	
Dual Citizenship Scandal (Scheer)	30	Scheer Scandals	
E. May citizenship spec	1	Elizabeth May Scandals	
Education	10	Children/Education	
Election Interference	5	Election Race	
Election Interference (from Trumpists)	6	Culture War, Election Race	
Election aftermath	13	Election Race	
Election anxiety	5	Election Race	
Election Laws	4	Election Race	
Election Race	81	Election Race	General comments about election race, candidates campaigning, etc.Merged comment from Election Campaigning on 2020-07-16, 12:17 PMcandidates campaigning
Election reaction (CPC)	6	Election Race	
Election Results	7	Election Race	
Electoral Reform	10	Electoral Reform	
Equalization Formula	7	National Unity	
Event/Programming information	29	Doc Informative	
Excluded	21	Excluded	Tweet does not directly refer to election and is usually found in #cdnpoli.
Excluded - duplicate tweet	23	Excluded	
Excluded - transfer mistake	6	Excluded	
Facebook	1	Digital/Social Media	
Fiscally Conservative, Socially Liberal	1	Culture War	
Fisheries	1	Economy/Growth/Jobs	
fossil fuel subsidies	1	Economy/Growth/Jobs	
Free Trade/Globalism	3	Trade/Foreign Affairs	
Freedom of Expression	6	Media	
Freedom of Religion	1	Canadian Values/Pride	
Fundraising	1	Election Race	
Gender Issues	8	Gender Issues	
Gender Representation	3	Gender Issues	
Get out the vote	4	Election Race	
Global leadership/recognition	11	Leadership/Character (general)	
GPC (anti)	5	Tweeter Categories	

GPC (pro)	18	Tweeter Categories	
Gun Control (anti)	6	Crime/Drugs/Guns	
Gun Control (pro)	8	Crime/Drugs/Guns	
Guns off streets	1	Crime/Drugs/Guns	
Health/Pharmacare	16	Health/Pharmacare	
Homelessness	1	Economy/Growth/Jobs	
Homophobic comments (Scheer)	17	LGBTQ Issues, Scheer Scandals	
Homophobic comments (Leung)	2	LGBTQ Issues	
Homophobic comments (Leung/Others)	6	LGBTQ Issues	
Homophobic/Sexist/Racist Comments (Battiste)	17	LGBTQ Issues	
Housing	9	Economy/Growth/Jobs	
Human Rights	1	Canadian Values/Pride	
Human Trafficking	1	Crime/Drugs/Guns	
Illegal immigration	2	Race Relations	
immigrant vote	3	Race Relations	
Immigration (anti)	3	Race Relations	
Immigration/Refugees (pro)	4	Race Relations	
Income Inequality/Wealth Tax	7	Taxes	
India Trip (Trudeau scandal)	3	Trudeau Scandals	
Indigenous Issues	29	Indigenous Issues	
Indigenous Vote	4	Indigenous Issues	
Information sharing	1	Doc Informative	
Internal party politics	1	Election Race	
internet access	1	Digital/Social Media	
Interprovincial Trade	1	Economy/Growth/Jobs	
Islamophobia	2	Race Relations	
Job/Funding Cuts	17	Economy/Growth/Jobs	
Jobs/Growth/Economy	14	Economy/Growth/Jobs	
Kinsella PPC scandal	1	Miscellaneous	
Labour Issues	2	Economy/Growth/Jobs	
Leaders Debates	17	Election Race	
Leadership/Character/Ethics/Hypocrisy (general)	90	Leadership/Character (general)	
LGBTQ Issues	8	LGBTQ Issues	
libel	1	Media	
Libraries	1	Election Race	
Lied about living with parents (Scheer)	1	Scheer Scandals	
LPC (anti)	149	Tweeter Categories	
LPC (pro)	105	Tweeter Categories	

LPC-NDP Coalition (pro)	3	Election Race	
LPC-NDP Coalition (anti)	9	Election Race	
LPC-NDP Coalition (neutral)	7	Election Race	
Media access	10	Media	
Media Criticism	56	Media	could include journalists being banned from events or criticism of media and election coverage
Media Criticism (supportive)	1	Media	
Media manipulation	1	Media	
Media Ownership	1	Media	
Mental Health	1	Health/Pharmacare	
Military Spending	2	Military Spending	
Minority Government	9	Election Race	
Missing/Murdered Indigenous Women	2	Indigenous Issues	
Nationalism	3	Culture War, Race Relations	
NDP (anti)	13	Tweeter Categories	
NDP (pro)	65	Tweeter Categories	
Oil & Gas Industry (anti)	6	Economy/Growth/Jobs	
Oil & Gas Industry (neutral)	1	Economy/Growth/Jobs	
Oil & Gas Industry (pro)	10	Economy/Growth/Jobs	
Ont Teachers Strike	5	Children/Education	
Opinion Polls	19	Doc Informative, Election Race	
Opinion/Humour/Personal	574	Doc Non Informative	
Opioid Crisis	1	Crime/Drugs/Guns	
Pensions	1	Economy/Growth/Jobs	
Pipelines (anti)	19	Climate Change, Economy/Growth/Jobs, National Unity	
Pipelines (pro)	8	Climate Change, Economy/Growth/Jobs, National Unity	
Polarization	7	Culture War	
Political Spin/Propaganda	12	Political Spin	
Political/Partisan	218	Tweeter Categories	
Politically Neutral	25	Tweeter Categories	
Popular Vote	3	Election Race	
Populism	2	Culture War	
PPC (anti)	4	Tweeter Categories	
PPC (pro)	21	Tweeter Categories	
Pride Parade (Scheer)	1	LGBTQ Issues, Scheer Scandals	
Privacy	1	Miscellaneous	
Privatization	3	Privatization	

Progressive Agenda (pro)	4	Culture War	
Progressive Vote	1	Culture War	
Progressives	3	Culture War	
Public Safety	1	Crime/Drugs/Guns	
Public Transit/Infrastructure	11	Economy/Growth/Jobs	
Racism	38	Race Relations	
Racism (dismissive)	7	Race Relations	
Racism (Quebec)	2	Race Relations	
Raise Taxes (pro)	1	Taxes	
Regressive Politics	3	Race Relations	
Regular person	566	Tweeter Categories	
Residential Schools	1	Indigenous Issues	
Resume scandal (Scheer)	9	Scheer Scandals	
Right to Die	2	Miscellaneous	
Safe Streets	3	Crime/Drugs/Guns	
Scheer assaulted/heckled	1	Election Race	
Science Issues	1	Children/Education	
Seniors	3	Seniors	
Sex Workers	1	Crime/Drugs/Guns, Gender Issues	
Sexism	2	Gender Issues	
Small Government	1	Miscellaneous	
snc-lavalin (scheer)	1	Scheer Scandals	
SNC-lavalin (supportive)	13	Trudeau Scandals	
SNC-lavalin critical)	13	Trudeau Scandals	
Social Conservatism	3	Culture War	
Social Justice	3	Crime/Drugs/Guns	
social media influence	1	Digital/Social Media	
social safety net	1	Economy/Growth/Jobs	
special needs	2	Health/Pharmacare	
Story Share	121	Doc Informative	Politically neutral
Story Share with commentary	234	Doc Non Informative	Share story but with comment added or a quote pulled to indicate posters' sentiments
Strategic Voting (anti)	11	Election Race	
strategic voting (neutral)	3	Election Race	
strategic voting (pro)	4	Election Race	
Suicide Rates	1	Health/Pharmacare	
Tax cuts	6	Taxes	
Tax increases	6	Taxes	
Terroism (dismissive)	1	Crime/Drugs/Guns	
Traditional Media	133	Tweeter Categories	Can include story shares and Twitter "reporting" from mainstream media journalists/orgs (print/tv/radio)
Treasury Board scandal	1	Trudeau Scandals	

Tree Planting	3	Climate Change	
Trudeau assaulted/heckled/threatened	7	Election Race	
Trudeau Groping Scandal	3	Trudeau Scandals	
Trudeau marriage speculation	1	Trudeau Scandals	
Trudeau Teacher/Student spec	2	Trudeau Scandals	
Trudeau Two Planes	6	Climate Change, Trudeau Scandals	Trudeau Hypocrisy
Trump Comparison	2	Culture War	
Trump Influence	14	Trump Influence	
urban/rural split	1	National Unity	
Vet affairs murder (conspiracy)	3	Conspiracy Theories/Fake News	
Vote Splitting	2	Election Race	
Voter Suppression	2	Election Race	
Voting fraud scandal (Kenny)	2	Election Race	
Western Angst (dismissive)	9	National Unity	
Western Angst (expression of)	13	National Unity	
Wexit (anti)	18	National Unity	
Wexit (pro)	2	National Unity	
White Supremacy/Alt-right	8	Culture War, Race Relations	
women of colour	1	Race Relations	
Yellow Vests (anti CPC)	8	Culture War, Race Relations	
Yellow Vests (dismissive)	1	Culture War, Race Relations	
Youth vote	14	Election Race	

### Appendix C: Newspapers Code Mentions Over time

	Week 1 Wed Sep 11, 2019 Gr=34; GS=13	Week 2 Thu Sep 19, 2019 Gr=19; GS=6	Week 3 Fri Sep 27, 2019 Gr=30; GS=9	Week 4 Sat-Sun Oct 5-6, 2019 Gr=98; GS=22	Week 5 Mon Oct 14, 2019 Gr=29; GS=4	Week 6 Tue Oct 22, 2019 Gr=203; GS=46	Totals
○ <b>Abortion (May)</b> Gr=3	0	0	0	1	0	2	3
○ <b>Abortion (Scheer)</b> Gr=4	0	0	0	1	0	3	4
○ <b>Abortion Rights</b> Gr=6	1	0	1	2	1	1	6
○ <b>affordability</b> Gr=1	0	0	0	0	0	1	1
○ <b>Aga Khan Scandal</b> Gr=1	0	1	0	0	0	0	1
○ <b>Alt-right Media</b> Gr=2	0	0	1	1	0	0	2
○ <b>Bill 21</b> Gr=7	0	0	1	1	0	5	7



○ <b>Blackface/Brownface</b> Gr=22	0	4	4	3	0	11	22
○ <b>Capital Gains Tax</b> Gr=1	0	0	0	1	0	0	1
○ <b>Carbon Emissions</b> Gr=3	0	0	1	1	0	1	3
○ <b>Carbon Tax</b> Gr=13	3	0	0	1	0	9	13
○ <b>Character/Values/Ethics</b> Gr=10	1	3	1	2	0	3	10
○ <b>Clean Drinking Water</b> Gr=3	0	0	0	3	0	0	3
○ <b>Climate Change (dismissive)</b> Gr=3	1	0	0	0	1	1	3
○ <b>Climate Change (neutral)</b> Gr=11	1	0	1	3	0	6	11
○ <b>Climate Change (Supportive)</b> Gr=15	2	1	1	2	1	8	15
○ <b>Climate denial</b> Gr=1	0	0	0	1	0	0	1
○ <b>Conservative vote</b> Gr=3	0	0	0	1	0	2	3
○ <b>Corporate lobbying</b> Gr=2	0	0	0	2	0	0	2
○ <b>Corporate Tax Loopholes</b> Gr=1	0	0	0	1	0	0	1
○ <b>Crime</b> Gr=1	0	1	0	0	0	0	1
○ <b>Culture War/Identity Politics</b> Gr=4	1	0	0	1	1	1	4
○ <b>Debates</b> Gr=10	1	0	0	3	1	5	10
○ <b>Debt/Deficit/Budget</b> Gr=5	0	0	0	2	0	3	5
○ <b>Digital Disruption</b> Gr=1	0	0	0	1	0	0	1
○ <b>Digital Divide</b> Gr=1	0	0	0	0	0	1	1
○ <b>Dirty Politics</b> Gr=1	0	0	0	0	0	1	1
○ <b>Disgruntled Electorate</b> Gr=7	0	0	0	1	2	4	7

○ <b>Disinformation</b> Gr=4	1	0	0	1	0	2	4
○ <b>Diversity/Multiculturalism</b> Gr=6	0	0	1	2	0	3	6
○ <b>Dual Citizenship Scandal (scheer)</b> Gr=7	0	0	0	2	0	5	7
○ <b>Economic Inequality</b> Gr=1	0	0	0	1	0	0	1
○ <b>Election Laws</b> Gr=1	0	0	0	0	0	1	1
○ <b>Election Process</b> Gr=1	0	0	0	0	0	1	1
○ <b>Election Race</b> Gr=35	5	1	1	6	2	20	35
○ <b>Electoral Reform</b> Gr=7	0	0	0	1	2	4	7
○ <b>Foreign Election Interference</b> Gr=2	0	0	0	0	0	2	2
○ <b>Gender Equity</b> Gr=2	0	0	0	1	0	1	2
○ <b>Global leadership/recognition</b> Gr=3	0	0	0	0	1	2	3
○ <b>Guns</b> Gr=1	0	0	0	1	0	0	1
○ <b>Health/Pharmacare</b> Gr=7	1	1	0	1	0	4	7
○ <b>Homophobia</b> Gr=0	0	0	0	0	0	0	0
○ <b>Housing/Cost of Living</b> Gr=7	0	0	0	4	0	3	7
○ <b>HRT Ruling Appeal</b> Gr=1	0	0	0	1	0	0	1
○ <b>hypocrisy</b> Gr=6	0	1	1	2	0	2	6
○ <b>Immigration (anti)</b> Gr=7	0	0	3	2	1	1	7
○ <b>Immigration/Refugees</b> Gr=5	0	1	0	2	0	2	5
○ <b>Income inequality</b> Gr=1	0	0	0	1	0	0	1
○ <b>India trip</b> Gr=1	0	0	0	1	0	0	1
○ <b>Indigenous Funding</b> Gr=1	0	0	0	1	0	0	1

○ <b>Indigenous Issues</b> Gr=7	0	1	1	1	0	4	7
○ <b>Infrastructure/Transit</b> Gr=5	0	1	0	1	0	3	5
○ <b>Insurance broker scandal (Scheer)</b> Gr=3	0	0	0	0	0	3	3
○ <b>Internal Trade Barriers</b> Gr=1	0	0	0	0	0	1	1
○ <b>Jobs/Economy/Growth</b> Gr=11	2	1	1	5	0	2	11
○ <b>Jobs/Funding Cuts</b> Gr=1	1	0	0	0	0	0	1
○ <b>Kinsella Scandal</b> Gr=5	0	0	0	0	0	5	5
○ <b>Labour Issues</b> Gr=2	1	0	0	1	0	0	2
○ <b>Language laws</b> Gr=1	0	0	0	0	0	1	1
○ <b>Media Access</b> Gr=2	0	0	1	0	0	1	2
○ <b>Middle Class Voters</b> Gr=1	1	0	0	0	0	0	1
○ <b>Minority Government/Coalitions</b> Gr=14	0	0	0	3	2	9	14
○ <b>Obama Endorsement</b> Gr=2	0	0	0	0	0	2	2
○ <b>Oil and Gas Sector</b> Gr=8	0	0	0	3	0	5	8
○ <b>Opinion Polls</b> Gr=8	2	2	1	2	1	0	8
○ <b>Opioid Crisis</b> Gr=1	0	0	0	0	0	1	1
○ <b>Party Politics/Leadership</b> Gr=16	0	0	0	2	1	13	16
○ <b>pipelines</b> Gr=20	2	1	1	3	1	12	20
○ <b>political advertising</b> Gr=3	1	0	1	1	0	0	3
○ <b>political polarization</b> Gr=5	0	0	0	1	0	4	5
○ <b>popular vote</b> Gr=1	0	0	0	0	0	1	1

○ privacy Gr=1	0	0	1	0	0	0	1
○ Pro-big business Gr=1	0	0	0	1	0	0	1
○ Progressive Agenda Gr=3	1	0	0	0	0	2	3
○ Progressive vote Gr=2	0	0	0	1	0	1	2
○ Quebec nationalism Gr=12	0	0	0	2	2	8	12
○ racism Gr=9	1	3	1	1	0	3	9
○ Reconciliation Gr=2	0	0	0	1	0	1	2
○ Regional differences/Canadian Unity Gr=17	1	0	1	3	3	9	17
○ Regressive Politics Gr=1	1	0	0	0	0	0	1
○ religious votes Gr=2	0	0	0	1	1	0	2
○ rural vs urban differences Gr=1	0	0	0	0	0	1	1
○ same-sex marriage Gr=6	0	0	1	0	1	4	6
○ Scheer homophobia Gr=4	1	1	0	1	0	1	4
○ SNC-Lavalin Gr=23	2	1	2	6	1	11	23
○ Social Justice Gr=1	0	0	0	0	0	1	1
○ Social Media Impact Gr=5	2	1	1	0	0	1	5
○ Tax Cuts Gr=5	1	0	0	0	0	4	5
○ Tax Increases Gr=1	1	0	0	0	0	0	1
○ Taxes Gr=11	1	0	1	4	0	5	11
○ Trade and Foreign Policy Gr=6	0	0	1	0	2	3	6
○ Trudeau Record/Credibility Gr=3	1	1	0	0	0	1	3
○ Trump Comparison Gr=5	0	0	0	1	1	3	5
○ Twitter Mention Gr=5	2	0	0	1	0	2	5

○ Vote Splitting/Strategic Voting Gr=9	0	0	0	4	2	3	9
○ Western Alienation Gr=12	0	0	0	1	2	9	12
Character/Ethics/Leadership Gr=40; GS=6	2	5	2	6	2	23	40
Climate Change Gr=61; GS=7	8	2	4	11	3	33	61
Crime/Guns/Drugs Gr=4; GS=4	0	1	0	1	0	2	4
Culture War Gr=29; GS=9	4	0	1	5	4	15	29
Digital/Social Media Gr=17; GS=6	5	1	2	3	0	6	17
Disinformation Gr=4; GS=1	1	0	0	1	0	2	4
Diversity/Immigration/Race Relations Gr=53; GS=6	1	7	10	10	1	24	53
Economy/Jobs/Growth Gr=30; GS=10	3	2	1	12	0	12	30
Election Race Gr=81; GS=13	8	3	2	18	8	42	81
Electoral Reform Gr=7; GS=1	0	0	0	1	2	4	7
Energy Sector Gr=27; GS=2	2	1	1	6	1	16	27
Gender Issues Gr=15; GS=4	1	0	1	5	1	7	15
Health/Pharmacare Gr=7; GS=1	1	1	0	1	0	4	7
Indigenous Issues Gr=14; GS=5	0	1	1	7	0	5	14
LGBTQ Issues Gr=10; GS=3	1	1	1	1	1	5	10
Media Gr=9; GS=3	2	0	2	2	0	3	9
Miscellaneous Gr=6; GS=2	0	0	0	1	0	5	6
National Unity/Regional Angst Gr=45; GS=5	1	0	2	7	4	31	45
Political Spin Gr=6; GS=3	1	0	1	3	0	1	6
Scheer Scandals Gr=15; GS=4	1	1	0	3	0	10	15
Taxes Gr=18; GS=5	3	0	1	5	0	9	18

<b>Trade/Foreign Policy</b> Gr=6; GS=1	0	0	1	0	2	3	6
<b>Trudeau Scandals</b> Gr=43; GS=4	2	6	6	7	1	21	43
<b>Totals</b>	90	59	71	232	63	544	1059

**Appendix D: Twitter Code Mentions Over time**

	Twitter Week 1 Sep 11.pdf Gr=112	Twitter Week 2 Sep 19.pdf Gr=287	Twitter Week 4 Oct 5.pdf Gr=452	Twitter Week 2 Sept 19 cont.pdf Gr=16	Twitter Week 3 Sep 27.pdf Gr=124	Twitter Week 6 Oct 22.pdf Gr=234	Twitter Week 5 Oct 14.pdf Gr=304	Twitter Week 4 Oct 5 cont.pdf Gr=21	Twitter Week 4 Oct 6 .pdf Gr=352	Totals
○ #MeToo Story <b>Injunction (Fake Story)</b> Gr=16	0	0	8	0	0	0	0	2	6	16
○ <b>Abortion (May)</b> Gr=1	1	0	0	0	0	0	0	0	0	1
○ <b>Abortion (Scheer)</b> Gr=10	0	1	4	1	1	0	2	0	1	10
○ <b>Advocacy Group</b> Gr=38	2	2	4	0	8	7	9	0	6	38
○ <b>Affordability/Inflation</b> Gr=3	0	0	2	0	0	0	1	0	0	3
○ <b>Alberta economic crisis</b> Gr=1	0	0	1	0	0	0	0	0	0	1
○ <b>Altight Media</b> Gr=4	0	0	2	0	0	0	1	0	1	4
○ <b>Animal Rights</b> Gr=2	0	0	0	0	1	1	0	0	0	2
○ <b>Anti Communism</b> Gr=1	0	0	0	0	1	0	0	0	0	1
○ <b>Antisemitism (alleged)</b> Gr=6	0	0	1	0	3	0	2	0	0	6
○ <b>Antisemitism (dismissive)</b> Gr=2	0	1	1	0	0	0	0	0	0	2
○ <b>Brownface/blackface (critical)</b> Gr=104	0	90	3	1	1	2	3	0	4	104
○ <b>Brownface/blackface (neutral)</b> Gr=40	0	36	0	3	1	0	0	0	0	40
○ <b>Brownface/blackface (supportive)</b> Gr=45	0	40	0	5	0	0	0	0	0	45
● <b>Call to action</b> Gr=37	5	1	11	0	3	2	7	1	7	37
○ <b>Campaign Donations</b>	0	0	1	0	0	0	0	0	0	1

Gr=1										
o campaign promises Gr=4	0	0	3	0	0	0	0	0	1	4
o Campaign Vandalism Gr=5	0	0	1	0	0	0	1	0	3	5
o Campaigning Gr=53	6	1	21	0	2	0	0	1	22	53
o Canadian Unity (general) Gr=7	1	0	1	0	0	2	1	0	2	7
o Canadian values Gr=1	0	0	0	0	0	1	0	0	0	1
o Cancel Culture Gr=2	0	1	0	1	0	0	0	0	0	2
o Cannabis Gr=4	2	1	1	0	0	0	0	0	0	4
o capital gains tax (Fake story) Gr=5	0	0	1	0	0	0	1	0	3	5
o carbon offsets Gr=1	0	0	0	0	0	0	0	0	1	1
o Carbon tax (critical) Gr=5	4	0	0	0	0	1	0	0	0	5
o Carbon tax (neutral) Gr=3	0	0	0	0	1	0	1	0	1	3
o Carbon tax (pro) Gr=6	0	0	1	0	0	2	1	0	2	6
o Celebrity Gr=7	0	0	1	0	1	3	1	0	1	7
o child poverty Gr=1	0	0	1	0	0	0	0	0	0	1
o child tax benefit Gr=2	0	0	0	0	0	0	0	0	2	2
o Childcare Gr=3	0	0	0	0	1	0	1	0	1	3
o China hostages Gr=1	0	1	0	0	0	0	0	0	0	1
o Clean drinking water Gr=18	0	0	16	0	0	0	0	0	2	18
o Climate Change (dismissive) Gr=9	0	0	4	0	4	0	0	0	1	9
o Climate Change (neutral) Gr=11	0	0	3	0	6	2	0	0	0	11
o Climate Change (supportive) Gr=84	5	8	9	0	35	9	12	1	5	84
o Climate Denial Gr=4	0	0	1	0	0	0	1	0	2	4

○ Coal miners Gr=1	0	0	0	0	0	0	1	0	0	1
○ Communist Party Gr=2	0	0	0	0	2	0	0	0	0	2
○ Corporate Tax Loopholes Gr=4	0	1	0	0	1	0	2	0	0	4
○ Corporate/Wealthy Tax cuts Gr=1	0	0	0	0	0	0	1	0	0	1
● CPC (anti) Gr=217	22	46	38	1	25	28	30	2	25	217
● CPC (pro) Gr=73	5	7	29	0	5	0	16	1	10	73
○ CPC-PPC coalition Gr=1	0	0	0	0	0	0	1	0	0	1
○ CPC-PPC-GPC coalition Gr=2	0	0	0	0	0	0	0	0	2	2
○ Criminal Code Reform Gr=6	0	0	4	0	0	0	0	0	2	6
○ Debt/Deficit/Budget Gr=12	1	1	3	0	0	0	3	0	4	12
○ Digital Disruption Gr=2	0	1	0	0	0	0	0	0	1	2
● Digital Media Gr=81	2	20	19	0	8	10	13	0	9	81
○ Dirty Politics Gr=15	0	2	2	0	2	2	2	2	3	15
○ Disinformation Gr=10	1	0	4	0	3	0	0	0	2	10
○ Diversity Gr=14	3	8	3	0	0	0	0	0	0	14
○ Donor List (Scheer) Gr=2	0	0	1	0	0	0	0	0	1	2
○ Drug decriminalization Gr=1	0	0	0	0	0	0	1	0	0	1
○ Dual Citizenship Scandal (Scheer) Gr=30	0	0	13	0	0	3	0	2	12	30
○ E. May citizenship spec Gr=1	0	0	0	0	0	0	0	0	1	1
○ Education Gr=10	0	0	7	0	1	0	0	0	2	10
○ Election Interference Gr=5	0	4	0	0	0	1	0	0	0	5
○ Election Interference (from Trumpists) Gr=6	0	1	0	0	0	1	4	0	0	6



○ Election aftermath Gr=13	0	0	0	0	0	13	0	0	0	13
○ Election anxiety Gr=5	0	1	1	0	0	0	1	0	2	5
○ Election Laws Gr=4	0	0	1	0	0	1	2	0	0	4
○ Election Race Gr=81	14	7	8	0	4	9	35	0	4	81
○ Election reaction (CPC) Gr=6	0	0	0	0	0	6	0	0	0	6
○ Election Results Gr=7	0	0	0	0	0	7	0	0	0	7
○ Electoral Reform Gr=10	0	0	1	0	1	3	1	0	4	10
○ Equalization Formula Gr=7	0	0	0	0	0	6	0	0	1	7
○ Event/Programming information Gr=29	5	8	3	0	1	4	1	0	7	29
● Excluded Gr=21	6	3	2	0	1	2	3	0	4	21
● Excluded - duplicate tweet Gr=23	0	5	5	0	4	5	2	0	2	23
● Excluded - transfer mistake Gr=6	0	1	5	0	0	0	0	0	0	6
○ Facebook Gr=1	0	0	1	0	0	0	0	0	0	1
○ Fiscally Conservative, Socially Liberal Gr=1	0	0	1	0	0	0	0	0	0	1
○ Fisheries Gr=1	0	0	0	0	0	0	0	0	1	1
○ fossil fuel subsidies Gr=1	0	0	0	0	0	0	0	0	1	1
○ Free Trade/Globalism Gr=3	0	0	0	0	1	0	2	0	0	3
○ Freedom of Expression Gr=6	0	0	1	0	1	0	0	0	4	6
○ Freedom of Religion Gr=1	0	0	1	0	0	0	0	0	0	1
○ Fundraising Gr=1	0	0	1	0	0	0	0	0	0	1
○ Gender Issues Gr=8	0	2	2	0	0	2	1	0	1	8
○ Gender Representation Gr=3	0	0	0	0	0	2	1	0	0	3

○ <b>Get out the vote</b> Gr=4	0	0	2	0	2	0	0	0	0	4
○ <b>Global leadership/recognition</b> Gr=11	0	4	1	0	1	2	0	0	3	11
● <b>GPC (anti)</b> Gr=5	1	1	0	0	0	0	0	0	3	5
● <b>GPC (pro)</b> Gr=18	3	1	0	0	1	3	7	0	3	18
○ <b>Gun Control (anti)</b> Gr=6	0	0	2	0	1	0	2	0	1	6
○ <b>Gun Control (pro)</b> Gr=8	0	0	4	0	1	0	1	0	2	8
○ <b>Guns off streets</b> Gr=1	0	0	1	0	0	0	0	0	0	1
○ <b>Health/Pharmacare</b> Gr=16	1	3	6	0	1	1	2	0	2	16
○ <b>Homelessness</b> Gr=1	0	0	0	0	0	0	1	0	0	1
○ <b>Homophic comments (Scheer)</b> Gr=17	0	12	2	2	0	0	1	0	0	17
○ <b>Homophobic comments (Leung)</b> Gr=2	0	0	2	0	0	0	0	0	0	2
○ <b>Homophobic comments (Leung/Others)</b> Gr=6	0	0	5	0	0	0	0	0	1	6
○ <b>Homophobic/Sexist/Racist Comments (Battiste)</b> Gr=17	0	0	9	0	0	0	0	0	8	17
○ <b>Housing</b> Gr=9	0	2	3	0	0	0	1	1	2	9
○ <b>Human Rights</b> Gr=1	0	1	0	0	0	0	0	0	0	1
○ <b>Human Trafficking</b> Gr=1	0	0	1	0	0	0	0	0	0	1
○ <b>Illegal immigration</b> Gr=2	0	1	0	0	0	0	1	0	0	2
○ <b>immigrant vote</b> Gr=3	0	0	2	0	0	0	0	0	1	3
○ <b>Immigration (anti)</b> Gr=3	0	0	2	0	1	0	0	0	0	3
○ <b>Immigration/Refugees (pro)</b> Gr=4	0	1	1	0	0	0	2	0	0	4
○ <b>Income Inequality/Wealth Tax</b> Gr=7	1	1	0	0	1	0	1	0	3	7

○ India Trip (Trudeau scandal) Gr=3	0	2	1	0	0	0	0	0	0	3
○ Indigenous Issues Gr=29	0	5	14	0	1	1	2	1	5	29
○ Indigenous Vote Gr=4	0	0	1	0	0	0	2	0	1	4
● Information sharing Gr=1	0	1	0	0	0	0	0	0	0	1
○ Internal party politics Gr=1	0	0	0	0	0	0	0	0	1	1
○ internet access Gr=1	0	0	0	0	0	0	0	0	1	1
○ Interprovincial Trade Gr=1	0	0	0	0	0	0	1	0	0	1
○ Islamophobia Gr=2	0	1	0	0	0	0	0	0	1	2
○ Job/Funding Cuts Gr=17	2	0	4	0	1	0	7	0	3	17
○ Jobs/Growth/Economy Gr=14	2	4	1	1	2	1	1	0	2	14
○ Kinsella PPC scandal Gr=1	0	0	0	0	0	1	0	0	0	1
○ Labour Issues Gr=2	0	0	0	0	0	0	2	0	0	2
○ Leaders Debates Gr=17	0	1	4	0	0	0	1	0	11	17
○ Leadership/Character/Ethics/Hypocrisy (general) Gr=90	6	36	17	2	1	4	3	1	20	90
○ LGBTQ Issues Gr=8	0	2	2	0	3	0	0	0	1	8
○ libel Gr=1	0	0	0	0	0	0	0	0	1	1
○ Libraries Gr=1	0	0	0	0	1	0	0	0	0	1
○ Lied about living with parents (Scheer) Gr=1	0	0	1	0	0	0	0	0	0	1
● LPC (anti) Gr=149	16	18	33	1	24	5	19	2	31	149
● LPC (pro) Gr=105	7	8	36	1	10	9	22	2	10	105
○ LPC-NDP Coalition (pro) Gr=3	0	0	0	0	0	0	2	0	1	3
○ LPC-NDP Coalition (anti) Gr=9	0	0	1	0	0	0	8	0	0	9
○ LPC-NDP Coalition (neutral) Gr=7	0	0	1	0	0	0	6	0	0	7

○ Media access Gr=10	0	0	7	0	0	0	0	1	2	10
○ Media Criticism Gr=56	4	14	12	4	3	3	4	2	10	56
○ Media Criticism (supportive) Gr=1	0	0	0	0	0	0	0	0	1	1
○ Media manipulation Gr=1	0	0	0	0	0	0	0	0	1	1
○ Media Ownership Gr=1	0	1	0	0	0	0	0	0	0	1
○ Mental Health Gr=1	0	1	0	0	0	0	0	0	0	1
○ Military Spending Gr=2	0	0	0	0	1	0	0	0	1	2
○ Minority Government Gr=9	0	0	0	0	0	7	2	0	0	9
○ Missing/Murdered Indigenous Women Gr=2	0	0	1	1	0	0	0	0	0	2
○ Nationalism Gr=3	1	0	1	0	0	0	1	0	0	3
● NDP (anti) Gr=13	0	0	3	0	2	0	6	0	2	13
● NDP (pro) Gr=65	5	9	18	0	4	3	13	0	13	65
○ Oil & Gas Industry (anti) Gr=6	0	0	1	0	1	1	3	0	0	6
○ Oil & Gas Industry (neutral) Gr=1	0	0	1	0	0	0	0	0	0	1
○ Oil & Gas Industry (pro) Gr=10	0	1	0	0	4	0	1	0	4	10
○ Ont Teachers Strike Gr=5	0	0	2	0	0	0	0	0	3	5
● Opinion Polls Gr=19	0	0	5	0	5	0	4	0	5	19
● Opinion/Humour/Personal Gr=574	50	134	117	9	68	63	63	7	63	574
○ Opioid Crisis Gr=1	0	0	1	0	0	0	0	0	0	1
○ Pensions Gr=1	0	0	0	0	0	0	1	0	0	1
○ Pipelines (anti) Gr=19	1	0	5	0	3	2	6	0	2	19
○ Pipelines (pro) Gr=8	1	0	4	0	1	1	0	0	1	8

○ Polarization Gr=7	0	0	1	0	0	3	2	0	1	7
○ Political Spin/Propaganda Gr=12	0	0	3	0	1	1	2	0	5	12
● Political/Partisan Gr=218	20	29	63	1	14	12	44	2	33	218
● Politically Neutral Gr=25	2	2	2	0	8	3	6	0	2	25
○ Popular Vote Gr=3	0	0	0	0	0	3	0	0	0	3
○ Populism Gr=2	0	0	1	0	0	0	1	0	0	2
● PPC (anti) Gr=4	0	1	0	1	1	0	0	0	1	4
● PPC (pro) Gr=21	2	3	5	1	0	2	4	0	4	21
○ Pride Parade (Scheer) Gr=1	0	0	1	0	0	0	0	0	0	1
○ Privacy Gr=1	0	1	0	0	0	0	0	0	0	1
○ Privatization Gr=3	0	0	1	0	1	1	0	0	0	3
○ Progressive Agenda (pro) Gr=4	0	0	3	0	0	0	0	0	1	4
○ Progressive Vote Gr=1	0	0	1	0	0	0	0	0	0	1
○ Progressives Gr=3	0	0	3	0	0	0	0	0	0	3
○ Public Safety Gr=1	0	0	0	0	0	1	0	0	0	1
○ Public Transit/Infrastructure Gr=11	1	0	1	0	8	0	1	0	0	11
○ Racism Gr=38	0	23	9	2	0	1	2	0	1	38
○ Racism (dismissive) Gr=7	0	3	1	2	0	0	1	0	0	7
○ Racism (Quebec) Gr=2	0	1	0	1	0	0	0	0	0	2
○ Raise Taxes (pro) Gr=1	0	0	0	0	0	1	0	0	0	1
○ Regressive Politics Gr=3	0	0	2	0	0	0	0	0	1	3
● Regular person Gr=566	52	141	92	13	64	58	55	8	83	566
○ Residential Schools Gr=1	0	1	0	0	0	0	0	0	0	1
○ Resume scandal (Scheer) Gr=1	0	0	4	0	0	0	1	1	3	9

Gr=9										
○ Right to Die Gr=2	1	0	0	1	0	0	0	0	0	2
○ Safe Streets Gr=3	0	0	3	0	0	0	0	0	0	3
○ Scheer assaulted/heckled Gr=1	0	0	0	0	1	0	0	0	0	1
○ Science Issues Gr=1	0	0	0	0	0	1	0	0	0	1
○ Seniors Gr=3	0	0	2	0	1	0	0	0	0	3
○ Sex Workers Gr=1	0	0	0	0	0	0	1	0	0	1
○ Sexism Gr=2	0	2	0	0	0	0	0	0	0	2
○ Small Government Gr=1	0	0	0	0	0	1	0	0	0	1
○ snc-lavalin (scheer) Gr=1	0	0	0	0	0	0	0	0	1	1
○ SNC-lavalin (supportive) Gr=13	10	1	1	0	0	0	0	0	1	13
○ SNC-lavalin critical) Gr=13	7	2	1	0	0	1	1	0	1	13
○ Social Conservatism Gr=3	0	0	1	0	0	2	0	0	0	3
○ Social Justice Gr=3	0	0	1	0	0	1	1	0	0	3
○ social media influence Gr=1	0	0	0	0	0	0	0	0	1	1
○ social safety net Gr=1	0	0	0	0	0	0	0	0	1	1
○ special needs Gr=2	0	0	0	0	0	0	0	0	2	2
● Story Share Gr=121	16	28	16	1	11	12	18	0	19	121
● Story Share with commentary Gr=234	14	64	46	4	21	23	21	2	39	234
○ Strategic Voting (anti) Gr=11	0	0	3	0	0	0	5	0	3	11
○ strategic voting (neutral) Gr=3	0	0	0	0	0	0	3	0	0	3
○ strategic voting (pro) Gr=4	0	0	3	0	0	0	0	0	1	4
○ Suicide Rates Gr=1	0	0	0	0	0	1	0	0	0	1
○ Tax cuts Gr=6	2	0	1	0	0	0	3	0	0	6

○ Tax increases Gr=6	1	0	1	0	0	0	3	0	1	6
○ Terroism (dismissive) Gr=1	0	0	0	0	0	0	1	0	0	1
○ Traditional Media Gr=133	19	42	13	0	10	13	17	0	19	133
○ Treasury Board scandal Gr=1	0	1	0	0	0	0	0	0	0	1
○ Tree Planting Gr=3	0	0	0	0	1	0	0	0	2	3
○ Trudeau assaulted/heckled/threatened Gr=7	0	0	0	0	4	0	2	1	0	7
○ Trudeau Groping Scandal Gr=3	0	2	1	0	0	0	0	0	0	3
○ Trudeau marriage speculation Gr=1	0	0	0	0	1	0	0	0	0	1
○ Trudeau Teacher/Student spec Gr=2	0	0	1	0	0	0	0	0	1	2
○ Trudeau Two Planes Gr=6	0	0	4	0	0	0	0	0	2	6
○ Trump Comparison Gr=2	0	0	1	0	0	0	0	0	1	2
○ Trump Influence Gr=14	1	1	3	0	1	3	2	0	3	14
○ urban/rural split Gr=1	0	0	0	0	0	1	0	0	0	1
○ Vet affairs murder (conspiracy) Gr=3	0	0	1	0	0	0	0	0	2	3
○ Vote Splitting Gr=2	0	0	2	0	0	0	0	0	0	2
○ Voter Suppression Gr=2	0	0	1	0	0	1	0	0	0	2
○ Voting fraud scandal (Kenny) Gr=2	0	0	2	0	0	0	0	0	0	2
○ Western Angst (dismissive) Gr=9	0	0	4	0	0	4	0	0	1	9
○ Western Angst (expression of) Gr=13	0	1	1	0	1	9	0	0	1	13
○ Wexit (anti) Gr=18	0	0	2	0	0	15	0	0	1	18
○ Wexit (pro) Gr=2	0	0	0	0	0	1	1	0	0	2

○ White Supremacy/Alt-right Gr=8	0	1	2	2	0	1	2	0	0	8
○ women of colour Gr=1	0	0	1	0	0	0	0	0	0	1
○ Yellow Vests (anti CPC) Gr=8	0	0	1	0	0	0	7	0	0	8
○ Yellow Vests (dismissive) Gr=1	0	0	0	0	0	0	1	0	0	1
○ Youth vote Gr=14	0	0	10	0	0	0	0	1	3	14
Canadian Values/Pride Gr=11; GS=5	1	1	2	0	1	3	1	0	2	11
Children/Education Gr=20; GS=6	0	0	9	0	2	1	1	0	7	20
Climate Change Gr=145; GS=12	10	8	28	0	48	16	18	1	16	145
Crime/Drugs/Guns Gr=33; GS=13	2	1	14	0	2	2	7	0	5	33
Culture War Gr=53; GS=16	1	3	16	3	0	7	19	0	4	53
Digital/Social Media Gr=38; GS=8	1	1	14	0	3	0	1	2	16	38
Disinformation Gr=25; GS=2	1	0	11	0	3	0	0	2	8	25
Doc Informative Gr=167; GS=4	20	36	24	1	16	16	23	0	31	167
Doc Non Informative Gr=842; GS=3	68	199	173	13	91	88	91	10	109	842
Economy/Growth/Jobs Gr=112; GS=19	8	7	26	1	19	5	26	1	19	112
Election Race Gr=301; GS=34	20	14	65	0	18	49	75	3	57	301
Electoral Reform Gr=10; GS=1	0	0	1	0	1	3	1	0	4	10
Elizabeth May Scandals Gr=2; GS=2	1	0	0	0	0	0	0	0	1	2
Excluded Gr=50; GS=3	6	9	12	0	5	7	5	0	6	50
Gender Issues Gr=24; GS=5	0	5	6	1	1	4	5	0	2	24
Health/Pharmacare Gr=20; GS=4	1	4	6	0	1	2	2	0	4	20
Indigenous Issues Gr=52; GS=5	0	6	30	1	1	1	4	1	8	52
Leadership/Character (general) Gr=98; GS=2	6	39	17	2	2	6	3	1	22	98



<b>LGBTQ Issues</b> Gr=49; GS=6	0	14	20	2	3	0	1	0	9	49
<b>Media</b> Gr=76; GS=8	4	15	20	4	4	3	5	3	18	76
<b>Military Spending</b> Gr=2; GS=1	0	0	0	0	1	0	0	0	1	2
<b>Miscellaneous</b> Gr=9; GS=6	1	1	0	1	3	3	0	0	0	9
<b>National Unity</b> Gr=76; GS=9	2	1	17	0	5	37	7	0	7	76
<b>Political Spin</b> Gr=27; GS=2	0	2	5	0	3	3	4	2	8	27
<b>Privatization</b> Gr=3; GS=1	0	0	1	0	1	1	0	0	0	3
<b>Race Relations</b> Gr=99; GS=17	4	39	22	6	4	2	18	0	4	99
<b>Scheer Scandals</b> Gr=51; GS=7	0	12	15	2	0	3	2	2	15	51
<b>Seniors</b> Gr=3; GS=1	0	0	2	0	1	0	0	0	0	3
<b>Taxes</b> Gr=35; GS=9	6	2	3	0	2	4	11	0	7	35
<b>Trade/Foreign Affairs</b> Gr=4; GS=2	0	1	0	0	1	0	2	0	0	4
<b>Trudeau Scandals</b> Gr=224; GS=11	17	170	9	9	3	3	4	0	9	224
<b>Trump Influence</b> Gr=14; GS=1	1	1	3	0	1	3	2	0	3	14
<b>Tweeter Categories</b> Gr=1357; GS=17	97	249	288	14	108	152	207	16	226	1357
<b>Totals</b>	612	1756	1776	122	776	844	1120	88	1274	8368