INVESTIGATING INDIVIDUALS' MOTIVATIONS TO COMMENT ON SOCIAL MEDIA NEWS

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INVESTIGATING INDIVIDUALS' MOTIVATIONS TO COMMENT ON SOCIAL MEDIA $$\operatorname{\textsc{NEWS}}$$

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ABSTRACT

The present thesis takes an exploratory approach to examine the ways individuals use social media to access news, their perceptions about the quality or homogeneity of their news exposures, and how their exposure to online news and news comments influences their beliefs on a topic. Moreover, this thesis sought to expand on presently available research in this area by examining various motivations to participate in online discussions of news. 520 individuals participated in an online survey. The findings suggest that cognitive factors such as educating others and simplifying complex information to be highly motivating, as well as the presence of controversy in the story or comments. The findings also suggest that the strength of one's position on a topic can be impacted by their exposure to news, and online platforms such as Facebook can create homogeneous news environments that perpetuate this pattern and increase users motivations to participate.

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CHAPTER 1: Introduction

The way news is distributed and consumed has changed greatly within recent years given the advancement in mass communication technology (Salgado & Bobba, 2019). More and more people are shifting from traditional news sources to consuming news online via social networking sites such as Twitter or Facebook (Bowe & Wohn, 2015). These changes have sparked scholarly attention due to the influence online content has on human thought, action, and affect (Bandura, 2001). Although reading online news seems to offer up a larger variety of content and perspectives, in reality the set up of mass communication systems, such as Facebook, can work to create more homogeneous opinion climates that in turn have significant effects on how individuals perceive reality (Mutz & Young, 2011; Neubaum & Krämer, 2017). From this, there are concerns about how audience participation, such as commenting, can also influence consumers understanding of the news, and work to further skew individual's perceptions of reality (Lee & Tandoc, 2017). Since commenting has become one of the most popular forms of user interaction online it is valuable to understand what is motivating people to comment online, as these publicly stated opinions seems to greatly affect others perceptions of public opinion, societal issues, and their construction of reality more generally (Friemel & Dötsch, 2015; Lee, Kim, & Cho, 2017; Lee & Tandoc, 2017).

As of yet, there is no consensus about what drives an individual to comment online, although there have been some suggestions (Lee & Tandoc, 2017). Some scholars believe that certain elements of the news story and user comments, such as the controversy, aggression, or negativity may be driving individuals to participate (Løvlie, Ihlebæk, & Larsson, 2018; Ziegele, Breiner, & Quiring, 2014). Although there are others outside the three listed above, these discussion factors are thought to spark reader's attention and evoke a reaction, thus motivating

individuals to contribute a comment (Løvlie, Ihlebæk, & Larsson, 2018; Ziegele, Weber, Quiring, & Breiner, 2018). Research has also proposed that there are various motivational dimensions that could contribute to online participation, including cognitive, entertainment, social-integrative, and personal identity dimensions (Springer, Engelmann, & Pfaffinger, 2015). However, these are all thought to contribute differently to individuals' motivations to comment (Springer, Engelmann, & Pfaffinger, 2015). Alternatively, others claim that individuals comment for personal reasons, such as changing opinions, venting, or simply to engage in social interaction or react to other users' comments (Fletcher & Park, 2017; Springer, Engelmann, & Pfaffinger, 2015). Given the variety of hypotheses and the lack of consensus overall, this study aims to look at individuals' motivations for online commenting with the various hypotheses in mind, in order to determine which ones, if any, are driving people to participate in online discussions.

Moreover, many online news and social networking sites have taken the individual's gatekeeping responsibility out, and moved to incorporate recommendation systems that filter online news based on personal ideologies and content preferences (Mutz & Young, 2011). This makes how individuals select their news important as the strength of their belief on a topic could be influenced by the amount they read about it, which may in turn influence their willingness to comment on related news posts. Unfortunately, there is a lack of research addressing this element of online news as an influential factor for online commenting. However, given the changes in social media and recommendation systems, it may be an important factor to consider. Thus, this study will investigate the previous hypotheses regarding motivations for commenting, but will do so in the light of how the homogeneity of news and the perceived facticity or truthfulness of the news content may also be important factors influencing an individual's motivation to comment.

CHAPTER 2: Literature Review

Social Cognitive Theory

Before thinking about the transition from interpersonal communication to mass communication, it is important to consider how development and communication are embedded within a social system (Bandura, 2001). Social cognitive theory discusses how personal agency and self-development are rooted within concepts of observational learning, and that human behaviour is firmly established by social-sanctions (Bandura, 2001). This theory posits that behaviours are socially diffused and governed by psychosocial factors, as well as three constituent processes (Bandura, 2001). These include knowledge acquisition regarding new or innovative behaviours, the adoption of new behaviours in practice, and the social networks that are in place to spread and support this behaviour acquisition (Bandura, 2001). The psychosocial aspect of this theory is important for learning about appropriate and inappropriate behaviours based on societal standards, and the culture in which learning occurs (Bandura, 2001). However, it is also important to note how personal and societal approval or disapproval greatly affects what behaviours are internalized and used in everyday life (Bandura, 2001). Through self-reflection, individuals are able to think about behaviour they see in their day-to-day lives, generate new ideas based on those observations, act on them, and then once the consequences are noticed, they can judge the adequacy of their thoughts or behaviours, and change them accordingly (Bandura, 2001). Because of the bidirectional influence of learning and gaining new behaviours within one's social system, it is important to develop effective cognitive functioning that can reliably indicate if something an individual is seeing or doing is effective (Bandura, 2001). Individual differences in cognitive processes and exposure to societal models can lead to differences in how people perceive behaviour as positive or negative (Bandura, 2001). Thus, it is apparent why this

theory is important when discussing communication, whether it be interpersonal communication, or mass media and social communication systems.

Social Cognitive Theory of Mass Communication

Albert Bandura extended social cognitive theory to reflect the more recent changes in how individuals communicate through mass media. Knowing that social cognitive theory discusses the diffusion of new behaviour through social systems, Bandura believed it was necessary to understand how social networks that exist in mass media are able to spread information and influence the public, as well as one's own thoughts, affect, and actions (Bandura, 2001). Electronic communication provides instant access to the world of information and gives adopters of these mass communication systems greater access to new innovations and behaviours that may not have been present in their social network previously (Robertson, 1971). Now, rather than only having social models within one's community of peers, family, and friends, people of all ages are able to see televised or other electronic models with ease, further influencing social change and the adoption of various behaviours, beliefs, and attitudes (Bandura, 1997; Sabido, 1981; Singhal & Rogers, 1999; Winett, Leckliter, Chinn, Stahl, & Love, 1985). Given this change, people do not necessarily have to adopt the beliefs or behaviours of those within their interpersonal circle, but instead can turn to mass media (Bandura, 2001). The lack of gatekeeping within mass media affects the types of modeling that individuals can see, which in turn directly alters the judgments, values, and behaviours of the audience (Bandura, 2001). This occurs because media portrayals of certain behaviour can alter the perceived social sanctions by affecting the individual's view of the consequences that would normally be associated with a potential maladaptive behaviour (Bandura, 2001). This is believed to foster a globally distributed consciousness (Bandura, 2001). Thus, mass communication systems have

taken social cognitive theory and blown it up to encompass the array of bizarre views and behaviours that could work to confirm other individuals' misbeliefs, which would not necessarily have occurred in a smaller social communication system (Bandura, 2001). Given the changes in communication systems and social networks, it has become increasingly important to understand how social media, and mass media more generally, are able to foster misbeliefs and maladaptive behaviours in individuals worldwide. Even further, it is important to understand why individuals propagate alternative views from mainstream ideology online, how these ideas diffuse socially and lead online debates, and how the various elements of mass communication can influence one's motivation to participate in the discussion.

Mass Media and Social Media

There has been a massive shift in how individuals communicate with each other over the recent years. This shift includes moving from a world where individuals know all their neighbours and interact with various people everyday, to a world where interactions take place from a distance, and individuals spend more time interacting online than they do with human beings in their day-to-day interactions (Mutz & Young, 2011).

With the developments in mass media and social media, there has been a paradigm shift in the ways people work, communicate, socialize, obtain knowledge, and learn (Ismail & Latif, 2013). Social media has also allowed for an entirely new platform to voice one's opinions, promote activism, and create awareness of certain hot topic issues (Jones & Wayland, 2013). Moreover, social networking sites provide members with control over the content, timing, and ease of their communication within a massive geographic area (Ismail & Latif, 2013). This has allowed for the possibility of individuals to engage with more diverse groups and opinions with minimal risk or effort (Ismail & Latif, 2013). Due to all these innovations, social media sites

have been able to transmit the various cultural aspects of society and transform society on a micro and macro level (Ismail & Latif, 2013). On a macro level, mass mediated social networking has allowed for easy organization of mass gatherings, strikes, and revolutions around the world by connecting like-minded individuals and giving them a means to spread their message (Ismail & Latif, 2013). Where on a micro level, social media has allowed for individuals to learn particular topics with ease, keep track of their friends and family, comment and debate topics of choice online, and view the topics of interest and activities of others with a single click (Ismail & Latif, 2013).

Today, social media networks seamlessly blend interpersonal and mass communication by providing proprietor content and juxtaposing it with visuals and user-generated content to deepen the reach and impact of the message (Neubaum & Krämer, 2017). Within these mass media networks there are various interactive communication technologies (ICT) that further extend the loop of communicative interaction, and provide means for analyzing or simply observing various communication phenomena (Walther & Valkenburg, 2017). To clarify, interactive communication technologies encompass a large number of social networking sites such as Facebook and Twitter, as well as online news forums that contain commenting functions and recommendation systems (Walther & Valkenburg, 2017). Although these ICTs include Netflix, dating sites, email, multimedia streaming, blogs, and social networking sites, for the purposes of this research, social networking communication systems will be the primary focus. The interest now is how do these ICT's affect the individual using them? Prensky's (2009) argued that exposure to ICT, especially starting from an early age that is commonly seen today, would likely change the thinking processes of those individuals and result in different learning compared to previous generations (Bowe & Wohn, 2015; Prensky, 2009). This falls inline very

well with Bandura's social cognitive theory of mass communication discussed previously.

Unlike previous generations, individuals now have an infinite number of models for learning that can be accessed with ease (Bandura, 2001; Bowe & Wohn, 2015). Thus, given the impact these models and ICTs can have, it becomes clearer why this topic is emerging among scholars and requires more attention.

Opinion Leaders

In the research on mass communication, opinion leaders come up as an influential and important means for how media messages are distributed and perceived (Mutz & Young, 2011; Turcotte, York, Irving, Scholl, & Pingree, 2015). Thus, before moving into theories on how information flows via mass media, the concept of opinion leaders needs to be addressed. Opinion leaders are thought of as engaged and competent individuals who are viewed by their "opinion followers" as trustworthy and honest (Turcotte, York, Irving, Scholl, & Pingree, 2015). Social networking sites such as Facebook are thought to be fruitful grounds for people to exercise opinion leadership (Mutz & Young, 2011). Unlike journalists, opinion leaders are thought to share more information online with their followers despite any informational utility or rigorous fact checking (Fletcher & Park, 2017). The issue with this is that opinion followers trust these leaders, and the research shows that information shared by opinion leaders increases followers trust in the news outlet and media source (Turcotte, York, Irving, Scholl, & Pingree, 2015). Thus, opinion leaders are capable of affecting how media messages are perceived by readers and spark a trust in the content shared, despite any evidence of the opinion leaders expertise on the topic (Turcotte, York, Irving, Scholl, & Pingree, 2015). Given the technical ease of sharing information online, anyone can become an opinion leader and use social networking sites to spread their viewpoint and ideas to the masses (Neubaum & Krämer, 2017). This can have

problematic implications, as social media messages have been seen to alter readers' opinions and influence their thoughts, behaviours, and affect (Bandura, 2001). Theories of mass communication, such as the two-step flow model, have used the concept of opinion leaders to help define how messages are sent and perceived online, in an attempt to grasp the impact of opinion leaders and the implications on how media messages are diffused (Katz & Lazarsfeld, 1955; Neubaum & Krämer, 2017).

Two-Step Flow Model of Mass Communication

Katz and Lazarsfeld (1955) developed the two-step flow model to address how people form opinions when exposed to the influence of various opinion leaders (Katz & Lazarsfeld, 1955; Neubaum & Krämer, 2017). Although this model was created in the 1950's, many scholars believed that it is still relevant today given the acknowledgement that interpersonal communication integrates into mass communication, and has important persuasive effects on the public (Neubaum & Krämer, 2017). Generally, the model works through a simple two-step diffusion process (Bandura, 2001; Katz & Lazarsfeld, 1955). First, an opinion leader or influential person chooses an idea from the media, and then these messages are passed along to their opinion followers (Bandura, 2001; Katz & Lazarsfeld, 1955). In this model, opinion leaders are viewed as mediators of information, where they interpret and disseminate the information to the masses (Katz & Lazarsfeld, 1955; Lee & Jang, 2010; Lee & Tandoc, 2017). However, much like mentioned before, the information that is passed along to the public is chosen by opinion leaders in the light of their own identities, loyalties, and biases, and is sent out through their interpersonal interactions with friends, family and other members of their network (Katz & Lazarsfeld, 1955; Mutz & Young, 2011). This has important implications for how the general population views events and the news more generally, however that will be discussed later

within this research. What is most important to note about this model right now is that this process works to reinforce the public to the opinions of these opinion leaders, which in turn influences the masses (Katz & Lazarsfeld, 1955; Neubaum & Krämer, 2017). With the changes in mass communication, it will be important to know how the messages shared by opinion leaders are internalized by their followers, as well as how this process can affect individuals motivation to participate online.

Mass Media's Contribution to Stereotyping

Based on what is known about the flow of mass communication, looking into how opinion leaders and mass media in general affect the formation or validation of stereotypes is worthy of attention. Following the logic posed by the two-step flow model, it can be assumed that biased, racist, or stereotypic opinion leaders could have detrimental effects on the spread of supporting information to the public (Mutz & Young, 2011). People exposed to messages from trusted opinion leaders that support their stereotypical or biased beliefs only works to reinforce those beliefs, or make them more extreme (Mutz & Young, 2011). Moreover, following the ideas of social learning and the social cognitive theory of mass communication, studies have noted that individuals looks to each other, and the opinion leaders of their group, to decide what is socially acceptable and then mimic those socially salient groups' norms (Blanchard, Crandall, Brigham, & Vaughn, 1994; Hsueh, Yogeeswaran, & Malinen, 2015; Lapinski & Rimal, 2005; Zitek & Hebl, 2007). Thus, individuals stereotypes or prejudices toward others may actually be reflective of the group norms set by the opinion leaders they trust, which have become internalized by that individual (Hsueh, Yogeeswaran, & Malinen, 2015). In the era of mass media where individuals can choose social networks and news that are congruent with their ideologies, they can become distrusting of non-congruent views and selectively expose themselves to media that is preferred

or representative of their own biases (Arceneaux, Johnson, & Murphy, 2012; Turcotte, York, Irving, Scholl, & Pingree, 2015). It can then be seen how this cycle feeds into the formation of radical beliefs, stereotypes, and prejudices. Moreover, it is thought that people are more inclined to adjust their beliefs, even to more radical or stereotypical ones, if the opinion comes from people they trust (Neubaum & Krämer, 2017; Salmon & Kline, 1985). This makes the flow of information and the choice of opinion leaders extremely important for the formation of healthy, factual, and adaptive beliefs, attitudes, and behaviours (Neubaum & Krämer, 2017; Salmon & Kline, 1985). Thus, the responsibility falls on the consumer of information to construct online environments that are filled with a variety of opinions and prosocial messages, rather than polarized opinion climates constructed through biased or stereotypical information (Hsueh, Yogeeswaran, & Malinen, 2015).

Social Media and Access to News

The ways people are exposed to news is unlike ever before. Social media now offers extensive exposure to new possibilities for accessing and consuming news (Flanagin, 2017). One of many possible news outlets online is Facebook, which has been noted as one of the fastest growing sources for individuals to access news (Flanagin, 2017). Thus far, studies have noted that 30 percent of the United States adult population, and 47 percent of Facebook users overall, report consuming news online and through the Facebook site (Pew Research, 2014; Turcotte, York, Irving, Scholl, & Pingree, 2015). Crazily, this number is only increasing as more recent studies have now found that 63 percent of Facebook users report using the platform as a news source (Barthel, Shearer, Gottfried, & Mitchell, 2015; Wong & Burkell, 2017). The switch in how individuals gather news should be no surprise given the innovations with technology, and the changing values for mass media and mass communication (Flanagin, 2017). The social

mechanisms driving mass media communication are also what drive news selection, engagement, and its impacts on public opinion (Turcotte, York, Irving, Scholl, & Pingree, 2015). Sites like Facebook have unique news delivery features, where both friends and professionals can act as opinion leaders and gatekeepers to significant and relevant news content, which further influences how news stories are presented on each individual's Facebook page (Turcotte, York, Irving, Scholl, & Pingree, 2015). The primary issue with this system is that unlike before, where news content passed journalistic quality assessments, anyone online who deems themselves as an opinion leader can generate and distribute news relevant to their personal motives (Ismail & Latif, 2013; Turcotte, York, Irving, Scholl, & Pingree, 2015). This leaves social media open to a large volume of information generated with little or no oversight (Ismail & Latif, 2013; Turcotte, York, Irving, Scholl, & Pingree, 2015).

Given this, although trust in the news may be declining because of the lack of gatekeeping, there is still an increased amount of news available and accessible online to anyone who wants it (Fletcher & Park, 2017). This has led to a passive consumption of news, where stories and content shared about friends' day-to-day lives is intertwined with news content that varies in its reliability (Fletcher & Park, 2017; Hsueh, Yogeeswaran, & Malinen, 2015). Again, this leaves it up to the general population to decide what is true and factual (Fletcher & Park, 2017; Hsueh, Yogeeswaran, & Malinen, 2015). Even with one's best effort to receive reliable and credible news, online news media travels through so many complex networks before and within Facebook, where people can edit and comment on the credibility and content shown, that often the story bears little resemblance to the original news sources (Flanagin, 2017). Thus, there is no question that social media is able to facilitate news flow by the production and sharing of content. However, it now becomes more important to address how people select their news, what

values they are looking for within it, as well as what is motivating the individuals to comment, change, or debate the news information (Nielsen & Schrøder, 2014).

News Value Theory

News value theory has been thought of as a general theory for how individuals process and perceive news messages (Eilders, 2006; Galtung & Ruge, 1965). Back when it was just journalists selecting the news stories, any news worth selecting would be relevant and contain at least one 'news factor' (Ziegele, Weber, Quiring, & Breiner, 2018). These exact news factors vary greatly depending on the author, but generally they are factors related to the events proximity (geographically, economically, or culturally), controversy, unexpectedness, damage, personalization, and reach of the news story (Galtung & Ruge, 1965). The idea is that the value of news is determined by how many news factors are present in the story, which in turn influences the stories relevance and chances at being selected (Ziegele, Breiner, & Quiring, 2014).

Extending this to the present day, news value theory provides a promising starting point for analyzing online news (Ziegele, Breiner, & Quiring, 2014; Ziegele, Weber, Quiring, & Breiner, 2018). Not only are there news factors that influence if someone selects a news article online, but there are discussion factors within the online comments that may also work to influence individuals' inclinations to participate (Ziegele, Breiner, & Quiring, 2014). These discussion factors will be discussed further when investigating the drives behind online participation. Overall, news factors theory has been criticized for not fully considering individual differences in news selection, and given the changes in the way people access news it may be even less relevant (Ziegele, Weber, Quiring, & Breiner, 2018). However, using this theory and expanding it to potential discussion factors as well as news factors, could be promising for

understanding not only how people select news, but also why they choose to participate in online discussions about the news.

News Selection

It has been described so far how social media allows for news to be shared online and the importance of one's social network in receiving stories and updates about current events.

Additionally, it has been seen through news value theory, that people are thought to select news based on it having a high news value (Ziegele, Breiner, & Quiring, 2014). However, because this approach is criticized for not speaking to individual differences in news selection, given the shifting of times, where each individual is thought to select news based on their own ideological beliefs, news value theory alone may not hold up as a credible explanation for news selecting behaviours (Arceneaux, Johnson, & Murphy, 2012; Turcotte, York, Irving, Scholl, & Pingree, 2015; Ziegele, Weber, Quiring, & Breiner, 2018). Thus it is important to examine other potential factors that influence the news selection process.

Passive and Active Selective Exposure. There are both passive and active selective news exposure processes that are thought to influence the news an individual is likely to encounter (Mutz & Young, 2011). Active selective exposure refers to when individuals choose among alternative news sources and information on the basis of psychological preference for information that supports their beliefs (Mutz & Young, 2011). Passive selective exposure is where social networks create homogeneity, and news is produced in a way that reaches to a larger group of like-minded individuals (Mutz & Young, 2011). In today's media environment these two become meshed together, and people are now selecting social media outlets and following certain sites that are congruent with their ideologies (Arceneaux, Johnson, & Murphy, 2012; Turcotte, York, Irving, Scholl, & Pingree, 2015). Due to the large amount of choice over

content, individuals are more distrusting of non-congruent outlets and the people that share non-congruent news (Arceneaux, Johnson, & Murphy, 2012; Turcotte, York, Irving, Scholl, & Pingree, 2015).

Recommendation Systems. A big contributor to why individuals receive like-minded news is the set-up of online recommendation systems (Mutz & Young, 2011; Walther & Valkenburg, 2017). These systems are incorporated in almost all social networking sites to monitor the content an individual is more likely to select, read, and share, and increase the likelihood of them being exposed to similar content in the future (Mutz & Young, 2011; Walther & Valkenburg, 2017). Thus, these recommendation systems greatly affect the news and content present on someone's social networking page.

Recommendation systems not only monitor what individuals are doing, but also what their friends and family are reading and interacting with online (Wong & Burkell, 2017). Thus, people are more likely to read a story that is spreading through their social network, or is being liked by common social networking friends or followers, and vice versa (Walther & Valkenburg, 2017; Wong & Burkell, 2017). In a world where anyone can publish anything online and share whatever news they find important, recommendation systems were created to make news selection easier (Mutz & Young, 2011). However, rather than helping, recommendation systems could actually be creating a news climate online where individuals are only receiving news consistent with their pre-existing ideologies (Mutz & Young, 2011). This leaves individuals not being challenged by alternative perspectives because they are either simply unaware of them, or do not have to encounter them in their online news explorations because of the design of these social networking systems (Mutz & Young, 2011). Thus, recommendation systems could be

another factor that is affecting the learning and behaviours of the masses, which in turn could be affecting their online participation behaviour.

Trust as a Factor for News Selection. Another factor that seems to be important for interacting online and selecting news is trust. Individuals are more likely to think news is credible and select it if it comes from a friend or family member they trust (Turcotte, York, Irving, Scholl, & Pingree, 2015). This leads back into the idea of opinion leaders, as news is deemed as more credible and worthy of consideration if it came from someone the individual deems as knowledgeable and trustworthy (Turcotte, York, Irving, Scholl, & Pingree, 2015). Given what is known about recommendation systems, these are the stories individuals are most likely to encounter on their social networking sites anyways, making them even more inclined to select them (Turcotte, York, Irving, Scholl, & Pingree, 2015). Therefore, trust or lack thereof in either the news source or the sharer of the news could be another influential motivational factor for online participation.

Overall, given the complexities of online news recommendation system and their influence on how individuals are exposed to news, it could be interesting to investigate how these systems could lead to radical beliefs, polarized online communities, and outright deniers of scientific facts. Even more broadly, it could be interesting to see how news selection and the types of news one is exposed to, could influence how strongly they feel about a topic, and if recommendation systems feed into the strength of one's position. From knowing this, more could be understood about why people contribute online by investigating if the content they are exposed to is already polarized, and if that is why their beliefs are so strongly grounded, or if it is something else motivating them.

Online News and Perceptions of Reality

Before moving deeper into how social media and online news can affect one's perception of reality, it is important to identify some theories that have attempted to explain the bizarre effects social media has on the development of social realities.

The Influence of Presumed Influence (IPI) Model

This model assumes that in the absence of relevant information, people assume that media messages significantly influence others (Gunther & Storey, 2003). Following the assumption that there is some perceived effect of the media message on others, individuals then react to that perception (Gunther & Storey, 2003). This means that individuals are willing to change their own behaviours and attitudes to reflect how they perceive others would be reacting to the media (Lee & Tandoc, 2017). The issue is that the changes these individuals are making reflect an assumption about the effect of the message on others (Gunther & Storey, 2003). Thus, if the perceived effect is gaged incorrectly, the individuals may be altering their attitudes and behaviours in a way that does not actually reflect the effect the media would have on the public (Cohen, Tsafi, & Sheafer, 2008; Gunther, Bolt, Borzekowski, Liebhart, & Dillard, 2006). Hence why the IPI model rests on the assumption that people are normally unaware of how others would likely respond to media messages (Lee & Jang, 2010).

Although this model is not overly popular in the literature, it could be useful to know if people are altering their beliefs about social realities based on the presumed effects it may have on others. Due to the complexities of online news and how people receive information through social media, the IPI model could offer interesting insight into how people alter their own perceptions of reality based on the potential that others are doing the same.

Cultivation Theory

The cultivation theory proposes that mass media is a powerful agent for learning (Gross & Morgan, 1983). This theory was created by George Gerbner and Larry Gross (1976) to examine the effects of media, specifically television viewing, on how viewers construct their ideas of the world (Gerbner & Gross, 1976; Lai, Chung, & Po, 2015). The importance of this theory today is less known given the changes in media viewing, however the core components seem to extend well into today's media.

The cultivation theory has two major implications that could be useful for understanding the effects of today's media on reality perceptions (Lee, 1989). Firstly, there is a stereotypical nature to televised content, and arguably now mass media content, and secondly these stereotypical perceptions of reality seen in the media begin to be accepted as a true reality by consumers (Lee, 1989). Thus, it was originally argued that television content could become the primary sources for individual's construction and validation of their social reality (Gerbner & Gross, 1976; Lee, 1989). Extending this to today, the stereotypic nature of online news and social media content could be similarly affecting individual's perceptions of reality. An interesting implication of this is that the construction of a false or stereotypic social reality could be another driving force behind the cultivation of misbeliefs and radical ideologies.

Consequently, this could be influencing individual's motivation to participate online.

Mass Media's Contribution to Skewed Perceptions of Reality

The internet has been seen as a powerful learning tool in today's world, and is thought to be indirectly affecting individuals' perceptions and understanding of the world they live in (Gross & Morgan, 1983; Lee, 1989). This makes learning today fundamentally different than in the past, resulting in different social perceptions and behavioural patterns than would be

expected if learning were just through direct experience (Adoni & Mane 1984; Berger & Luckmann 1987; Gerbner, Gross, Signorielli, Morgan, & Jackson-Beeck 1979; McLeod & Chaffee 1972). As people are able to access more information online, and are now using social media to get and generate news, the content being factual or fictional is often overlooked, resulting in fictional stories or news being accepted as facts (Gretter, Yadav, & Gleason, 2017). This poses many issues for individual's construction of reality.

The changes in mass media communication have left individuals with a greater dependence on mass media to shape their learning, and their ideas about the world (McLeod & Chaffee, 1972). Given the way recommendation systems are set up, individuals are already more likely to see information about topics that they find important or align with their ideologies, thus potentially further skewing their misperceptions about reality (Bowe & Wohn, 2015). Therefore, it is important to keep in mind the importance of mass media in learning because the way individuals learn about facts, or what they accept as facts, can have a great affect on how they perceive reality (Bowe & Wohn, 2015).

From this, there are concerns about the homogeneity of information and opinions accessed online (Neubaum & Krämer, 2017). Selective exposure to certain topics and the avoidance of others, could lead to ideological homogeneity within one's online community that work to validate the reality being constructed (Neubaum & Krämer, 2017; Pariser, 2011). The concerns about having high levels of homogeneity in one's information seems justified, as research has pointed out that people tend to internalize and project the ideas or opinions that they read online onto others (Neubaum & Krämer, 2016; Neubaum & Krämer, 2017). Thus, not only is that individual being affected, but also the rest of their online network is being given the same, potentially invalid, information and repeating the same cycle (Neubaum & Krämer, 2017).

Therefore, it is important to fully understand not only how individuals learn through mass media and how it shapes their perceptions of reality, but also the motivation for sharing and propelling misinformation forward into the rest of their online community. It could be as simple as confirmation bias, where individuals choose news on the basis of it matching with their ideologies, and is accepted as a fact by other like-minded individuals (Nickerson, 1998; Reuter, Hartwig, Kirchner, & Schlegel, 2019). Moreover, confirmation bias could be what is strengthening their belief in a topic and thus motivating them to share it with others who may not fall in line with their ideologies. Alternatively, there could be something else motivating these individuals to comment and participate online. However, it is likely that regardless of the exact motive for participation, at some level, these factors about mass mediated learning and the development of perceived realities play a role.

Echo Chambers. A common positive feedback mechanism online that works to reinforce existing opinions of like-minded individuals is echo chambers (Walter, Brüggemann, & Engesser, 2018). The idea behind echo chambers is that when individuals seek like-minded information online, their news and social networking exposure becomes homogeneous (Neubaum & Krämer, 2017; Reuter, Hartwig, Kirchner, & Schlegel, 2019). Due to this, individuals are consistently met with viewpoints that are congruent with theirs, thus reducing the desire to withhold opinions or seek contradicting information (Neubaum & Krämer, 2017; Reuter, Hartwig, Kirchner, & Schlegel, 2019). Echo chambers thus have a substantial impact on skewed perceptions of reality, as individuals often mistake the confirmation of their opinion on a topic as a representation of the general public's opinion (Eilders & Porten-Cheé, 2016; Walter, Brüggemann, & Engesser, 2018). For example, echo chambers are problematic for hot topic issues such as climate change, as they can result in a perception that the existence of climate

change is up for debate, when in fact outside of the echo chamber, there is overwhelming scientific evidence that it is happening and therefore is not up for debate (Farrell, 2015; Walter, Brüggemann, & Engesser, 2018). Thus, echo chambers can work to create polarized opinion climates where the mere existence of congruent viewpoints is evidence enough for an individual to accept their viewpoint as a fact, and ignore contradicting information (Jamieson & Cappella, 2008; Walter, Brüggemann, & Engesser, 2018). Therefore, echo chambers influence individuals' perceptions of reality, and should be considered as an important contributing factor for the effects of online communication and the polarization of user comments (Walter, Brüggemann, & Engesser, 2018).

Audience Participation Online

There are various forms of audience feedback available online, however all have been noted to affect both the readers' opinions and their perceptions of reality (Lee & Tandoc, 2017). The types of audience feedback vary in their levels of engagement, where one can like, share, and comment on the news, or other online posts, as a form of user interaction (Salgado & Bobba, 2019). The forms of audience feedback available online today are thought to be faster, more automatic, more inclusive and comprehensive, but most importantly more public than traditional news would have experienced (Lee & Tandoc, 2017). However, individual's motivation to like, share, and comment online are likely driven by different factors (Salgado & Bobba, 2019). Regardless of the motivation, any form of audience feedback is thought to bias readers' perceptions of the news story (Lee & Tandoc, 2017).

Similarly to how people are thought to select news online, scholars have proposed that trust in the news media is also an important influence on audience participation (Fletcher & Park, 2017). However, the direction of the relationship is up for debate as studies have found

contradicting results to whether high or low trust contributes to greater online audience participation (Fletcher & Park, 2017; Zamith & Lewis 2014). Outside of trust, there could be other factors that are hypothesized to influence audience participation, but there are similarly mixed results on the exact factors that motivate individuals to participate.

Sharing as a Form of Audience Participation

As mentioned previously, there are many forms of online participation, but sharing is considered to be one of the most important forms of audience interaction (Salgado & Bobba, 2019). Sharing content online helps to further distribute the information, allows for a wider reach of the story, and additionally implies publicly stating one's opinion or position on a topic, thus encouraging others to read it as well (Salgado & Bobba, 2019). Many authors have speculated why individuals share information online, and generally it is thought that sharing personal information, compared to sharing news, may be motivated by different factors (Wong & Burkell, 2017). Sharing either type of information reveals various aspects of an individual and is generally perceived by the sharer as something that enhances the lives of others, and works to define them within a particular community, or opinion climate (Wong & Burkell, 2017).

Generally speaking, research into online news and information sharing has alluded that the decision to share is influenced by the individual's motivation to enhance their social status by showing off what they know (Berger & Milkman, 2012; Fletcher & Park, 2017; Kang, Lee, You, & Lee, 2013). Moreover, sharing seems to be influenced by the type of information being read, the audience in which the information would be shared, and a cost versus benefit analysis of sharing the information (Wong & Burkell, 2017). Regardless, people who share online are thought of as information seekers who want to improve their social status through this sharing behaviour (Fletcher & Park, 2017; Lee & Ma, 2012). Still, it remains relatively unclear what

motivates people to share online, but even more so what motivates them to initiate and continue online discussions (Lee & Tandoc, 2017). Unfortunately, because motivations to participate in different forms of audience feedback vary, it cannot be assumed that the motivations for sharing content are related or mirrored in individual's motivations to comment online (Salgado & Bobba, 2019). Thus, it is important to investigate online discussion forums and address what motivational factors are at play for online commenting separately.

Commenting as a Form of Audience Participation

Online discussions consist of a sequence of user comments and user-user interactions regarding a particular story (Ruiz et al., 2011; Ziegele, Breiner, & Quiring, 2014). User comments are thought to highlight various elements of the news and thereby work as a guide for future readers cognitive processing of the information (Lee, Kim, & Cho, 2017; Lee & Tandoc, 2017). Whereas sharing and liking entails voicing one's opinion to a smaller network of known friends and followers, commenting online influences a larger network of unknown individuals, where anyone has the ability to reply and begin an online debate or conversation (Boczkowski & Mitchelstein, 2012). Comment sections are particularly interesting because they are the most popular form of user-generated content (Friemel & Dötsch, 2015; Kaiser, 2017). This form of interaction illustrates how intertwined different online communities are, and given the depth of connections, more individuals can be influenced by the comment section on social media sites (Gerhards & Schäfer, 2010; Kaiser, 2017). Not only is there more opportunity to express opinions, but news articles juxtapose the comments right under the story, allowing for the news content, as well as the comment content, to spark attention and subsequent user-user interactions (Tenenboim & Cohen, 2015; Ziegele & Quiring, 2013). This leaves a window for other users, often people outside of one's social network friends/followers, to post reactive comments

addressing other users' opinions, as well as their own take on the news (Walther & Jang, 2012; Ziegele, Weber, Quiring, & Breiner, 2018). Thus, comment sections exist for individuals to voice their opinions about the news, give alternative points of view, and debate or discuss other users' comments (Larsson, 2018; Reich, 2011).

Research has noted that commenting online socially influences other individual's opinions, as people make generalizations about public opinion given the content posed in the comments (Lee, 2012; Lee & Jang, 2010). Furthermore, the inference of public opinion works to inform their own opinions on the topic, as individuals seem to conform to what they think others believe (Lee & Tandoc, 2017). This implies that comments are a particularly powerful socializing and learning agent, thus further sparking the need to research this area and get a deeper understanding of the motivations behind commenting or reacting to other user's comments.

The Affect Online Comments Can Have

Thus far, the research into commenting online has focused on a large variety of topics. Inline with what has already been discussed, research has investigated how social media and commenting can affect individuals' perceptions of reality, in addition to how this is promoted by the homogeneity of news within one's social network (Neubaum & Krämer, 2017; Pariser, 2011). Outside of this, a prominent research area for online news and audience participation is investigating the effects of comments on political opinions, as well as political efficacy and participation (Boczkowski & Mitchelstein, 2012; Hardy & Scheufele, 2005; Mutz & Young, 2011; Nisbet & Scheufele, 2004). Within this research, commenting on political news was found to increase offline political participation (Hardy & Scheufele, 2005), increase perceived political efficacy (Boczkowski & Mitchelstein, 2012; Nisbet & Scheufele, 2004), and allow individuals to

feel more competent in regard to their political knowledge and ability (Boczkowski & Mitchelstein, 2012). Outside of this research, scholarly attention has been given to the civility and incivility of comments online and their effects on perceived journalistic quality (Prochazka, Weber, & Schweiger, 2018). Noting that the presence of uncivil comments leads readers to evaluate news quality more negatively (Prochazka, Weber, & Schweiger, 2018). However, even more broadly, this research has suggested that the presence of any comments can negatively affect the perceived journalistic quality of the news story (Prochazka, Weber, & Schweiger, 2018). Another notable area of research into the effects of comments is in regard to how comments can invoke prejudice (Hsueh, Yogeeswaran, & Malinen, 2015; Lee, Kim, & Cho, 2017). This research notes that exposure to prejudice comments affects the perceptions of readers, evoking the expression of more negative attitudes toward the group being discussed, thus increasing prejudiced behaviours and thoughts (Hsueh, Yogeeswaran, & Malinen, 2015). Despite the body of research investigating the effects of online commenting, there is still a lack of research detailing individual's motivations for commenting and engaging online (Lee & Tandoc, 2017). Although some ideas have been suggested there has been no consensus within the literature (Lee & Tandoc, 2017). Therefore, it is time to better understand these motivations, as comments have been clearly seen to affect a variety of perceptions and behaviours.

Research on the Motivations for Commenting

There are many hypotheses about what motivates individuals to comment and participate online, however there is still relatively little actually known about why people engage in commenting or online discussions (Lee & Tandoc, 2017). Generally speaking, it is thought that individuals comment to either promote their opinion, or to react to the author's and other users' comments and opinions (Springer, Engelmann, & Pfaffinger, 2015). In addition to these general

assertions, research has gone into news factors (Eilders, 2006; Shoemaker, 1996; Ziegele, Breiner, & Quiring, 2014), discussion factors (Salgado & Bobba, 2019; Ziegele, Breiner, & Quiring, 2014; Ziegele, Weber, Quiring, & Breiner, 2018), and motivational dimensions (Springer, Engelmann, & Pfaffinger, 2015) as motivational agents for commenting. For the remainder of this paper, research addressing these hypothesized motivations for commenting will be discussed.

The Spiral of Silence Theory. Although this theory has fluctuated in regard to its popularity and applicability, some researchers believe that the spiral of silence theory offers a good starting point to analyze commenting and motivations for participating online (Walter, Brüggemann, & Engesser, 2018). The main idea behind this theory is that people risk social isolation when they comment online, or express opinions that deviate from public opinion (Walter, Brüggemann, & Engesser, 2018). Thus, this theory suggests that depending on one's knowledge, the publicness of their commenting, and the climate of the comment section, people will either choose to voice their opinion or remain silent (Walter, Brüggemann, & Engesser, 2018). The challenge to this theory is that individuals are now able to comment anonymously, bringing into question the applicability of this theory in other forms of social media, where anonymity is granted and comments are not attached to one's personal identity (Neubaum & Krämer, 2017). Thus, this theory will not likely be used within this study, however, is mentioned as an important stepping-stone for the research into individuals' motivations for commenting online.

Discussion Factors. Although there are also news factors that could influence online commenting, these are generally thought to be related to motivations for news selection online,

rather than motivations for commenting and thus will not be addressed again in this section (Ziegele, Breiner, & Quiring, 2014).

There are several discussion factors that have been highlighted due to their influence on individual's willingness to interact online (Ziegele, Breiner, & Quiring, 2014). These discussion factors include levels of aggression, negativity, controversy, personalization, facticity, unexpectedness, and uncertainty that exist within user comments (Løvlie, Ihlebæk, & Larsson, 2018). Generally, it is thought that user comments that contain these discussion factors are more likely to receive a response or evoke user reactions, compared to comments that do not have them (Ziegele, Weber, Quiring, & Breiner, 2018). The research in this area has noted some discussion factors, such as incivility and negativity, to be more influential on commenting behaviour compared to others (Ziegele, Weber, Quiring, & Breiner, 2018). However, these studies generally find significant results overall, indicating that people do in fact comment more when posts contain at least some discussion factors (Ziegele, Weber, Quiring, & Breiner, 2018). Thus, these factors seem to have some level of importance in regard to motivating individuals to comment and will be investigated within the present study.

Motivational Dimensions. There are four motivational dimensions that have been mentioned in the literature as potential contributing factors to online participation (Springer, Engelmann, & Pfaffinger, 2015). These include a cognitive dimension, an entertainment dimensions, a social-integrative dimension, and a personal identity dimension (Springer, Engelmann, & Pfaffinger, 2015). All four dimensions have been related to individuals' motivations for both reading and writing comments online, however for the purposes of this paper, they will be discussed solely in regard to their effect on writing comments online.

The cognitive dimension represents the possibility that people may be commenting online to educate others, answer and ask questions, or simply due to the enjoyment of disseminating information (Springer, Engelmann, & Pfaffinger, 2015). In addition, cognitive motives for commenting are thought to lead to the exchange of more reasoned and fact-based arguments online (Springer, Engelmann, & Pfaffinger, 2015). Alternatively, individuals are considered to be motivated by the entertainment dimension when they write comments as a pastime, and find the experience to be relaxing or a form of escapism (Springer, Engelmann, & Pfaffinger, 2015). Furthermore, individuals are thought to be motivated by this dimension when commenting incorporates humour, as these individuals see comment sections as a form of online entertainment (Springer, Engelmann, & Pfaffinger, 2015). The next dimension, the socialintegrative dimensions, is related to commenting as a means for social utility, where individuals are motivated to comment by their desire to interact with others (Chung & Yoo, 2008, p. 387; Springer, Engelmann, & Pfaffinger, 2015). The last one is the personal identity dimension, which deems individuals motivation for commenting to relate to self-exploration or self-presentation (Springer, Engelmann, & Pfaffinger, 2015). This dimension encompasses the motivations that are driven by the desire to enhance self-confidence and self-affirmation through commenting and expressing one's opinions (Springer, Engelmann, & Pfaffinger, 2015).

These four motivational dimensions offer an interesting perspective as to why people comment online. Various aspects of these dimensions will be incorporated within the questions of the present study's survey, in order to see if individuals' motivations for commenting are in fact influenced by these four dimensions.

Repercussions for Commenting. Although there are a few potential motivations to comment online, the repercussions of expressing one's opinions could also act as a motivational

or deterring agent for commenting, and therefore should be considered as well. Studies have shown that there are negative outcomes associated with commenting online, such as receiving threats or being subject to other forms of harassment (Løvlie, Ihlebæk, & Larsson, 2018). Particularly, people have reported that their online commenting resulted in being socially ostracized at work and within their social circles, receiving hate mail such as feces or threatening letters, as well as being harassed over the phone or stopped and threatened on the street by people of opposing views (Løvlie, Ihlebæk, & Larsson, 2018). This makes it clear that commenting online does not come without any strings attached. Rather, people may deter from expressing opinions publicly in the fear of these severe repercussions. Given this, although repercussions may not increase motivation to comment, they are still an interesting motivational component to online participation that should be considered when researching this topic.

Purpose

In the light of all this information, the present study aimed to look at the ways individuals use social media to access news, their perceptions about the homogeneity and facticity of their news exposures, and how their exposure to online news and news comments influence their beliefs about a topic. From this, individual's motivations to comment online were investigated with respect to the changes within these online news systems and the hypothesized contributing factors mentioned previously. Thus, this study's two major research questions were as follows:

(RQ1) What elements of the news content, headlines, or comments motivate individuals to comment on online news?

(RQ2) How does the setup of online news systems such as Facebook influence motivations for commenting?

CHAPTER 3: Methodology

The present study was designed as a non-parametric, quantitative, online survey-based study. This research style was chosen in order to expand the reach of the study outside of Lethbridge Alberta, gather a larger number of participants, and allow for completion of the survey at any location and time, with relative ease. A qualitative design would not have allowed for the sample size that this study aimed to have without an extended time frame or co-researcher assistance. Additionally, there is very little research in this area that uses interview strategies or other qualitative measures, making a quantitative design in line with other research techniques.

Participants

For this study, participants were acquired using convenience sampling from an accessible online population of Facebook users. All participants were gathered through online social networking sites by posting a link to the online Qualtrics survey on various Facebook news pages, such as Global News, Yahoo News, Super News TV, MTV News, and CTV News Toronto. As not all news pages allow for outside users to publicly post, the survey also posted in various comment sections within news pages such as BBC News, CBC News, CTV News, and Fox News. Moreover, outside of news pages, the survey was additionally posted on public social networking pages and university pages such as The University of Lethbridge page, and Global Citizen, as well as others. Lastly, the survey was distributed via the University of Lethbridge SONA system for undergraduate psychology students to complete for one bonus course credit.

All participants were 18 years of age or older, in order to assure everyone taking part in the study was a legal adult. This study aimed to have 200 participants in order to ensure a fairly large sample size, however it was not capped at 200, which allowed for the larger sample size of 520 participants in the present study. For inclusivity, individuals from all gender identifications

were eligible for participation, as this study does not focus on this particular element as a factor that influences motivation to participate online. Additionally, participant's education level, income, working status, and geographic residence were collected for demographic reasons. The online survey identified as a quantitative study, with the inclusion of one open-ended question, and was constructed and administered using Qualtrics.com. Moreover, this study was in alignment with the university's research ethics standards and was administered to the public after the review and approval of the University of Lethbridge Human Participant Research Committee (HPRC Protocol# 2020-032).

Measures

This was an online quantitative survey-based study that used self-report measures to examine participants' news exposure and motivations to participant. The 45-item survey was created using Qualtrics, and a shareable link was used to distribute the survey. The survey for the present study was not adapted from previous scales, but rather created by the researcher to assess various elements related to the research topics of interest that were previously discussed. The researcher chose this method due to the lack of equivalent instruments available that assess the research questions present in this study. Questions for each measure can be observed in the appendices.

Demographic Information. The first part of the survey was a short, seven-question demographics section that included age, gender identification, personal income, geographic residence, working status, and education level. Participants were able to indicate their age in years and select their gender identification as male, female, transgender, other, or indicate that they would prefer not to say. Moreover, participants were asked to indicate their personal income on a 6-point scale from under \$5,000 to more than \$250,000 a year. In this section, participants

were also asked to indicate their current working status, where answers included full-time and part-time employment, unemployment, student, or prefer not to say. Additionally, participants were asked to indicate the level of education completed thus far, with answers ranging from elementary school level or less, to doctorate degree. Lastly, there were two questions that asked participants to indicate their current residence in terms of country, province or state, as well as indicate the population size out of options that range from large urban city with more than 100,000 residents, to rural town with less than 1,000 residents.

Social Media Use and Selection of Online News. The second section of the survey consisted of 14 questions that assessed various aspects of social media use and news selection. In this section, there was one question asking where participants receive most of their news from, where various options were listed such as traditional newspapers, Twitter, Facebook, news websites, or other forms of social media. For this question participants could also indicate that they do not read or pay attention to the news. To assess the frequency of social media use, five questions were included that asked participants to indicate on a six point scale, from never to more than once per hour, how often they use Facebook or news websites, as well as how often they post on social media and discussion groups. There were also two questions asking participants to indicate how many news websites they follow, as well as the number of content specific news pages they follow, where answers could be given on a six point scale ranging from zero to five or more. Furthermore, in this section there were six questions that asked participants to indicate the homogeneity of their news exposure, and how the news influences the strength of their opinion on a topic. More specifically, participants were asked questions pertaining to how often they read about topics of interest in the news, how similar the news on their Facebook is, and if they believe they are exposed to a good variety of news. For all of these items, participants were given multiple-choice options to indicate their answers. An exhaustive list of the survey questions and the response options for each can be seen in Appendix A.

Trust and Facticity. The third section of the survey asked participants to answer 10 questions regarding their trust in the news, and how their beliefs and strength of position on a topic are affected by their exposure to various types of content, as well as the individuals who share it. Specifically, there were three questions that asked how trustworthy and factual the participants believe the news is in general, and on Facebook. For these questions, participants could indicate an answer from never to always. There were also two questions that asked participants about fake news and their inclination to question the facts of online news, where they could answer on a five-point scale from never to always as well. Moreover, three questions were included in this section asking about various aspects of participant news exposure and if they work to change or validate their opinion on a topic. Lastly, this section included two questions about receiving news from online friends/followers, and if the news is perceived as more trustworthy when it comes from this source. The questions for this measure are listed in Appendix A.

Motivation to Comment. The fourth section of the survey consisted of 14 questions addressing commenting behaviour and individual's motivations for commenting. Specifically, three questions asked about the frequency of online news reading and participation, where participants could answer on a five-point scale from never to more than once per day. Next, there were two questions that asked the participant to indicate how likely they are to comment or refrain from commenting in various cases, where an answer could be selected from a list of multiple-choice options. Moreover, there was one question that asked participants to indicate the online service they tend to use and comment on, where various social media services such as

Facebook, Twitter, and Instagram were provided. There was one question that asked participants to indicate which option best reflected their news consumption and commenting behaviour, where answers ranged from "I always read the whole story before commenting", to "I don't read the story, I only read the headline before commenting". Additionally, within this section there were five questions regarding specific motivations for commenting. Before addressing the hypothesized motivations from in the literature, one open-ended question was included that asked participants to write one or more of their personal motivations for commenting. This was included to see if there were motivations outside the ones proposed in the literature and was the only open-ended question included within the survey. Following this, one question asked about elements of the news story that provoked commenting, while two other questions asked about elements of the comments that motivate a response. The multiple-choice options that followed these questions related to the hypothesized motivations, such as discussion factors or motivational dimensions. For these questions, participants were able to select as many motivations resonated with them, or could select 'other' and indicate a different motivation. Moreover, two questions were included in this section that assessed how comments and commenting behaviour strengthen or weaken participants views on a topic, where they could answer on a five-point scale from never to always. Lastly, a question was asked pertaining to how participants exposure to certain news topics influence their motivation to comment, where participants could answer on a five-point scale from none at all to a great deal. A full list of the survey questions in this area can be seen in Appendix A.

Procedure

Firstly, an online Qualtrics survey was created and distributed online via a shareable link. Next, the study was distributed online by posting and commenting on various Facebook news and social networking pages including, but not exclusive to, Global News, Yahoo News, Global Citizen, The University of Lethbridge page, and CTV News. The post invitation included the letter of invitation required by the University of Lethbridge's ethics board, as well as a link to the anonymous survey. After recruitment, participants began the 45-item survey, which took approximately 10 to 15 minutes to complete. Participants encountered a consent form at the start of the survey and signed off on their willingness to participate in the study and allow the use of their data afterward. Following the completion of the survey, participants were debriefed with relevant information. The survey remained active and continued to collect data until the termination date of the study. After the survey became inactive, participant data was exported from Qualtrics into IBM SPSS Statistics (Version 27) (SPSS) for statistical analysis.

Once in SPSS, the survey data was organized, and any data entry errors or participants that did not properly consent were excluded before running statistical analyses. As the survey was completely anonymous, there was no way to eliminate a particular individual's data once it was entered and submitted. As only aggregate data are reported, there were no names or identifying information collected for the present study, thus feedback on study findings or removal of one's data after submission could not be done after responses has been submitted. However, after the data analysis and submission of the final written thesis, articles will be submitted for potential publication, and any participants who wished to see the study's findings may find those through the journal.

Method of Analysis

Data was extracted from Qualtrics and exported into SPSS Statistics for analysis. As this study is quantitative and nonparametric, the data from the survey was analyzed in regard to descriptive statistics and correlational relationships. Firstly, descriptive statistics were used to analyze the demographic section results, where frequency were analyzed to identify participants age, gender, socioeconomic status, and education level. Moreover, frequencies were analyzed to examine what motivational factors are more likely to lead to commenting behaviour. For this, the means for the various discussion factors and motivational options presented in the survey were compared against each other to indicate which factors were selected more often as motivations for commenting. Additionally, means were calculated to determine on average, how many participants are using Facebook for their news information, as compared to other social media news options. Moreover, a correlation was conducted to assess the relationship between the homogeneity of news on Facebook and the severity of the participant's position on the topic. Another correlation was conducted to analyze the relationship between the strength of one's position on a topic and their motivation to comment online. Additionally, a correlation was conducted to see the relationship between homogeneity of news and motivations for commenting. Pearson Chi-Square tests were conducted on relevant significant correlations to analyze which level(s) of the variables were contributing to the significant relationship. Lastly, to analyze the open-ended question regarding motivations (Q40), a thematic analysis was conducted to pull out themes from various client answers that work to reflect participants motivations to participate online. These themes are presented in frequency of occurrence as well.

CHAPTER 4: Results

The purpose of this study was to identify the ways individuals use social media to access news, how their exposure to online news and news comments influence their beliefs about a topic, and how this influences individual's motivations to comment online. This chapter describes the findings used to address the following research questions:

- 1. What elements of the news content, headlines, or comments motivate individuals to comment on online news?
- 2. How does the setup of online news systems such as Facebook influence motivations for commenting?

Data Screening

The data for the present study was directly entered from Qualtrics into SPSS Statistics. In order to ensure all data was entered correctly, the dataset was downloaded three times and checked by the researcher. Analysis of the data was conducted using SPSS and Excel.

Missing Data

During the informed consent process, participants were informed that they were free to withdraw at any point in the study without penalty, as per the involvement of the ethics boards. Given this, some participants chose not to complete the study, or withdrew part way through the study. When the data was extracted from Qualtrics and moved into SPSS Statistics, there were 631 participants present in the data set. After careful analysis of the dataset, 111 participants were excluded from the present data set due to study withdrawals that resulted in a significant amount of incomplete data, leaving 520 participants to be analyzed for the present study.

Descriptive Statistics

Demographics

Participants were asked to indicate which gender they most identify with. Of the 520 participants, 377 identified their gender as female, 136 identified as male, three as transgender, two indicated *Other*, and one participant selected *Prefer not to say*, as seen in Table 1.

Table 1

Please indicate which gender you most identify with.

	Frequency	Percentage	
Female	377	72.5	
Male	136	26.15	
Transgender	3	0.58	
Other	2	0.38	
Prefer Not to Say	1	0.19	

Participants were additionally asked to indicate their current area of residence. The majority of participants identified as Canadian residents, however there were participants who indicated residence in the United Kingdom, United States of America, Philippines, Israel, Kenya, Zimbabwe, United Arab Emirates, Mexico, India, Ghana, and Ireland, as seen in Table 2

Table 2

Please indicate your current area of residence (i.e. Country and Province/State)

	Frequency Percentage		
Canada	463	89.04	
United Kingdom	13	2.5	

United States of America	25	4.8
Philippines	1	0.19
Israel	1	0.19
Kenya	1	0.19
Zimbabwe	1	0.19
United Arab Emirates	1	0.19
Mexico	1	0.19
India	1	0.19
Ghana	1	0.19
Ireland	1	0.19

Most participants indicated residing in a *large city* (n = 208) or *medium city* (n = 185), while the remaining participants indicated residing in a *small town* (n = 89) or *rural area* (n = 35). The age of participants ranged from 18 years to 83 years of age, with the majority of participants (n = 348) between the ages of 18 to 26 years. In line with this, the majority of participants identified their working status as *Student* (n = 228), while the remaining participants identified their working status as *Employed full-time* (n = 99), *Employed part-time* (n = 115), *unemployed* (n = 49), or indicated that they would *prefer not to say* (n = 27), as seen in Table 3.

Table 3

Please indicate your working status.

	Frequency	Percentage	
Employed full-time	99	19.04	
Employed part-time	115	22.12	
Unemployed	49	9.42	
Student	228	43.85	

Prefer not to say 27 5.19

Participants were also asked to indicate the range that best represents their yearly personal income. Participants responses ranged from under \$5,000 a year to more than \$250,000 a year and are listed in Table 4.

Table 4

Please indicate the range that best represents your personal yearly income.

	Frequency	Percentage
Under \$5,000 a year	96	18.46
\$5,000 to \$19,999 a year	196	37.69
\$20,000 to \$34,999 a year	60	11.54
\$35,000 to \$99,999 a year	94	18.08
\$100,000 to \$249,999 a year	23	4.42
More than \$250,000 a year	2	0.38
Don't know, or prefer not to say	48	9.23

In line with this, participants were asked to indicate their highest levels of education completed thus far, ranging from elementary school level or less, to Doctorate degree. As seen in Table 5, most participants indicated that they had obtained a high school diploma, however there were participants within each education demographic.

Table 5

Please indicate the level of education you have completed so far.

	Frequency	Percentage
Elementary school level or less	2	0.38
High school diploma	323	62.12
College diploma	83	15.96
Undergraduate degree	78	15
Masters degree	30	5.77
Doctorate degree	3	0.58

Information Sources

To explore sources of information, participants were asked to indicate where they get most of their news from. The responses of those who answered can be seen on Table 6. It appears from the results that most participants get their news from Facebook or news websites, and seldomly use the newspaper.

Table 6
In general, where do you get most of your news
from? (i.e. news about current events, politics, global
warming, celebrities/entertainment, health,
education, sports, international or national events,
etc)

	И	%
The Newspaper	9	1.7%
Twitter	54	10.4%
Instagram	93	17.9%
Facebook	163	31.3%
News websites	136	26.2%
Other forms of social media (i.e. snapchat)	45	8.7%
I don't pay attention to the news	19	3.7%
Missin System	1	0.2%

Participants were additionally asked to indicate how many news websites they follow (i.e. DailyMail, CNN, etc). Most participants indicated that they follow *zero* sites (n = 170), while others selected *one site* (n = 75), *two* sites (n = 83), *three* sites (n = 72), *four* sites (n = 41), or *five* or more sites (n = 79). To investigate the types of news websites followed by participants, they were also asked to indicate how many news websites they follow that are based on specific topics, such as politics or sports. Two hundred and twenty five participants indicated that they follow *zero* news sites based on specific topics, while other participants reported following *one* (n = 72), *two* (n = 87), *three* (n = 52), *four* (n = 16), or *five or more* (n = 67) specific topic news website.

Participants were additionally asked to report membership to any online discussion groups or forums. For this question, 203 participants selected *yes*, 258 selected *no*, and 59 indicated they were *unsure*. The 203 participants that indicated their membership to online discussion group(s) were also asked to report how often they post in the discussion group(s). These participants responses are listed in Table 7.

Table 7

How often do you post in the discussion group?

	И	%
Never	52	10.0%
Once a month	46	8.8%
More than once a month	23	4.4%
Once a week	21	4.0%
Multiple times a week	37	7.1%
Once a day	8	1.5%
More than once a day	16	3.1%
Missin System	317	61.0%

To investigate other sources of news and information, participants were asked if they receive news posts from Facebook "friends" or "followers". As seen in Table 8, participants reported never receiving posts from friends on Facebook, or receiving posts from friends less than one a week to more than one per hour.

Table 8

Do you receive news posts from your

Facebook "friends"/"followers"?

	И	%
Never	96	18.5%
Less than one a week	116	22.3%
More than one a week but less than daily	132	25.4%
Daily	139	26.7%
Hourly	24	4.6%
More than one per	13	2.5%

Moreover, participants were asked to report if they are more likely to read news shared by a friend or follower online, and 208 participants indicated *yes*, while 225 indicated *sometimes* and 87 participants selected *no*.

Typical Habits

Participants typical habits were explored as well in the present study. As seen in Table 9, participants were asked to indicate how often they use Facebook. Most participants indicated daily use or hourly use, while others indicated a range of Facebook use from never to more than once per hour.

Table 9

Please indicate how often you use

Facebook.

	И	%
Never	65	12.5%
Less than once a week	56	10.8%
More than once a week but less than	66	12.7%
Daily	239	46.0%
Hourly	76	14.6%
More than once per	18	3.5%

Similarly, participants responses when asked to indicate how often they use News Websites such as BBC or The New York Times are listed in Table 10.

Table 10

Please indicate how often you use News

websites (i.e. The New York Times,

HuffPost, BBC, etc.)

	И	%
Never	111	21.3%
Less than once a week	140	26.9%
More than once a week but less than	130	25.0%
Daily	122	23.5%
Hourly	16	3.1%
More than once per	1	0.2%

To address engagement with the news and habits while online, participants were asked to report how often they post on social media. As listed in Table 11, participants indicated posting frequencies from *never* to *more than once per hour*, however most participants selecting posting *less that once a week*.

Table 11

Please indicate how often you post on social

media (i.e updating a status, sharing

content, commenting on posts, etc)

	И	%
Never	41	7.9%
Less than once a week	181	34.8%
More than once a week but less than	155	29.8%
Daily	118	22.7%
Hourly	17	3.3%
More than once per	8	1.5%

Moreover, participants were asked to indicate how often they participate online (i.e. commenting, sharing, liking), to which 80 participants indicated *never*, 147 selected *less than once a week*, 138 selected *more than once a week but less than daily*, 107 indicated *daily* participation, and 48 indicated participation *more than once per day*. When investigating further levels of engagement with the news story or post, participants were asked how often they read the comments on online news. One hundred and forty-two participants selected *more than once per week but less than daily*, while 151 participants reported to read the comments of online news *daily*. Of the remaining participants, 39 reported *never* reading comments, 110 reported

reading them *less than once a week*, and 77 participants reported reading comments on news *more than once per day*.

To better understand commenting behaviour, participants were asked how often they comment on online news posts. Participants reported commenting *more than once per day* (n = 30), *daily* (n = 52), *more than once a week but less than daily* (n = 79), *less than once a week* (n = 143), and *never* (n = 216). Participants who selected any answer besides *never* to the abovementioned question were also asked to report which online service they are more inclined to comment on. The responses of the participants who answered are reported in Table 12.

Table 12

Please indicate which online service you are more inclined to comment on.

	И	%
Facebook	182	35.0%
News site	19	3.7%
Twitter	20	3.8%
Instagram	63	12.1%
I likely will not comment either way	18	3.5%
Missin System	218	41.9%

Participants were also asked about their tendency to read certain elements of the news story prior to commenting. Participants could indicate an option that best reflected their news consumption from reading the whole news story before commenting, to reading headlines or none of the story. Responses for this question are listed on Table 13. It appears most participants read the entire news story before commenting on online discussions of the news.

Table 13

Please indicate the option that best reflects your news consumption and commenting behavior.

	И	%
I always read the whole news story before commenting	191	36.7%
I usually read the whole news story before commenting	110	21.2%
I read some of the story before commenting	27	5.2%
I usually just read the headline before commenting	3	0.6%
I don't read the story, I only read the headline before commenting	2	0.4%
I don't comment	157	30.2%
This does not apply to me	28	5.4%
Missin System	2	0.4%

Moreover, participants reported if they were more likely to comment on news from online friends and followers. For this question participants selected *definitely not* (n = 48), *probably not* (n = 131), *probably yes* (n = 246), or *definitely yes* (n = 65), while 28 selected that the question did not apply to them. Participants were also asked to report if they are likely to refrain from commenting online due to a fear of repercussions, to which participants indicated *No, I would still comment* (n = 100), *Maybe, but it would depend on the topic and how strongly I feel about it* (n = 296), and *Yes I would refrain* (n = 121).

Information Suitability

To analyze perceived suitability of participants' news, they were asked to indicate if that believe the news is trustworthy and factual. Participants responses are listed in Table 14.

Table 14

Please indicate if you believe the news is trustworthy/factual?

	И	%
Never	17	3.3%
Sometimes	214	41.2%
About half the	173	33.3%
Most of the time	112	21.5%
Always	4	0.8%

Participants were also asked to indicate the perceived facticity and trustworthiness of their Facebook news, and responses are listed in Table 15.

Table 15

How factual/trustworthy would you say your

Facebook news is?

	И	%
Never trustworthy/factual	44	8.5%
Somewhat trustworthy/factual	262	50.4%
Trustworthy/factual about half the time	122	23.5%
Trustworthy/factual most of the time	68	13.1%
Always trustworthy/factual	3	0.6%
Missin System	21	4.0%

When asked how trustworthy and factual participants believe the news is that comes from online friends and followers, seven reported *not at all*, 167 reported *somewhat*, 15 reported *very*, while 19 reported that they were *unsure*.

More generally, participants were asked to report on their perceptions of fake news and were asked to indicate if they believe online news is fake. The responses showed that participants indicated believing that online news is *never* fake (n = 5), is fake *sometimes* (n = 320), *about half the time* (n = 120), *most of the time* (n = 72), or is *always* fake (n = 3). Moreover, when asked if the prevalence of fake news makes them more inclined to question the messages or facts present in a news story. Participant responses ranged from *never* to *always* and are listed in Table 16.

Table 16

Does the prevalence of 'fake news' make you

more incline to question the messages or facts

presented within a news story?

	И	%
Never	11	2.1%
Sometimes	120	23.1%
About half the time	69	13.3%
Most of the time	202	38.8%
Always	117	22.5%
Missin System	1	0.2%

Information Homogeneity

To explore the potential homogeneity of information, participants were asked to indicate if the types of news that appear on their Facebook page is similar. 205 participants reported *yes*, 243 reported *sometimes*, and 71 reported *no* to seeing similar news on their Facebook. To expand on this, participants were asked to report how often they see news on Facebook about a similar topics or issue. The responses of those who answered are listed in Table 17. The results indicate that most participants see similar topics on Facebook at least half the time, if not more.

Table 17

How often do you see news on Facebook about similar topics or issues?

	N	%
Never - my Facebook is always showing me different	49	9.4%
news/content Sometimes, but not often - my Facebook usually shows me a variety of news/content	76	14.6%
About half the time - I have about 50% of the same types of news and 50% new content	200	38.5%
Most of the time - my Facebook usually shows me similar	165	31.7%
news/content Always - my Facebook is always showing me similar news/content	20	3.8%
Missin System	10	1.9%

Information Influence

Participants were asked about the strength of their opinion about the news they read.

Three hundred and six participants in the study agreed that they have strong opinions about the news, while 95 strongly agreed. Of the remaining participants, 13 indicated that they strongly disagree with having strong opinions about the news, while 106 selected disagree. Participants were additionally asked to indicate how likely they are to adjust their opinion on a topic based on how it is presented in the news. For this, participants responses ranged from extremely unlikely to extremely likely to adjust their opinions, as seen in Table 18. These results indicate that most

participants reported being *somewhat likely* to adjust their opinion based on how it is presented in the news, or *neither likely or unlikely*.

Table 18

How likely are you to adjust your opinion on a topic based on how it is presented in the news? (i.e. "I see news about climate change and believe more/less that it is happening")

	N	%
Extremely unlikely	44	8.5%
Somewhat unlikely	104	20.0%
Neither likely or	170	32.7%
Somewhat likely	186	35.8%
Extremely likely	16	3.1%

Moreover, participants were asked to report if their beliefs or position about a topic get stronger when they see related news online that supports their stance, and if it gets weaker when they see news that does not support their stance. Participant responses to these questions are listed in Table 19 and Table 20

Table 19

Do your beliefs/position about a topic get stronger when you see related news online that supports your stance?

	И	%
Definitely not	9	1.7%
Probably not	51	9.8%
Might or might	154	29.6%
Probably yes	282	54.2%
Definitely yes	24	4.6%

Table 20

Do your beliefs/position about a topic get weaker when you see related news online that does not support your stance?

	И	%
Definitely not	38	7.3%
Probably not	124	23.8%
Might or might	246	47.3%
Probably yes	101	19.4%
Definitely yes	11	2.1%

Additionally, participants were asked if their beliefs about a topic change when they see online friends or followers posting related news. Participants responses ranged from *never* to *always*, as seen in Table 21.

Table 21

Do your beliefs about a topic change when you see your "friends"/"

followers" posting related news?

	И	%
Never	116	22.3%
Sometimes	293	56.3%
About half the	81	15.6%
Most of the time	28	5.4%
Always	2	0.4%

Motivations and Behaviours

Participants were asked to select what elements of the news story motivate them to comment online. For this question, participants could select as many motivational elements of the news story that applied to them. Participants responses are listed in Table 22.

Table 22

What elements of the news story motivate you to comment online? Select all that apply.

	Frequency	Percent
How controversial the story is	233	44.8
Proximity to you	228	43.5

Reach of the story	101	19.4
Damage from the story	210	40.4
Prominence/influence of the people involved	81	15.6
Unexpectedness of the story	78	15
Entertainment	58	11.2
Fact-checking	200	38.5
Other	27	5.2

Participants were additionally asked to indicate what elements of the comments motivate them to participate, as seen in Table 23. For this question, participants could also select as many motivations that applied to them. As mirrored in the question above, controversy was a highly selected motivational factor.

Table 23
What elements of the comments motivate you to participate in the discussion? Select all that apply.

	Frequency	Percentage
Aggression	175	33.7
Controversy	235	45.2
Personalization	192	36.9
Humour	169	32.5
Simplification	160	30.8
Negativity	105	20.2
Unexpectedness	130	25
Other	23	4.4

Those who selected other were provided with the option to indicate additional motivators. For this, passion for a topic (n = 4), correcting factually incorrect information (n = 12), showing

support (n = 2), combating inappropriate or racist comments (n = 1), and feeling like it was as safe space to voice their opinion (n = 1) were noted as additional elements of the comments that motivate participants.

Participants were also asked what they believe represents their motivation to comment best. Responses are listed in Table 24 and show that cognitive motivations such as educating others were most commonly selected.

Table 24
Which of these would you say represents your motivations to comment best? Select all that apply.

	Frequency	Percentage
I want to educate others, ask and answer questions, and show my expertise on a topic	298	57.3
I want to pass time and find reading comments and commenting online entertaining	107	20.6
I want to interact with others and comment as a way to socialize	97	18.7
I want to build my self confidence by showing others what I know	36	6.9
I want to change peoples minds on a topic (nonconformity)	159	30.6
This does not apply to me	96	18.5

To investigate commenting motivations further, participants were asked an open response question regarding their motivations. Through thematic analysis of this question (Q40), various motivations to comment on online news were also identified and are reported as frequencies. Participants indicated wanting to correct incorrect information (n = 132), being passionate about a specific topic (n = 135), wanting to voice their opinion (n = 82), controversial news (n = 38), and news or comments that is racist, offensive, oppressive, or hateful (n = 37) as motivators. Some other motivators included educating others (n = 35), combating others "ignorance" or "stupidity" (n = 29), personal impacts (n = 11), combating disrespect or rudeness (n = 22), showing support (n = 14), engaging in bullying or "trolling" (n = 8), entertainment (n = 5), and being motivated by strong emotions (n = 10). An exhaustive list of themes pulled from the thematic analysis of Q40 are listed in Table 25.

Table 25

What makes you want to comment on online news/posts? Please indicate one or more motivators/triggers (i.e. specific hot topic issues, desire to voice your opinion, controversy, etc.).

	Frequency	Percentage	
I want to correct incorrect information/ misinformation (fake news) in the news or comments.	132	25.38	

I am passionate about a specific topic in the news or comments (i.e. Education, environment, abortions, human

rights, immigration, politics, police brutality, anti-vac, addictions, mental health, farming, BLM, conspiracy theories, Trump, etc.)	135	25.96
The news or comments were racist, offensive, oppressive, discriminatory, or contained hate speech.	37	7.12
I want to provide education/informatio n and inform.	35	6.73
I feel that I am knowledgeable /experienced on the topic in the news or comments.	17	3.27
I want to voice my opinion.	82	15.77
Other's stupidity or ignorance motivate me.	29	5.58
I want to start/ be involved in a discussion, or add value and contribute		

to a discussion, ask/answer questions, or learn/see others opinions.	27	5.19
I am personally impacted by the news or comments.	11	2.12
I want to show support/care for persons, groups, causes, etc.	14	2.69
I want to combat rudeness, bullying or disrespect.	22	4.23
I want to bully, troll, stir the pot, or be rude to others of a different opinion.	8	1.54
There was bad math/statistics or poor grammar and spelling in the news or comments.	4	0.77
There is controversy in the news or comments.	38	7.31
I am bored or doing it for fun/ entertainment.	5	0.96

My friend shared it/commented on it.	7	1.35
I want to drive social improvements.	1	0.19
I want to feel empowered.	1	0.19
My emotions motivated me (anger, upset, etc.)	10	1.92
To report scammers/spam	1	0.19
It felt like a safe space, or others have the same belief and won't likely disagree.	4	0.77
Blank/Unsure or Prefer not to say.	78	15

When asked how much participants exposure to a certain topic relates to their motivation to comment, participants indicated *not at all* (n = 120), *a little* (n = 186), *a moderate amount* (n = 146), *a lot* (n = 48), and *a great deal* (n = 17).

Correlations

Spearman's rho correlation coefficient was used to assess the relationship between how often participants use Facebook with various other factors. Significant correlations existed between how often participants use Facebook and reported strength of opinion about the news they read, $r_s = 0.23$, p < .001, N = 520. Moreover, a significant relationship was found between

how often participants use Facebook and their reports on the variety of news they are exposed to, $r_s = -0.53$, p < .001, N = 70, as well as with their reports on how often they see similar news on Facebook, $r_s = 0.35$, p < .001, N = 510. Additionally, a significant correlation was found between how often participants use Facebook and opinions of how factual and trustworthy Facebook news is, $r_s = 0.42$, p < .001, N = 499. A significant correlation was also found between how often participants use Facebook and how often participants participate on online news, $r_s = 0.27$, p < .001, N = 520, as well as how often they read the comments of online news, $r_s = 0.33$, p < .001, N = 519, and how often they comment on online news $r_s = 0.34$, p < .001, N = 520.

In addition to frequency of Facebook use as a significant correlator with strength of opinion on the news, the Spearman's rho correlation coefficient was used to assess the relationship between this variable and other factors. Reported strength of opinion about the news significantly correlated with how many news websites they follow online, $r_s = 0.37$, p < .001, N = 520, how often participants use news websites, $r_s = 0.35$, p < .001, N = 520, as well as how often they post on social media, $r_s = 0.28$, p < .001, N = 520. Moreover, perceived strength of opinion on the news significantly correlated with how often participants read comments on online news, $r_s = 0.36$, p < .001, N = 519, how often they participate on online news, $r_s = 0.34$, p < .001, N = 520, and how often they comment on online news, $r_s = 0.34$, p < .001, N = 520.

Spearman's rho correlation coefficient was additionally used to assess the relationship between reported likelihood of participants to adjust their opinion on a topic based on how it is presented in the news and various other factors. A significant correlation existed between this variable and participants' beliefs about a topic strengthening when they see news that supports their stance, $r_s = 0.27$, p < .001, N = 520, as well as participants' beliefs about a topic weakening

when they see news that does not support their stance, $r_s = 0.23$, p < .001, N = 520, and changing opinions after seeing related news from a friend online, $r_s = 0.23$, p < .001, N = 520.

Chi-Square Tests

A Pearson's Chi-Square test showed a statistically significant relationship between how much participants reported their exposure to certain news related to their motivation to comment online, and if participants' beliefs on a topic were strengthened if they comment on posts that are aligned with their view, X^2 (20, N = 516) = 72.98, p < .001. To analyze which level(s) of these variables were contributing to the significant relationship, a crosstabulation was conducted. Table 26 indicates the results of the crosstabulation, as well as the calculated probability values. A new, adjusted alpha value of 0.002 was calculated through the application of the Bonferroni correction to account for type 1 error inflation. Comparing the calculated probability values with the adjusted alpha value of .002, a significant impact can be seen between *never* "strengthening your belief on a topic if you comment on posts in line with your view" and indicating *None at all* to the influence exposure to certain news topics relate to motivation to comment, p < .002.

Table 26

How much would you say your exposure to certain news topics/issues relates to your motivations to comment online? (i.e. "I see news about global warming a lot so I am more likely to comment on news about global warming") * If you comment on a post that is inline with your views/beliefs, does it strengthen your belief in the topic? Crosstabulation

If you comment on a post that is inline with your views/beliefs, does it strengthen your belief in the topic?

					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	a and to pro.		
				Sometimes,	Maybe, but it			This does
				but not	depends on	Most of the		not apply to
			Never	always	the topic	time	Always	me
How much would you say	None at all	Count	24.000	34.000	32.000	8.000	3.000	18.000
your exposure to certain		Adjusted						
news topics/issues relates		Residual	4.300	0.200	-2.500	-2.800	-0.800	3.700
to your motivations to			0.000	0.841	0.012	0.005	0.424	0.000
comment online? (i.e. "I see news about global	A little	Count Adjusted	18.000	61.000	69.000	23.000	3.000	12.000
warming a lot so I am more likely to comment on news about global		Residual	-0.100	1.900	0.200	-1.100	-1.900	-0.600
warming")			0.920	0.057	0.841	0.271	0.057	0.549
, , , , , , , , , , , , , , , , , , ,	A moderate							
	amount	Count Adjusted	7.000	34.000	66.000	28.000	7.000	4.000
		Residual	-2.400	-1.400	2.500	1.800	0.800	-2.500
			0.016	0.162	0.012	0.072	0.424	0.012
	A lot	Count Adjusted	2.000	9.000	18.000	14.000	4.000	1.000
		Residual	-1.400	-1.500	0.100	3.000	1.800	-1.500
			0.162	0.134	0.920	0.003	0.072	0.134
	A great deal	Count Adjusted	0.000	5.000	4.000	3.000	2.000	3.000
		Residual	-1.400	0.200	-1.100	0.300	1.800	1.700
			0.162	0.841	0.271	0.764	0.072	0.089

Moreover, another Person's Chi-Square test showed a significant relationship between how much participants reported their exposure to certain news related to their motivation to comment online, and if commenting on a post that is not in line with their views would change their view, X^2 (20, N = 517) = 85.489, p < .001. A crosstabulation was conducted to analyze which level(s) of these variables were contributing to the significant relationship, and uses a Bonferroni correction to control for type 1 error inflation. Results of the crosstabulation, as well as the calculated probability values are listed in Table 27. Comparison of the calculated probability values and the adjusted alpha of .002, three significant relationships can be seen. Significance is seen between indicating *None at all* for how much exposure to certain news

topics relates to motivations to comment and *never* changing your beliefs if you comment on posts that are not in line with your views, p < .002. Significance influence was also seen between those indicating *Maybe*, *but it depends on the topic* to changing view after commenting on posts not in line with their views, and the indicating no relationship between exposure to news and motivation to comment, p < .002. Finally, a significant influence is seen with the *Maybe*, *but depends on the topic* level of the variable, and feeling exposure to news *moderately* impacts motivations to comment, p < .002.

Table 27

How much would you say your exposure to certain news topics/issues relates to your motivations to comment online? (i.e. "I see news about global warming a lot so I am more likely to comment on news about global warming") * If you comment on a post that is not inline with your views/beliefs, does it change your view? Crosstabulation

If you comment on a post that is not inline with your views/beliefs, does it change your view?

					Jour .	1011.		
				Sometimes,	Maybe, but it	M		This does
			37	but not	depends on	Most of the	A 1	not apply to
			Never	always	the topic	time	Always	me
	None at all	Count Adjusted	44.000	42.000	16.000	1.000	0.000	17.000
		Residual	5.800	0.200	-6.000	-0.700	-1.000	2.400
			0.000	0.841	0.000	0.484	0.317	0.016
How much would you say	A little	Count Adjusted	27.000	67.000	75.000	3.000	0.000	14.000
your exposure to certain news topics/issues relates		Residual	-1.800	0.600	1.400	0.100	-1.300	-0.700
to your motivations to			0.072	0.549	0.162	0.920	0.194	0.484
comment online? (i.e. "I	A moderate							
see news about global warming a lot so I am more	amount	Count Adjusted	18.000	47.000	71.000	1.000	2.000	7.000
likely to comment on news		Residual	-2.300	-0.600	3.600	-1.000	1.500	-2.000
about global warming")			0.021	0.549	0.000	0.317	0.134	0.046
,	A lot	Count Adjusted	5.000	16.000	21.000	3.000	0.000	3.000
		Residual	-1.500	-0.100	1.100	2.800	-0.600	-0.600
			0.134	0.920	0.271	0.005	0.549	0.549
	A great deal	Count	2.000	5.000	5.000	0.000	1.000	4.000
		Adjusted						
		Residual	-0.700	-0.400	-0.600	-0.500	2.900	2.200
			0.484	0.689	0.549	0.617	0.004	0.028

Additionally, a third Pearson's Chi-Square showed a significant relationship between how much participants believe their exposure to news relates to motivates to comment, and if their opinion is strengthened when seeing related news that supports their stance, X^2 (16, N =

) = 65.721, p < .001. To analyze which level(s) of these variables were contributing to the significant relationship, a crosstabulation was conducted and a new adjusted alpha value of .002 was calculated through the application of the Bonferroni correction, which accounts for type 1 error inflation. Through a comparison of the calculated probability values and the adjusted alpha, a significant impact can be seen between indicating *None at all* for how much exposure to certain news topics relates to motivations to comment and *Probably not* and *Probably yes* levels of the other variable, p < .002, respectively. Moreover, there is a significant relationship between indicating the exposure to certain news moderately relates to motivations to comments, and *Probably yes* to strengthening your position on a topic when seeing news that supports their stance, p < .002. Lastly, a significant influence is seen between the feeling exposure to certain news relates *a lot* to motivations to comment and definitely having beliefs about a topic strengthened when seeing news that supports their stance, p < .002. These results are indicated in Table 28.

Table 28

How much would you say your exposure to certain news topics/issues relates to your motivations to comment online? (i.e. "I see news about global warming a lot so I am more likely to comment on news about global warming") * Do your beliefs/position about a topic get stronger when you see related news online that supports your stance? Crosstabulation

Do your beliefs/position about a topic get stronger when you see related news online that supports your stance?

					Might or		
			Definitely not	Probably not	might not	Probably yes	Definitely yes
	None at all	Count	4.000	27.000	37.000	47.000	5.000
How much would you say		Adjusted					
your exposure to certain		Residual	1.500	5.400	0.300	-3.800	-0.300
news topics/issues relates			0.134	0.000	0.764	0.000	0.764
to your motivations to	A little	Count	2.000	14.000	65.000	100.000	5.000
comment online? (i.e. "I		Adjusted					
see news about global		Residual	-0.900	-1.200	2.000	-0.200	-1.600
warming a lot so I am more			0.368	0.230	0.046	0.841	0.110
likely to comment on news	A moderate						
about global warming")	amount	Count	2.000	6.000	38.000	96.000	4.000
		Adjusted					
		Residual	-0.400	-2.700	-1.100	3.300	-1.300
			0.689	0.007	0.271	0.001	0.194
	A lot	Count	0.000	3.000	9.000	29.000	7.000
		Adjusted					
		Residual	-1.000	-0.800	-1.700	0.900	3.400
			0.317	0.424	0.089	0.368	0.001
	A great deal	Count	1.000	0.000	4.000	9.000	3.000
		Adjusted					
		Residual	1.300	-1.400	-0.600	-0.100	2.600
			0.194	0.162	0.549	0.920	0.009

A final Pearson's Chi-Square test showed a significant relationship between the similarity between news on participants' Facebooks and their strength of opinion about the news, X^2 (6, N = 519) = 19.145, p = .004. A crosstabulation was conducted to analyze which level(s) of these variables were contributing to the significant relationship. Additionally, a Bonferroni correction was used to control for type 1 error inflation and the adjusted alpha is reported as .004. Table 29 indicates the results of the crosstabulation, as well as the calculated probability values. A significant influence is seen between strongly disagreeing with having strong opinions about the news, and sometimes having similar news show up on Facebook, p = .001.

Table 29

Would you say you have strong opinions about the news you read? * Would you say the types of news that show up on your Facebook page are similar? Crosstabulation

Would you say the types of news that show up on your Facebook page are similar?

			Yes	Sometimes	No
	Strongly disagree	Count Adjusted	10.000	0.000	3.000
		Residual	2.800	-3.400	1.000
W14			0.005	0.001	0.317
Would you say you have strong opinions about the news you read?	Disagree	Count	42.000	42.000	22.000
		Adjusted Residual	0.000	-1.700	2.400
			1.000	0.089	0.016
	Agree	Count Adjusted	117.000	154.000	35.000
		Residual	-0.700	1.900	-1.800
			0.484	0.057	0.072
	Strongly agree	Count	36.000	47.000	11.000
		Adjusted Residual	-0.300	0.700	-0.600
			0.764	0.484	0.549

CHAPTER 5: Discussion

A summary of all the major finding from the present study will be presented within this chapter and accompanied by a discussion of relevant findings from previous literature. The present study aimed to investigate how individuals use social media to access news, as well as how their exposure to online news and comments influences their beliefs on a topic and motivations to participate online.

Interpretation of Results

Research Question One

Research question one focused on examining what elements of the news headlines, content, or story comments motivate participants to comment on online news. As discussed in chapter two, many studies have hypothesized what these motivational factors are, but the present study took an exploratory approach to investigate what participants believed their motivators were. These results can then be compared with the findings of previous literature. The results of the present study suggest that more individuals are motivated to comment online when the news story takes place in close proximity to the individual, contains controversy, or has perceived negative consequences. However, another motivator that was commonly selected by participants was fact-checking. With this, it appears that less individuals are motivated to comment online because of factors in the news story such as "influence over people involved", unexpectedness of the story, and entertainment or enjoyment of commenting.

To further investigate research question one, the present study asked participants to indicate what elements of the news story comments motivate them to join in and comment as well. Participants commonly selected motivators such as controversy, personalization, aggression, humour, and simplification. As this was referring to elements of the comment section, it appears that participants seeing controversial, aggressive or humorous comments in the comment section of online news stories can work as a motivator to contribute to the discussion. Moreover, simplifying a perceivably complex news topic so others can understand, or adding personal thoughts and experience were factors that were commonly selected as motivators. Participants were also asked an open-ended question about their motivation to comment on online news, to which they were able to indicate as many motivators as they wished.

The results from the thematic analysis of this question suggest similar motivators to the ones discussed above. Participants appear to be motivated to comment as a reflection of their passion toward a specific topic. This was additionally reflected in the Spearman's correlation coefficients that highlighted the relationship between perceived strength of opinion on the news and how often participants read comments and participate on related online news. Moreover, the thematic analysis revealed that correcting incorrect information, voicing one's opinion, and reacting to racist, offensive or hateful comments were motivating factors as well.

Connecting Back to the Literature. To compare these findings to previous research, it appears that the discussion factors outlined in chapter two, which were proposed to increase individual's responses by evoking a reaction, were commonly selected motivations for the present study (Løvlie, Ihlebæk, & Larsson, 2018; Ziegele, Breiner, & Quiring, 2014). However, not all discussion factors appeared to motivate commenting equally, and some discussion factors that were expected to increase commenting engagement did not. For example, the present study saw that unexpectedness was not a commonly selected motivational factor, but other discussion factors such as controversy were very commonly selected motivators. The thematic analysis of question 40 revealed discussion factors of incivility and negativity as additional motivators. These were noted in previous literature as some of the more substantial contributors to motivation, and although they were selected in the present study, they were not seen to be as strong of a motivator as other discussion factors such as controversy (Ziegele, Weber, Quiring, & Breiner, 2018). Moreover, the motivational dimensions explored in chapter two also appeared to be common motivational factors in the findings of the present study. The four dimensions explored in chapter two, being cognitive, entertainment, social-integrative, and personal, were all identified as motivational factors within the present study. Although not every dimension was

selected equally, it appears that these factors play a role in individuals' willingness to participate online (Chung & Yoo, 2008, p. 387; Springer, Engelmann, & Pfaffinger, 2015). The present study's findings suggest that the cognitive dimension may be the most important when it comes to motivations to comment on online news, and other dimensions such as entertainment or social-integrative appear to contribute less. Given this, it seems that although the results of the present study are not exactly the same as previous literature, the motivators highlighted by participants appear in line with that of previous research.

Research Question Two

Research question two focused on investigating how the setup of online news systems like Facebook relate to participants' motivations for commenting. To investigate this, participants were asked questions about their typical habits and sources for online news, as well as how participants perceive their exposure to news. The results suggest that the majority of participants use Facebook as a platform for their news consumption and typically use the site daily. It also appears that more participants are likely to comment on Facebook compared to other online platforms. Additionally, when looking at the variety of news exposure, participants appear to report seeing similar news content of their Facebook, and typically see similar news at least half the time or more. This seems interesting, as participants also indicated that they would probably strengthen their opinion on a topic when they see supportive news stories, and the study findings suggest that strength of opinion on a topic relates positively to motivation to comment. These findings indicate that the Facebook platform tends to provide users with relatively homogeneous news exposure, which appears to contribute to their strength of position on a topic and thus their motivation to comment on online news. This is in line with previous literature that also suggests that homogeneous news exposure, or echo chambers, are contributing factors to

motivation to participate online (Jamieson & Cappella, 2008; Walter, Brüggemann, & Engesser, 2018). It appears that the majority of participants are getting news from Facebook, and other platforms tend to be less popular, making understanding the relationship between news available on this platform and users' motivations to comment important. The results of the chi-square analyses further confirm this, as significance was found between how much participants believe their exposure to news relates to motivation to comment, and if their opinion is strengthened when seeing related news that supports their stance. As well as a significant relationship between indicating exposure to certain news relating to their motivation to comment online, and participants strengthening their position on a topic if they comment on posts that are aligned with their view. This appears to be in line with the findings of previous literature, as the present findings suggest that the news itself and the users' engagement with the news story are important factors in determining the strength of ones' position on a topic. However, the present study expands on this by demonstrating the relationship between strength of opinion on a topic and increased motivation for online participation.

Implications

As explored in the second chapter, there are many ways online comments on news work to impact individuals' behaviours and perceptions. There is acknowledgment that online news and commenting can impact individual's perceptions of reality, and that this is promoted by the homogeneity of news within one's social network (Neubaum & Krämer, 2017; Pariser, 2011). Thus, an important implication of the present research is that if offers further insight into how the dynamics of online news and user participation relate to individual's perceptions of a news topic, and willingness to participate. In addition, the present research expands on the work of Ziegele and colleagues (2018) by offering further insights into motivating factors for online

participation, which has implications for news professionals and communication scholars. The present study's findings suggest that a lot of people are using platforms like Facebook to get their news. Understanding the role of recommendation systems that work to create homogeneous news environments on these platforms seems like an important implication to consider as well, given that the findings suggest that the type and amount of content users are seeing is an important motivating factor for online participation, and also appears to relate to the strengths of one's position on a topic. Although this may have less clinical applications, businesses that create and publish news could likely gain further insight from the findings of the present research that could help to increase online user engagement with their content. In this day and age, many of these platforms publishing news, such as Facebook, make money off of user engagement. This makes knowing ways to increase online participation through various motivating factors potentially profitable. Using the findings of the present study in this manner could allow for these companies to include factors in their stories that increase engagement, which could increase reach of the story and company profits.

Given the impact online news can have on shaping individuals' realities and beliefs about various topics, it seems like a relevant implication to consider how this impacts users. With this, another implication to consider is how these findings can be used by members of society to increase vigilance when reading online news content. Understanding more about how perceptions are shapes and potentially manipulated by online news platforms could be helpful for people trying to engage in online news consumption. As the results suggest that platforms like Facebook don't offer a great variety of news exposure, and this homogeneous news environment can create strong beliefs on a topic, making it important for platform users to be aware of this and potentially seek external news sources to increase variety of exposure. Many participants in

the present study indicated reading online news and commenting on the news, and the results of the present study could be helpful when reflecting on personal motivations to participate. As there were a variety of motivational factors noted, individuals could use the results of the study as a foundation for increasing their own understanding of their online news consumption and motivations to participate.

Limitations and Future Directions

The findings of the present study should only be interpreted with consideration of several limitations. One of the limitations of the present study is in regard to the population distribution. The large majority of the sample population identified as students, within the ages of 18 to 26 years old. Although this population was a target for the present study, having such a large number of students could have influenced some of the findings of the present study, such as one of the higher rated motivations to participate online was identified as simplifying hard topics, educating others, and correcting misinformation. Although these motivators can be present in any population, the inflated student sample for the present student could have increased the prevalence of the cognitive motivator being selected. Thus, it is possible that obtaining a population with less students, or no student, could yield different findings. Given this, it is difficult to make claims around the generalizability of the present study's findings to other populations. Future research should aim to study motivating factors in a more evenly distributed population dynamic, or have replication studies with both student and non-student populations to compare findings and expand on the research of the present study. Moreover, as population was largely Canadian, the findings may not be generalizable to all populations around the world. There may be a benefit to increasing the reach of future studies to populations outside of Canada, in order to expand on the present findings and compare.

Another limitation that can be identified for the present study is in regard to one of the recruitment platforms used to collect participants, SONA. This platform allowed the researcher to collect student participants through the University of Lethbridge psychology program. As a result of the policies and procedures surrounding collection of data and granting of credits through this platform, participants' identifying information were not able to be collected. In addition, the expectation to reduce undue stress for students was to grant credits as soon as possible, rather than at the end. Given that identifying information was not collected and the researcher was granting credits throughout the course of the study, both students that did and did not complete the study were provided credit for participation. A consequence of this was the loss of 111 participants due to a significant amount of incomplete data. Moreover, another limitation to the data collection for the study was that the researcher was unable to tease apart which platforms participants were recruited from. As the study was posted on various pages online and through SONA, there was no way for the researcher to know the specific number of participants obtained from each recruitment strategy once data was compiled in Qualtrics. Future research should attempt to include questions that can collect these details, in order to potentially provide further insight into the findings. Moreover, setting limitations for the amount of time students recruited through SONA have to complete the study may help to reduce incomplete data, and aligning this time limitation with the expectations around granting credits, may also aid in the reduction of incomplete data due to granting credit before completion.

Another noted limitation to the study was in the construction of the survey. Given the new emergence of this topic in research, there were no pre-established scales or inventories available that would have worked to assess the research questions of the present study. This resulted in a researcher constructed survey being created and distributed, and in retrospect, there

are some limitations with creating all the survey questions and statements for a study. There is a possibility that some questions could have been worded differently to increase clarity, or more options be provided to increase inclusivity or the depth of insight available from results. To highlight this with an example, this study did not provide appropriate options for gender identification. Participants were provided the options of male, female, transgender, and other, however there are several other gender identifications that should have been offered to increase inclusivity. Moreover, some questions in the study were on the wordy side and future research may benefit from simplifying these to increase clarity. In addition, given the study was distributed online, the number of questions asked was limited to what was possible to complete in 10-15 minutes. Ideally, the survey would have been longer to allow for larger number of survey items to assess both research questions in greater detail. This may have allowed more insight into the present findings, or even provided greater clarity regarding the second research question. In line with this, it is suggested that future research expand on the present study and increase the focus provided to elements of research question two. It would be suggested to include more questions that assess the impact of how these news systems are set up to provide information, in greater depth. The present study looked at participants' perceptions of these news systems and how they believed it related to their motivations. Future research may consider assessing this measure in a more objective fashion, which could allow for control and experimental groups that assess the relationship between news exposure online and motivations to comment. As the present study's findings suggest passion toward a topic relates to motivations to comment, it appears useful to investigate further how one's strength of position on a topic may be influenced by their news exposure. Additionally, further detailed investigation into how the echo chambers created on platforms like Facebook contribute to the individual's strength of

opinion and motivation to participate, appears useful as well. Given all of this, future research should centre around replication of the study with revisions to the survey questions where necessary, in order to continue the research in this area and expand on the present study's findings. Additionally, it may be useful for future research to investigate these two research questions separately, as this would allow for a greater number of questions to be asked for each, and thus could allow for more insight into the findings.

Summary

In conclusion and despite the above-mentioned limitations, the results of this study suggest that there are many motivating factors that increase individual's willingness to participate in online discussions of news. Although the results of this study are preliminary, it appears that the way the news systems are set up to provide relatively homogenous content relates to individuals' strength of position and in turn their motivation to comment online. As this is an emerging topic within the research, the present study sought to expand on the available literature through exploring individuals' motivations to participate in online news, and investigate the relationship this has with the quality and homogeneity of news presented on online platforms like Facebook. It is the hope that future research will use this study as foundational information to expand upon to further understand the role online news systems have in shaping individuals' perceptions of reality, and how the elements of news presented on these platforms work as motivational factors for engagement.

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Appendix A

INVESTIGATING INDIVIDUALS' MOTIVATIONS TO COMMENT ON SOCIAL MEDIA NEWS INFORMED CONSENT

Start of Block: Consent

Q1 INFORMED CONSENT

ONLINE NEWS BEHAVIOUR SURVEY

You are invited to participate in a research project conducted by master's student Sydney Esselmont of the Education department at the University of Lethbridge. In this study, we are interested in examining individuals online news reading habits, and their motivations for commenting online. Through your participation, I hope to better understand how people use social media to access news, and the motivating factors that influence online commenting behavior.

REPSONSE WILL BE KEPT CONFIDENTIAL, WITH ALL DATA BEING AGGREGATED

About the Survey

This survey should take approximately 10 to 15 minutes to complete. Please only complete the survey once. There are no potential risks or discomforts associated with participation in this study. Benefits include the opportunity to participate in and understand the processes involved in a research study. You may also feel as though you are contributing significantly to research. The scientific community will benefit from the proposed study, as the research is innovative and novel. Outside of these, you will not benefit directly from participation in this research.

This survey closes TBA

ALL RESPONSES WILL BE CONFIDENTIAL

Research Survey Participation

Your participation in this study is completely voluntary; you may decline to participate or skip some of the questions without penalty. All responses are anonymous and confidential. Additionally, only aggregate data will be reported (i.e., tallies and open ended response themes). You are free to withdraw from the study at any point up until the submission of your responses. As your answers are anonymous and confidential, once submitted your data will be impossible to identify, retrieve, and remove.

Privacy Protection

The researchers acknowledge that the host of the online survey (e.g., Qualtrics) may automatically collect participant data without their knowledge (i.e., IP addresses). Please note that confidentiality of data cannot be entirely guaranteed while in transit over the

Internet. Although this information may be provided or made accessible, the researchers will not use or save this information. The privacy policy for Qualtrics is available at https://www.qualtrics.com/privacy-statement/

The collected information will be stored confidentially on a password protected computer in a locked office, with access restricted to the primary researcher Sydney Esselmont and thesis supervisor Dr. Kerry Bernes in the Faculty of Education at the University of Lethbridge. The results will appear in a written thesis document. They may also be presented at conferences and published in peer-reviewed journals. If you have questions at any time about the study or the procedures, you may contact the primary researcher Sydney Esselmont, email sydney.esselmont@uleth.ca. This project has been reviewed and approved by the University of Lethbridge Human Subject Research Committee. If you feel you have not been treated per the descriptions in this form, or your rights as a participant in research have been violated during this project, you may contact Susan Entz, ethics officer, Office of Research Ethics, University of Lethbridge, (403) 329-2747, or susan.entz@uleth.ca.

If you wish to participate in the survey, please check "I agree to participate in this study and have my data used" and then proceed to the questions.

Thank you in advance for your participation.

☐ I agree to participate in this study and have my data used. (4) ☐ I do not agree to participate in this study or have my data used. (5) Skip To: End of Survey If INFORMED CONSENT ONLINE NEWS BEHAVIOUR SURVEYYou are invited to participate in a research project... = I do not agree to participate in this study or have my data used. End of Block: Consent Start of Block: Demographics Q2 Please indicate your age.

Q3 Please indicate which gender you most identify with.
O Male (1)
Female (2)
O Transgender (3)
Other (4)
O Prefer not to say (5)
Q4 Please indicate the range that best represents your personal yearly income.
O Under \$5,000 a year (1)
\$5,000 to \$19,999 a year (2)
\$20,000 to \$34,999 a year (3)
\$35,000 to \$99,999 a year (4)
\$100,000 to \$249,999 a year (5)
O More than \$250,000 a year (6)
O Don't know, or prefer not to say (7)

Q5 Please indicate your working status.
C Employed full-time (1)
Employed part-time (2)
O Unemployed (3)
O Student (4)
O Prefer not to say (5)
Q6 Please indicate the level of education you have completed so far.
C Elementary school level or less (1)
O High school diploma (2)
O College diploma (3)
O Undergraduate degree (4)
O Masters degree (5)
O Doctorate degree (6)
Q7 Please indicate your current area of residence. (i.e. Country and Province/State)

Q8 Please indicate if you live in a urban or rural environment.
C Large Urban city (population greater than 100,000) (1)
Medium sized city (population between 30,000 and 99,999) (2)
Small town (population between 1,000 and 29,999) (3)
O Rural town (population less than 1,000) (4)
End of Block: Demographics
Start of Block: Social media use and selection of online news
Q9 In general, where do you get most of your news from? (i.e. news about current events, politics, global warming, celebrities/entertainment, health, education, sports, international or national events, etc) The Newspaper (1) Twitter (2)
O Instagram (3)
C Facebook (4)
News websites (5)
Other forms of social media (i.e. snapchat) (6)
O I don't pay attention to the news (7)

Q10 Please indicate how often you use Facebook.
O Never (1)
O Less than once a week (2)
O More than once a week but less than daily (3)
Oaily (4)
O Hourly (5)
O More than once per hour (6)
Q11 Please indicate how often you use News websites (i.e. The New York Times, HuffPost, BBC, etc.)
BBC, etc.)
BBC, etc.) Never (1)
BBC, etc.) Never (1) Less than once a week (2)
BBC, etc.) Never (1) Less than once a week (2) More than once a week but less than daily (3)
BBC, etc.) Never (1) Less than once a week (2) More than once a week but less than daily (3) Daily (4)

Q12 Please indicate how often you post on social media (i.e updating a status, sharing content commenting on posts, etc)	,
O Never (1)	
C Less than once a week (2)	
O More than once a week but less than daily (3)	
O Daily (4)	
O Hourly (5)	
O More than once per hour (6)	
Q13 How many news websites do you follow online? (i.e. CNN, BBC, DailyMail, Star, Fox, 7	Γhe
Q13 How many news websites do you follow online? (i.e. CNN, BBC, DailyMail, Star, Fox, New York Times, etc)	Γhe
	Γhe
New York Times, etc)	Γhe
New York Times, etc) O 0 (1)	Гһе
New York Times, etc) 0 (1) 1 (2)	Γhe
New York Times, etc) 0 (1) 1 (2) 2 (3)	Γhe
New York Times, etc) 0 (1) 1 (2) 2 (3) 3 (4)	Γhe
New York Times, etc) 0 (1) 1 (2) 2 (3) 3 (4) 4 (5)	Γhe

Q14 How many news sites do you follow that are based on specific topics (i.e. global warming, veganism, politics, celebrities/entertainment, health, education, sports etc.)
O 0 (1)
O 1 (2)
O 2 (3)
O ₃ (4)
O 4 (5)
○ 5 or more (6)
Q15 Would you say you have strong opinions about the news you read?
O Strongly disagree (1)
O Disagree (2)
O Agree (3)
O Strongly agree (4)
Display This Question:
If Would you say you have strong opinions about the news you read? = Strongly agree And Would you say you have strong opinions about the news you read? = Agree
Tha would you say you have strong opinions about the news you read: — Agree

Q16 How often to do you read about these news/topics of interest?
O Never (1)
O Less than once a week (2)
O More than once a week but less than daily (3)
O Daily (4)
O Hourly (5)
O More than once per hour (6)
Q17 Do you receive news posts from your Facebook "friends"/"followers"?
O Never (1)
O Less than one a week (2)
O More than one a week but less than daily (3)
O Daily (4)
O Hourly (5)
O More than one per hour (6)
Q18 Are you a member of any online discussion groups or forums?
O Yes (1)
O I am not sure (2)
O No (3)

Display This Question: If Are you a member of any online discussion groups or forums? = Yes
Q19 How often do you post in the discussion group?
O Never (1)
Once a month (2)
O More than once a month (3)
Once a week (4)
O Multiple times a week (5)
Once a day (6)
O More than once a day (7)
Q20 Would you say the types of news that show up on your Facebook page are similar?

Display This Question:

O No (3)

O Yes (1)

O Sometimes (2)

If Would you say the types of news that show up on your Facebook page are similar? = No

Q21 Would you say you get a good variety of news exposure on Facebook?
○ Yes (1)
O Sometimes (2)
O No (3)
Q22 How often do you see news on Facebook about similar topics or issues?
Never - my Facebook is always showing me different news/content (1)
O Sometimes, but not often - my Facebook usually shows me a variety of news/content (2)
O About half the time - I have about 50% of the same types of news and 50% new content (3)
O Most of the time - my Facebook usually shows me similar news/content (4)
O Always - my Facebook is always showing me similar news/content (5)
End of Block: Social media use and selection of online news
Start of Block: Trust and facticity
Q23 Please indicate if you believe the news is trustworthy/factual?
O Never (1)
O Sometimes (2)
O About half the time (3)
O Most of the time (4)
O Always (5)

Q24 How factual/trustworthy would you say your Facebook news is?
O Never trustworthy/factual (1)
O Somewhat trustworthy/factual (2)
Trustworthy/factual about half the time (3)
Trustworthy/factual most of the time (4)
○ Always trustworthy/factual (5)
Q25 Do you think online news is fake?
O Never (1)
O Sometimes (2)
About half the time (3)
O Most of the time (4)
O Always (5)

Q26 Does the prevalence of 'fake news' make you more incline to question the messages or facts presented within a news story?
O Never (1)
O Sometimes (2)
About half the time (3)
O Most of the time (4)
O Always (5)
Q27 How likely are you to adjust your opinion on a topic based on how it is presented in the news? (i.e. "I see news about climate change and believe more/less that it is happening")
C Extremely unlikely (1)
O Somewhat unlikely (2)
O Neither likely or unlikely (3)
O Somewhat likely (4)
Extremely likely (5)
Q28 Are you more likely to read news shared by a "friend"/"follower" online?
O No (1)
O Sometimes (2)
○ Yes (3)

Q29 How trustworthy/factual do you think the news that comes from your "friends"/"followers" online is?
O Not trustworthy at all (1)
O Somewhat trustworthy (2)
O Very trustworthy (3)
O Unsure (4)
Q30 Do your beliefs/position about a topic get stronger when you see related news online that supports your stance? Definitely not (1) Probably not (2) Might or might not (3) Probably yes (4) Definitely yes (5)

Q31 Do your beliefs/position about a topic get weaker when you see related news online that does not support your stance?
O Definitely not (1)
O Probably not (2)
O Might or might not (3)
O Probably yes (4)
O Definitely yes (5)
Q32 Do your beliefs about a topic change when you see your "friends"/"followers" posting related news?
O Never (1)
O Sometimes (2)
O About half the time (3)
O Most of the time (4)
O Always (5)
End of Block: Trust and facticity

Start of Block: Motivation for commenting

Q33 How often do you participate on online news (i.e. liking, sharing, commenting)
O Never (1)
C Less than once a week (2)
O More than once a week but less than daily (3)
O Daily (4)
O More than once per day (5)
Q34 How often do you read the comments on online news/posts?
O Never (1)
C Less than once a week (2)
O More than once a week but less than daily (3)
Oaily (4)
O More than once per day (5)
Q35 How often do you comment on online news/posts?
O Never (1)
O Less than once a week (2)
O More than once a week but less than daily (3)
O Daily (4)
O More than once per day (5)

	_	iestion:

If How often do you comment on online news/posts? != Never

Q36 Please indicate which online service you are more inclined to comment on.
○ Facebook (1)
News site (2)
O Twitter (3)
O Instagram (4)
I likely will not comment either way (5)
Q37 Please indicate the option that best reflects your news consumption and commenting behavior.
I always read the whole news story before commenting (1)
I usually read the whole news story before commenting (2)
I read some of the story before commenting (3)
I usually just read the headline before commenting (4)
I don't read the story, I only read the headline before commenting (5)
I don't comment (6)
O This does not apply to me (7)

Q38 Are you more likely to comment on posts from your "friends"/"followers" online?
O Definitely not (1)
O Probably not (2)
O Probably yes (3)
O Definitely yes (4)
O This does not apply to me (5)
Q39 Would you refrain from commenting online because of the fear of repercussions?
O No, I would still voice my opinion (1)
O Maybe, but it would depend on the topic and how strongly I feel about it (2)
O Yes I would refrain, I don't want any repercussions (3)
Q40 What makes you want to comment on online news/posts? Please indicate one or more motivators/triggers (i.e. specific hot topic issues, desire to voice your opinion, controversy, etc.).

Q41 What ele	ements of the news story motivate you to comment online? Select all that apply.
	Proximity to you (how close the topic is to you geographical location, culture, etc) (1)
	How controversial the story is (2)
	Reach of the story (number of people affected) (3)
	Damage from the story (negative consequences) (4)
	Prominence/influence of the people involved (5)
	Unexpectedness of the story (6)
	Entertainment (I like to comment in my past time, or I find commenting relaxing) (8)
	Fact-checking (I comment to check the facts of the news story) (9)
	Other, please specify (10)

Q42 What elements of the comments motivate you to participate in the discussion? Select all that apply.
Aggression (people were being aggressive in the comments, or I wanted to respond to a aggressive comment) (1)
Controversy (people were discussing a controversial topic/issue, or I wanted to discuss a controversial topic/issue) (2)
Personalization (wanted to add a comment about my personal experience or expertise on a topic) (3)
Humor (wanted to add in some humor, or respond to other humorous comments) (4)
Simplification (wanted to reduce the complexity of the issue and explain it more clearly, or I wanted someone else to simplify the topic) (5)
Negativity (I was motivated by my negative emotions toward the topics/discussion, or by the negativity within the comments) (6)
Unexpectedness (I was surprised by a comment that was made and therefore motivated to respond) (7)
Other, please specify (8)

Q43 Which of apply.	f these would you say represents you motivations to comment best? Select all that
	I want to educate others, ask and answer questions, and show my expertise on a topic (1)
	I want to pass time and find reading comments and commenting online entertaining (2)
	I want to interact with others and comment as a way to socialize (3)
	I want to build my self-confidence by showing others what I know (4)
	I want to change peoples minds on a topic (nonconformity) (5)
	This does not apply to me (6)
Q44 If you cobelief in the to	omment on a post that is inline with your views/beliefs, does it strengthen your opic?
O Never	(1)
O Someti	imes, but not always (2)
O Maybe	e, but it depends on the topic (3)
O Most o	of the time (4)
O Alway	s (5)
O This do	pes not apply to me (6)

view?
O Never (1)
O Sometimes, but not always (2)
O Maybe, but it depends on the topic (3)
O Most of the time (4)
O Always (5)
O This does not apply to me (6)
Q46 How much would you say your exposure to certain news topics/issues relates to your motivations to comment online? (i.e. "I see news about global warming a lot so I am more likely to comment on news about global warming")
O None at all (1)
O A little (2)
O A moderate amount (3)
O A lot (4)
O A great deal (5)
End of Block: Motivation for commenting
Start of Block: Debrief
Q66 DEBRIEFING UNIVERSITY OF LETHBRIDGE, FACULTY OF EDUCATION PROJECT SUMMARY (REB#) Investigating Individuals Motivations to Comment on Social Media News Student Researcher: Sydney Esselmont (Master's Student)

Supervisor:

Thank you for participating in our study! We hope that you found your experience informative and enjoyable. At the beginning of the study, we told you that more information about our research would be provided to you at the end of the session. Please take the time to read the information in this form to find out more about our goals and objectives.

Please print this form or save a copy of it for your reference.

Overall, this study aimed to look at the ways individuals use social media to access news, their perceptions about the homogeneity and facticity of their news exposures, and how their exposure to online news, and news comments, influence their beliefs about a topic. From this, individual's motivations to comment online were investigated in the light of the changes within online news and the previous hypothesized contributing factors in the literature.

Given the raise in mass media as a form of news consumption, gaining more information about this area of research could help to inform the public about the various effects online news and users comments have on their thought processes. Since commenting has become one of the most popular forms of user interaction online, it is valuable to understand what is motivating people to comment online. This is because these publicly stated opinions seems to greatly affect others perceptions of public opinion, societal issues, and their construction of reality more generally.

There were no hypotheses or predictions made prior to the study, as this research is highly novel and exploratory. Thus, there was no concealment of specific research hypotheses for the purposed of obtaining certain information.

There were also no foreseeable risks involved in participating in this study. Additionally, this study should not provoke feelings of distress, inconvenience, psychological or social discomforts, fatigue, or physical safety issues. Although this project anticipates no risks or discomforts, if for any reason participants feel distressed or in need of counselling services during or after the completion of this study, please feel free to call the 24 mental health hotline, Hope for Wellness Help Line, at 1 (855) 242-3310, or call the 24 hour Hope line at 1(855) 298-2659.

This project has been reviewed and approved by the University of Lethbridge Human Subject Research Committee (REB #). If you feel you have not been treated per the descriptions in the consent form, or your rights as a participant in research have been violated during this project, you may contact the Office of Research Ethics, University of Lethbridge (Phone: 403-329-2747 or Email: research.services@uleth.ca).

If you have questions at any time about the study or the procedures (or you experience adverse effects because of participating in this study), you may contact the primary researcher Sydney Esselmont, email sydney.esselmont@uleth.ca.

Thank you again for participating in our study! We ask that you please not share the details of this study with your peers until the end of the study and after the feedback has been released, as

they may be future participants.

End of Block: Debrief