

The Influence of Social Media on Undergraduate Students' Perceptions of Reality: *Through the Theoretical Perspective of Groupthink*

Titi Huynh¹, Kristen Kostuch¹, Mya Martorano¹, Olivia McMurray¹, and Victoria Scimeca¹

Abstract

Most literature places heavy emphasis on social media user's agency over the interactions they have on various websites. However, many do not acknowledge the way social media platforms have been curated to influence user's daily life and perceptions of reality. Within our study, the way social media platforms impede individuals' perspectives of reality has proven to shift this agency and how one's perception of reality is impeded through the psychological longingness to conform and associate with specific groups, as well as groupthink. We conducted an online anonymous survey through Limesurvey that consisted of 20-30 open and closed ended questions. Our research aimed to gain an understanding of how undergraduate students conform to a certain behaviour through social media. We found that social media does have an impact on how undergraduate students perceive reality. This can be seen through portrayals of body image and self-inadequacy. With increased social media use, we found that individuals are more likely to engage in groupthink. We have concluded that social media is extremely pervasive in our behaviours and the construction of individual ideologies. Thus, proving our hypothesis that undergraduate students find themselves following social media trends, norms, and beliefs available to them through online networking sites.

Introduction

Social media has grown to play a major role in today's society. Individuals rely on social media within several facets of their life. Some of those facets include the news, reviews on products and services, and interaction with others on a social platform. Because of this reliance, the topic of social media is an extremely complex and interesting topic to study. Our group was very eager to study how exactly social media has influence on daily life and their perception of these realities outside of social media. Our research is focused on how social media platforms can impede an individual's perception of reality and their thought processes to conform and associate themselves within different social groups. The demographic of interest is Undergraduate students at McMaster University.

The purpose of our study is to explore the way social media has an effect on our decision to conform on social media and in real life, along with the explanation behind the groups that we choose to associate with online and in reality. It is essential to find out who, what, when, why and how social media curation contributes to our false sense of

¹ Undergraduate Student, Honours Social Psychology Program, Faculty of Social Sciences, McMaster University, Hamilton, Ontario, Canada.

reality in order to help our readers understand the extent to which groups have influence on our individual behaviour. We address many different perspectives surrounding the topic. First, we present the theories that we will use as our framework for our research. Next, we state the problem that our research addresses directly, the purpose of conducting this research, as well as a list of our research questions. The following section includes our literature review in an effort to demonstrate what research has been completed on this topic as the gaps within previous research is revealed. Succeeding the literature review is the methodology of our research and an outline of the steps taken during our research process. We then move into possible limitations that could have occurred through the conducting of our research and significant insights that our research provides.

Statement of the Problem and Purpose of the Research

The recognized problem that has led us to our research is that our world is becoming increasingly more divided due to the overdependence of social media and is subsequently creating a hypersensitive and segregated society.

The purpose of this research is to further understand how our innate desire to socialize is used as a tool on social media platforms to reinforce a false sense of reality, which is increasingly dividing individuals not only in the virtual world, but in all aspects of social life.

Literature Review

With the lucrative advances in technology and the current situation we are facing with COVID-19, there appears to be a dependence on using our devices, whether it is for academic, work, or leisure purposes. With such high engagement, our devices and online personas are now a large part of our lives. As such, it is intriguing to observe how social media plays an influential role in our everyday lives, in terms of shaping our sense of reality, beliefs and behaviours. Accordingly, our research is focused on how social media platforms can impact an individual's behaviours, both in-person and online, and views on reality. The purpose of the study is to learn more about how social media is impacting our opinions and views on societal issues and norms, through the groupthink perspective. This literature review aims to view the current research present on social media, the influence on behaviours, as well as how it may promote more divided beliefs and values. The findings of the literature review will be done with an objective view and will be utilized to either support or contradict our research.

Social Media

Social media is a topic of growing interest as it is incorporated into numerous facets of daily life for the majority of the world population (Perrin, 2015). For instance, a study on social media usage between the years of 2005-2015 discovered that approximately 65% of American adults are now engaging with social networking sites (Perrin, 2015, p. 2). This dramatic spike in usage is responsible for affecting global communication, politics, parenting, stress levels and dating habits (Perrin, 2015). Additionally, a study on the development of community through avenues such as social media was researched (Gruzd & Haythornthwaite, 2013). The conclusions drawn from this study outlined the significance that a few core people have in forming a sustainable online network due to their own connections (Gruzd & Haythornthwaite, 2013). Social media has also been

explored for its ability to predict the onset of mental illnesses, specifically depression (Choudhury et al., 2013). The logic of social media, in terms of how it has altered human interaction, has also been identified as a concern (Dijck & Poell, 2013). It is understood that social media has deeply rooted itself into the routines of its users, changing the logic of how one functions (Dijck & Poell, 2013).

All these research study findings reiterate that social media is a diverse area of discussion that can be linked to multiple societal components. The sources presented are interconnected in the understanding that social media is a growing source of communication and information for individuals. On the contrary, they differ by using micro and macro frameworks depending on whether or not the focus of the study is sociological or psychological. Social media has explored the areas of mental health, interpersonal relations, prominence, and global affectability. However, the focus of how social media affects one's behaviour and perceptions from the lens of a group perspective, such as groupthink, has not yet been considered. Therefore, the development of this area of study can be further elaborated on. The significance of one's actions subconsciously affecting another due to group conformity is a gap in the research that should be studied.

It has been found that as technologies advance, social media's relevance also increases as well. The impact that social media can have on an individual's ability to interact with others in the physical world is being hindered by an increased virtual presence (Perrin, 2015). It has also been discovered that social media has many positive impacts but also can be linked with just as many negative ones. The positives include, global communications, convenience to knowledge, and overall accessibility. On the contrary, the negatives of social media recognize a decline in interpersonal skills, isolation and an increased level of stress and mental health concerns (Choudhury et al., 2013). Moreover, social media is a fluid topic that is responsible for a variety of human occurrences and patterns (Dijck & Poell, 2013).

Groupthink

Groupthink is the theoretical perspective that understands the significance of group conformity and the subsequent actions that an individual may take in order to be psychologically and physically consistent within a certain group (Janis, 1971). This theory has been utilized in the field of economics to understand willful blindness regarding groups and markets (Bénabou, 2013). Within this area of study, hierarchies within groups and institutions are recognized as playing a major impact on groupthink (Bénabou, 2013). A study was also conducted on groupthink in a government setting (Hart, 1990). This research identified that policy failure is often caused by groupthink as it creates errors in decisions pertaining to a group (Hart, 1990). Similarly, groupthink has been linked as a cause for unethical behaviour within various organizations (Sims, 1992). Symptoms of groupthink, such as arrogance and loyalty, have been connected to this notion of unethical behaviour (Sims, 1992). A study conducted on foreign policymaking can be recognized to have influence by groupthink (Hart et al., 1997), It is identified that political group dynamics are greatly affected by the need for cohesion, thus, enacting groupthink (Hart et al., 1997).

The literature is extremely similar in its approach to groupthink and recognizes group conformity as a negative solution. It can be identified that in political and economic based

situations where decisions have to be made, groupthink is seen as a method that is highly disapproved. The literature varies as well depending on the conclusions that are drawn as a result of groupthink. For instance, a foreign-policy decision being affected by groupthink alters the lives of numerous individuals rather than a smaller macro decision, such as a specific business organization. Subsequently, groupthink has been examined in fields where decisions are crucial to the success of a company or larger organization, such as a country, but has limited research conducted on the impact of everyday choices being affected by group influence. Although the decisions that are being made are not as crucial, they are still important to study as individual behaviours are greatly influenced by groupthink.

The theory of groupthink is becoming increasingly relevant as individuals are wanting to avoid confrontation, conflicts, or debate. This can be recognized when groups are in the physical presence of others, rather than through virtual communications. It has not yet been thoroughly researched how groupthink links to an individuals' social media presence and then translates into daily life. Instead, groupthink is understood from the perspective of larger corporations where their choices greatly affect others. Furthermore, groupthink is a framework that is emerging in many facets of societal interactions and understanding its benefits and consequences is crucial if one's goal is to avoid this effect.

Societal Norms and Beliefs

Social media has become one of the biggest platforms that influence societal norms and beliefs within individuals. Our opinions and behaviours on many topics, such as political views, can be heavily influenced by social media. For instance, research that was conducted by Valenzuela (2013) looked at the several ways that social media has an influence on our collective actions and behaviours by providing us with information and news on political topics that aren't available to us daily. This study examined three different mechanisms which included information, expression, and activism, that social media including Facebook, Twitter and YouTube have an influence on the increased political activity online (Valenzuela, 2013). Information on topics such as political views has become so easily accessible to anyone that has access to a computer or phone that has an internet connection. Due to social media being so easily accessed, this has led us to depend on these platforms as our primary new sources for information (Bail, 2018). Individuals are constantly using these platforms as a space to express their opinions, find their beliefs and values, and to join in communications with others that either have or do not have the same opinions and views as they do. This was especially true within Valenzuela's (2013) study finding which indicated that the more frequent use of social media platforms within individuals, the more individuals would use social media for information, opinion expression, and joining social causes. These findings suggest that the more an individual uses a social media platform, the more likely they are to depend on social media for everything in their daily life.

Similarly, Bail's (2018) work on opposing views on social media had some interesting insights and findings. Bail's (2018) study addressed the mounting concern of social media sites and their influences on political polarization through the creation of "echo chambers," which can hold individuals from opposing views about current political events that are taking place (Bail, 2018). This study conducted an experiment, through a survey, that

created virtual contact between members of society and opinion leaders from opposing political parties on social media platforms (Bail, 2018). Bail's (2018) study aimed to change political ideologies and collected information about other political attitudes, use of social, and demographics. Having easy contact with different opinion leaders or parties' members can have a heavy influence on the opinions and views of certain parties and topics.

Information that individuals find on social media can be mobilized and used in many different ways. Lemert (1981) argued that mobilizing information can occur in three different forms: identificational, locational, and tactical (Valenzuela, 2013). These forms can cue individuals to act and express attitudes in a certain way through social media. Bail's (2018) study is relevant to those cues as his survey found that democrats online had exhibited slightly more liberal attitudes post treatment that had influences on the increasing size of level of compliance, whereas, treated republicans had exhibited substantially conservative views posttreatment (Bail, 2018). These findings show that after completing the survey, these parties had changed and exhibited different behaviours and attitudes online than they did in person.

Although both Bail (2018) and Valenzuela (2013) studies have shown that social media has some influence on individuals' political views and behaviours online, both studies have some limitations and gaps in their research. For both studies, it is unknown whether the findings are generalizable or applicable to other populations within social media platforms (Bail, 2018). Behaviours and attitudes on social media can vary depending on the platform and topic, therefore, these findings may not apply to other topics than political views online. Another limitation that each study faces is that political behaviour is a slippery concept to grasp (Valenzuela, 2013). Political behaviour and views can vary from person to person, therefore, it is difficult to estimate how every individual is going to view the same topic. A gap in Bail (2018) and Valenzuela (2013) research was the potential bleed-over between the different social media activities. An individual can have one behaviour or action on a certain social media platform that can bleed over into another social media platform.

Social media continues to grow as a platform for information and expression between individuals online. Individuals use these platforms as a way of expressing their opinions, sharing the information they know and gain information on certain topics, and to join groups and conversations about different topics online. The influence that social media has on an individual can vary from person to person and can have a different effect on their behaviours and actions that they demonstrate online and in everyday daily life.

Groupthink Impacting Behaviours

Groupthink involves a form of conformity and cohesion and can affect how people behave. Forsyth (2020) explains that groupthink creates groups who have similar attitudes, creating pressures to conform. Because groups tend to weed out those that disagree with their ideas, they become firm in their similar ideals that have developed regardless if they may seem ridiculous, they are reasonable to them (Forsyth, 2020; Valenzuela, 2013). Once members feel like they have found a community, they will engage in more opinion expression and with others who agree with them in their group and their behaviours are validated (Forsyth, 2020 and Valenzuela, 2013).

Djafarova & Rushworth (2017) investigated how behaviour can be impacted due to groupthink through purchasing habits. Celebrities have a large impact on people's beliefs and ways of thinking, which can lead to various behaviours being performed collectively by the members of their following (Djafarova, & Rushworth, 2017; Forsyth, 2020; Valenzuela, 2013). Djafarova & Rushworth's (2017) article discusses how celebrities use the groupthink behaviours of their followers to influence their ideas surrounding what products to buy. Those that have lower self-esteem and less of a voice are more likely to follow those who do, feeling a need to conform to the shared beliefs and attitudes because of the strong influence of the leader (Djafarova, & Rushworth, 2017; Forsyth, 2020).

Political leaders can influence what social causes groups speak about; celebrities can influence what products to purchase or company to endorse; and any other strong leader, famous or not, can influence the group to engage in similar behaviours (Djafarova, & Rushworth, 2017; Forsyth, 2020; Valenzuela, 2013). The norms and behaviours that are seen as reasonable are created by these leaders, and they should be the ones held accountable if the actions turn out to be harmful or irrational (Forsyth, 2020).

When a member of another group, or even one within the group, exhibits behaviours that are different from that of the group, they are shunned or ridiculed (Forsyth, 2020). The article by Forsyth (2020) explains this through the current anti-mask protesters and groups during the COVID-19 Pandemic. Their behaviours of refusing to wear a mask are supported by their shared idea that they are protecting their rights and the masks do not actually protect them from any harm. Although this, according to general knowledge and science, is proven to be false, their behaviours are fortified through their support within their group of people who share the same ideas (Forsyth, 2020). This signals groupthink for many reasons, but specifically that they are not thinking clearly and are acting as if they are the ones who are correct (Forsyth, 2020).

Groups allow people to find others who share their own ideas, leading to engaging in behaviours pertaining to those ideas. The findings from these research studies demonstrate how people who belong to a group are susceptible to conforming and enacting on the behaviours that the group believes are reasonable.

Groupthink and Social Media

Due to major technological advances, one's ability to communicate with others is easier than ever before. Regardless of location, people can spontaneously connect with millions of others and interact through their personal devices, websites, and virtual communities. Despite the countless advantages of this technological advancement, a few shortcomings exist. Since one's ability to access groups is relatively easy, users contribute to the issue of groupthink more frequently today than in the past. Groupthink is a term which refers to the progression of a group to make incorrect decisions, or false claims based on each group member's tendency to conform to what they consider the group's beliefs/values to be (Kanthawong et al., 2011). Currently, there is limited research regarding groupthink within modern social media platforms, however, previous literature does consider its effects.

According to Kanthawong et al. (2011), online social networking sites target users with specific characteristics and group them based on similarity, allowing users to find others who have similar beliefs and follow similar pages/accounts. In doing this, groupthink symptoms are more likely to occur, therefore increasing the possibility of groupthink

developing. These symptoms include the illusion of invulnerability, rationalization, morality, stereotypical thinking, mind guards, self-censorship, the illusion of unanimity as well as the tendency to call out members of the group with unpopular opinions (Kanthawong et al., 2011). Kanthawong et al. (2011) acknowledged groupthink and its existence within social media platforms, however, the research only scratches the surface of this relationship as it analyzes groupthink exclusively from a macro-perspective, mentioning solely political and government examples of groupthink occurrences. Researching the occurrence of groupthink from a micro-level is important as the progression of groupthink occurs in a bottom-up direction. Failure to indicate the presence of groupthink on a micro-level implies ignorance towards how groupthink originated in the first place. However, modern research on social media has touched upon specific symptoms of groupthink at a micro-level.

For instance, a study conducted by Tsikerdeakis (2013) considered the effects of unanimity on an online webpage called "Wikipedia". Within this study, Tsikerdeakis (2013) discovered that anonymity, as well as perceived anonymity, correlates with an individual's likelihood of conforming. In other words, anonymous individuals are less likely to conform than those whose identity is visible alongside their posts. Due to this, a relationship between personal risk and conformity appears to exist. Therefore, it is appropriate to suggest the contrary, that an individual whose identity is known is exposed to a higher level of personal risk and thus more likely to conform to the group. Although Tsikerdeakis (2013) does not directly mention groupthink, his research can be applied to the theory as the foundation of the theory is present on both micro and macro levels. His findings can also help further understand the extent to which groupthink occurs on social media platforms, which were created specifically for group interaction (Tsikerdeakis, 2013). Wikipedia's main purpose is to spread past information, if symptoms of groupthink are seen to be present in such a setting, taking this research and applying it to modern platforms whose purpose is to create groups, further understanding of how groupthink affects individual perception can be explained.

McKeever (2008) investigates the methods used to outline groupthink, challenges their validity, and seeks to uncover deficits that exist when groupthink is present. McKeever (2008) argues that social media sites, such as Facebook, provide accuracy within the analysis of groupthink as social networking sites are not governed under the same laws as the traditional social organizations used in the past to study groupthink. In saying this, McKeever (2008) uses social networking sites as a means to tackle groupthink, attempting to piece together a clinical measurement for its progression using a bottom-up approach. Additionally, McKeever (2008) recognizes that the existence of groupthink within social media platforms not only impacts individuals while using social media, but also when the social media is not necessarily present. The thoughts and beliefs that are created on these platforms are generalized to influence our everyday lives.

Generally, most research approaches groupthink with an "either-or" attitude, which is not effective in determining preventative measures. Moving forward, research must acknowledge the relationship that exists between micro-level, individualistic progressions of groupthink and macro-level, societal progressions of groupthink within the context of social media in order to tackle the growing issue of groupthink in society today.

Limitations in Existing Literature

Research within the field of social media and groupthink is quite extensive, especially now with the heavy dependence on the digital space, however, there are still gaps within the research. Within the field of social media, there seems to be a lack of focus on the mezzo level perspectives and how social media acts as a larger institution that has an influential role in individuals. Research has been focused primarily on micro and/or macro level perspectives exclusively. This lack of exploration within the mezzo level is constricting the research being done on social media, as it does not look at the holistic influence social media has. Regarding the literature on groupthink, several studies are biased and have marked groupthink as a negative theory (Dijck & Poell, 2013). This may also be the reality of the theory, as it has only been studied within negative situations, however, there should still be an exploration of how groupthink can be utilized in a positive situation. For example, having more research done on groupthink in advocacy work.

The field between social media and groupthink is a fairly new field of research, there is still a lot to explore. Overall, there are common gaps within the literature, such as the impact on everyday behaviours, the focus within the age group of Millennials to Gen Alpha, and lastly, a more in-depth connection between groupthink and social media. Modern-day research has focused on groupthink in situations, such as political situations, mental health, consumerism habits, etc., however, there is no focus on everyday behaviours and thoughts. As social media is so readily available, and there is an increase in engagement and usage, it would be important to see how these platforms are affecting our day-to-day behaviours, outside of certain situations. It is the Millennials who were the first generation to be exposed and fostered social media at an impressionable age. Due to this fact, it would be important to see how social media potentially impacts the values and beliefs of Millennials to Gen Alpha, as they have been the most exposed to social media. Lastly, as there is a lack of research on how impactful social media platforms are, there are gaps in detailed research on groupthink and online platforms. As current research has shown, groupthink is influential on individuals in-person behaviours, however, not much is known surrounding online behaviour. The question of online conformity, and how platforms can elevate polarizing views is not well-studied. As such, this is why we are conducting our research, to fill these gaps. Looking to further understand how our innate desire to socialize is used as a tool on social media platforms to reinforce a false sense of reality which is increasingly dividing individuals not only in the virtual world, but in all aspects of social life.

Summary

With the rise of social media in our society, there has been a large fascination within the field of digital space. Studies have shown that there has been a recent spike in using social media, and this increased use has been affecting multiple facets. Facets such as global communication, politics, stress levels and dating habits (Perrin, 2015). With the advancement of technology, social media's relevance is increasing and does not seem to be disappearing anytime soon.

Alongside this knowledge, it is important to view how these platforms are impacting various societal components. When looking at individuals' behaviours, the theory of groupthink is prevalent. Originated by Irving L. Janis, 1982 research has recognized groupthink and group conformity as a negative solution. Research has stated that utilizing

groupthink in certain situations can be seen as highly disapproving and even considered unethical behaviour. For example, using groupthink in foreign-policy decisions, as these settlements impact numerous lives, having them altered by groupthink is disreputable. As such, the literature has concluded that groupthink is a very influential and powerful tool to persuade and shape individuals into conforming to group norms. There is a broad range of research applying groupthink to various situations, such as consumerism habits, mental health/wellbeing, and new current contexts such as COVID-19. With that being said, there seems to be a large fascination within the political field, and how political leaders may use groupthink to influence individuals to favour their views. Furthermore, leaders are trying to advertise social media as an accurate source of information, which has been known as another form of bias and conforming behaviour.

As research has concluded the powerful impact groupthink has on individuals and their beliefs and values, it was only a matter of time when the research was going to connect groupthink to social media. Present research looking at online group behaviours, the influence of anonymity and how social media algorithms are programmed in a way to reinforce your beliefs; making confined and like-minded communities. Overall, the research within this field is quite extensive and is constantly growing, however, there are still gaps. For instance, the lack of research on social media's impact on day-to-day behaviours, not directing the research towards Millennials - Gen Alpha, and inadequate detailed research on groupthink and social media. As such, looking to research how social media influences undergraduate students' perceptions of reality, through a groupthink perspective, is a study that can help advance future research.

Theory

The chosen theoretical framework that is the main focus of our study is groupthink. Groupthink is the result of flawed thinking within a group setting where individuals fail to make decisions based on their own logic and instead conform to alternative methods of action (Delamater & Collett, 2019, p. 517; Janis, 1971). In other words, members of the group disregard the exploration and critical analysis of other thought processes out of fear that they might disrupt the homogeneity and harmony of the group (Delamater & Collett, 2019). It is often concluded that when groupthink is identified in a group setting, the end result is generally a poor decision (Delamater & Collett, 2019).

Within the framework of groupthink, there are various symptoms that can be studied as the cause for this phenomenon. Belongingness and majority are two significant ideologies that are focused on within our study. Belongingness is the desire that individuals search for in terms of group membership (Delamater & Collett, 2019, p. 126). It is often recognized that an individual will do whatever is necessary to achieve this sensation within the in-group. Similarly, majority focuses on the size of the group. Depending on this factor, the need for group members to be a part of the larger majority of people is desired. Group members will seek to conform to the norms of the group and avoid any encounter with isolation.

Additional concepts that are addressed are group norms, conformity and influence. Norms are defined as an informal rule that individuals within a group are expected to follow in particular circumstances (Delamater & Collett, 2019). It is often established within group settings what the norms are and how they will regulate the functionality of

the group and their activities (Delamater & Collett, 2019). Subsequently, the adherence to group norms results in conformity (Delamater & Collett, 2019). Conformity within a group setting is the result of individual members feeling dependent on the majority for validation regarding their own understanding of the social world and their opinions (Delamater & Collett, 2019).

Furthermore, the theoretical framework of groupthink and group norms plays an important factor in understanding how social media impacts the perceptions, actions and behaviours of society. Subsequently, these theories assist in recognizing how undergraduate students are impacted by social media in their everyday exchanges.

There are specific types of influence that are analyzed in our paper, including informational influence and normative influence. Informational influence is when group members accept information given to them by others at face value and do not question its validity (Delamater & Collett, 2019, p. 485; Sheriff, 1935). This type of influence commonly occurs when members are faced with uncertainty or they are attempting to find a solution for an unfamiliar problem (Delamater & Collett, 2019). A prime example of informational influence is when an individual is in an uncertain situation, they often look towards others who might be seen as experts in that area to see how they should proceed without appearing outside of the norm (Delamater & Collett, 2019). Unlike informational influence, normative influence plays a key role in conformity. Normative influence is when an individual conforms to the norms held by others within a group setting, with the intentions of receiving the social rewards or avoiding punishments that are dependent on meeting certain expectations (Asch, 1951; Delamater & Collett, 2019, p. 484). A significant reward in normative influence is being accepted and favoured by others (Delamater & Collett, 2019). It has been observed that normative influence has a greater impact when members respond without anonymity (Delamater & Collett, 2019).

When observing behaviors and values people inhibit, the need to conform to a group or a societal norm tends to be a large driving factor. There are a lot of overlapping concepts within conformity and groupthink, however, conformity has specific sub-theories which observe certain situations or environments. One of those being the concept of the majority influence created by Asch (1951), and information influence, coined by Sheriff (1935). Within our study, we focus on the concept of the majority influence from Asch (1951; 1956) and the concept of informational influence from Sheriff (1935).

Research by Asch (1951), through his conformity experiment, observed the effect of normative influence on individuals in a group setting. The key principles within majority influence, according to Asch (1951), refer to people conforming to group behavior for many reasons; wanting to fit in with the group (normative influence) and belief that the group is better informed than they are (informational influence). These principles are reasonings and explanations on why individuals may feel inclined to conform to a group. After Asch's experiment in 1951, he furthered his experiments and looked at how the size of the majority played a role in conformity. In his later study, when there were around 3-4 confederates present, the participants would conform, as the majority of the group were all saying the same thing. It seemed as though the size of the group played a role in the likelihood of conforming. Asch (1956) concluded that the bigger the majority group, the higher the likelihood people conformed but only up to a certain point. If the group ended up getting too large (5+) the size may not be as influential, but would still influence individuals to conform.

Before Asch's (1951; 1956) work, Sheriff (1935) researched conformity and social influence. Sheriff (1935), however, focused primarily on Informational Influence. According to Sheriff (1935), there are three key principles of informational influence that demonstrates how people conform in group settings. Firstly, when people lack knowledge, they look for guidance within the group. Secondly, when a person is in an ambiguous situation, they socially compare their behaviour to the group. Lastly, internalization often occurs when a person accepts the views of the groups and adopts them as an individual. These key principles emphasize that in situations where there may be differing levels of knowledge and there seems to be shared thoughts, the individual will be likely to conform to the group, especially if the individual is the sole individual with a differing view. It is also important to note that within Sheriff's experiment, if there was at least one other individual who stated an opposing answer to the group, individuals were more likely to stay consistent with their thoughts and beliefs.

When studying and analyzing group behaviors and interactions, Irving L. Janis' (1971) theory on groupthink brings forward the reasoning and root causes for why groups may act or think a certain way. According to Janis (1971), there are eight key principles: invulnerability, rationale, morality, stereotypes, pressure, self-censorship, unanimity, and mind guards. These key principles provide root causes and reasoning behind group behavior and thoughts.

Invulnerability refers to an illusion that provides some degree of reassurance about obvious dangers, which leads individuals to become over-optimistic (Janis, 1971). Therefore preventing them to respond to clear warnings of danger, which can cause irrational and risky behaviors. *Rationale*, according to Janis (1971) goes hand in hand with invulnerability as it shows how groups will ignore warning signs and other forms of negative feedback that may lead members to reconsider their past decisions. This enforces group members to share unanimous thoughts. *Morality* investigates how members of the group will unquestioningly believe and inhabit the groups' morals and values (Janis, 1971). This controlling ideology leads the members to ignore their personal ethics and morals. Within intergroup relations, there are *stereotypes* that portray outgroups as evil, which makes negotiations unattainable (Janis, 1971). This stereotypical ideology forces negative assumptions regarding the outgroup, and therefore enforces passive behaviors. Groupthink exists based on collective group behaviors and ideologies, and they maintain this collective unilateral thinking by enforcing pressure. According to Janis (1971), *pressure* refers to the leader's force on any member who is momentarily expressing doubts about the shared and collective group views and beliefs.

Furthermore, leaders will encourage *self-censorship* to avoid deviating from the collective beliefs (Janis, 1971). This minimizes unique and differing views within the group to maintain cohesion. Unanimity is a key part of groupthink, as group leaders want to express the same ideologies within the group. This urge for cohesion stems from the principle of unanimity. Unanimity is present once self-censorship has been put in place, as silent members are assumed to be in accord with what the group leader is saying. Lastly, the final principle, according to Janis (1971) is the concept of *mind guards*. This principle is put in place to protect the leaders and members from opposing views and information that may contradict or question their shared values and beliefs. Groups who

experience groupthink will try and omit contradictions as much as possible, as they want to maintain unanimity and cohesion in order to portray strength and high power.

The theory of Maslow's (1958) hierarchy of needs is a psychological theory that can aid in explaining "why" individuals partake in groupthink. Within this theory, there is an acknowledgement of fundamental psychological needs which must be fulfilled in order to reach our unique and individual potential (Maslow, 1958; Poston, 2009). Therefore, this theory recognizes social relationships as fundamental in reaching individual potential. The hierarchy begins with basic physiological needs such as food, water, warmth, and rest (Maslow, 1958; Poston, 2009). Following physiological needs, is safety needs (Maslow, 1958; Poston, B., 2009). The middle tier is where the psychological needs exist. These psychological needs include *belonginess and love needs* which is comprised of intimate relationships and friendships (Maslow, 1958; Poston, 2009). Following is one's longing to feel accomplished, which exists within esteem needs (Maslow, 1958; Poston, 2009). The top tier is where self-actualization exists, which indicates that an individual has reached their full potential (Maslow, 1958; Poston, 2009). Within the context of this study, the focus is on Maslow's psychological needs of hierarchy.

Belonging needs are vital in reaching one's full potential and are constantly observable in everyday life. Its presence can increasingly be seen on social media platforms as it is more accessible than ever as constant interaction with others is encouraged. According to Maslow, when this stage begins, socialization becomes a priority to the individual (Maslow, 1958; Poston, 2009). This sense to belong is felt through every stage in life and is focused on the desire to build relationships with others. This desire for relationships includes romantic relationship, mutual friendship and even a longing to have a family, depending on which stage of life one is going through (Maslow, 1958; Poston, 2009). For example, young children need to feel an emotional connection with parents and as teenagers, this connection switches to long for a more socially active peer group (Maslow, 1958; Poston, 2009). Anything that is reinforced, encouraged, or recognized by these social groups determine which type of group the individual internalizes themselves to be (Maslow, 1958; Poston, 2009). As adults, affiliation occurs based on whether or not one is accepted by a group and is influenced by several factors. These factors include education level, family, neighbourhood, and schools (Maslow, 1958; Poston, 2009). Within today's day and age, social media is integrated within each and every one of these factors, which not only influence belongingness but can also affect one's esteem needs (Maslow, 1958; Poston, 2009).

According to Maslow's theory (1958), there are two levels of self-esteem. The first being low-level esteem, which includes individuals who do not see themselves as adequately as they should, and high-level self-esteem where individuals have self-respect and like who they are (Maslow, 1958; Poston, 2009). Individuals within this lower level may not like themselves very much and appear to be critical towards themselves (Maslow, 1958; Poston, 2009). Because of this, an individual with low-level self-esteem may constantly attempt to seek validation and acceptance from the external environment, such as from others within their social life (Maslow, 1958; Poston, 2009). Within this concept, an overlap can be observed between the two psychological needs. Both belongingness and esteem needs can require confirmation from others and are needed to reach one's full potential. With this, the importance of these needs is realised and a

parallel can be drawn between one's social environment, their interpretation of the social environment, and self-adequacy.

Although in the past there has been controversy over the existence of universal psychological needs, human's innate need for competence, autonomy, and relatedness have recently been recognized to play a significant role in attaining psychological and physical well-being (Deci & Ryan 1985, 2000). Current social movement towards psychological health and wellbeing have reinforced its existence. Self-determination theory (SDT) is a theory created in relation to these three universal psychological needs. It proposes that people's interpersonal environments and their individual differences will affect their ability to fulfil their psychological needs (Deci & Ryan, 2000). If these psychological needs are satisfied, an individual can become more identified, integrated, and intrinsically motivated within their life (Deci & Ryan, 2000). This constant interaction with the social environment is either supporting or spoiling their basic psychological needs, which in turn influences their motivation, cognition, and wellbeing (Deci & Ryan, 2000).

Social environment is a key aspect of SDT for many reasons, one being the ability to satisfy or dissatisfy our basic psychological needs. According to SDT, positive feedback enhances intrinsic motivation (Deci et al., 1999). This concept is important when analyzing user perception within social media platforms as many platforms use "likes" as a form of positive feedback. Social media users look towards these "likes" as a type of extrinsic motivation. Thus, according to this theory, social media has the power to influence one's mood, behaviour, and beliefs.

As stated previously, external feedback that affirms competence when accompanied by a sense of autonomy enhances intrinsic motivation (Deci et al., 1999). Therefore, social environments that are preventing the fulfillment of basic needs will lead to either controlled motivation or amotivation. When individuals partake in activities based on the motivation of a tangible reward, their behaviour, over time, becomes contingent on the reward (Deci et al., 1999). Due to this, the source of motivation shifts from internal to external (Deci et al., 1999). This externalization of motivation is internalized, as people naturally consider the values and behaviours that are important to others within their social environment (Deci et al., 1999). However, this can lead people to accept beliefs that are encouraged by their social world, regardless of whether or not these beliefs are correct.

On the contrary, people who are rejecting or controlling will impair internalization, leaving people controlled by external or introjected regulatory processes (Deci et al., 1999). If this is the case, three facilitating factors exist. Firstly, a rationale for the requested behaviour must be given (Deci et al., 1999). This is because the individual has not internalized the beliefs within their social environment. Therefore, they need a logical explanation to behave in a way that they would not normally behave in. Secondly, an acknowledgement of how the behaviour would make others feel (Deci et al., 1999). If the individual believes the requested behaviour will make others feel badly, and the behaviour is seen to be morally wrong, they will not conform to the behaviour. Lastly, by emphasizing the behaviour as a choice (Deci et al., 1999). All three of these factors contribute to internalization of extrinsic motivation and contribute to the likelihood of an individual accepting the values and behaviours being imposed on them.

Theoreticians

Irving Janis, the theorist of groupthink, is a Yale social psychologist who studied at the Chicago School (Calisphere, 2011). His first studies focused on an individual's decision-making regarding topics such as dieting and smoking, before moving on to the theory he is best known for today, groupthink (Calisphere, 2011). Janis (1991) found that groupthink could explain events such as political disasters and tragic decisions that had been made in the past by groups of people (Janis, 1991). The theory itself was derived from the Challenger Shuttle launch tragedy in 1983 (Janis, 1991). Janis (1991) argued that those who died on the Challenger did not make poor decisions on their own, rather they were subjects of groupthink.

We are also looking at belongingness from Abraham Maslow's (1958) hierarchy of needs. He began his research journey when he discovered his interest in psychology and moved to Wisconsin and studied at the University of Wisconsin (Poston, 2009, p. 348). In the 1930's, he had earned his BA, MA, and Ph.D., and then moved to New York and taught full time at Brooklyn College (Poston, 2009, p. 348,). When serving as chair of the Psychology Department at Brandeis in 1951-1961, he met Kurt Goldstein (Poston, 2009, p. 348). Goldstein's development of self-actualization directly inspired Maslow to pursue the idea of humanistic psychology (Poston, 2009, p. 348). His creation of the hierarchy of needs came from his observations and studying of monkey's interactions (Poston, 2009, p. 348). Maslow's approach was directed towards helping people achieve positive outcomes and to be their best selves (GoodTherapy, 2011).

Solomon Asch, whose work we are looking at regarding conformity, was an influential 20th-century psychologist (GoodTherapy, 2011). He received his master's degree and his Ph.D. at Columbia University where he was a mentee of Max Wertheimer (GoodTherapy, 2011). This mentorship influenced his ideas surrounding the gestalt ways of thinking, association, and perception (GoodTherapy, 2011). Asch eventually went on to receive the Fellow of the American Academy of Arts and Science title, which is very prestigious (GoodTherapy, 2011). Asch's contributions to the field of psychology were significant, especially during the 1950s. His studies were impactful to psychology and social psychology while some thought his ideas surrounding impression formation, conformity, and prestige were decidedly controversial (GoodTherapy, 2011). His work involving conformity was a direct inspiration for another well-known psychologist, Stanley Milgram, whose Ph.D. he oversaw (GoodTherapy, 2011). Asch was known for viewing humans as complex creatures and not choosing to look at one aspect of psychology (GoodTherapy, 2011). His studies are still used today and have done a lot for the field.

The last theory we will be looking at, also under conformity, informational influence, was theorized by Muzafer Sheriff. Sheriff was born in Turkey, where he received the majority of his education (Kayaoğlu et al., 2014). After graduation from International College and Istanbul University, he moved to the United States where he attended Harvard University for his master's degree and Ph.D. (Kayaoğlu et al., 2014). He attended school during the great depression, which influenced his ideas surrounding prestige-suggestion (Kayaoğlu et al., 2014). With the supervision of and influence of Gordon Allport, this was his master's thesis (Kayaoğlu et al., 2014). Between his two degrees, Sheriff traveled to Berlin and experienced Nazism come to fruition; much like Asch, he too wanted to study gestalt principles of social perception (Kayaoğlu et al., 2014). Sheriff

was bold in what he stood up for, publicly opposing anti-fascist camps at his university and a discrimination case targeted toward a Jewish student (Kayaoğlu et al., 2014). His social psychological theory focused on the idea that thoughts, goals, and desires are not innate; they are formed in societal functions (Kayaoğlu et al., 2014). He observed that change needs to be from the greater structures, not simply from education (Kayaoğlu et al., 2014).

Another theorist whose theory we will be looking at is Edward L. Deci. He is a macro sociologist who is interested in human motivation; it is through this that he developed self-determination theory (University of Rochester, n.d.). Deci has a Ph.D. from Carnegie-Mellon University and remains as professor emeritus at the University of Rochester (University of Rochester, n.d.). He applies self-determination theory to a multitude of areas, such as mental health, parenting, work, etc. (University of Rochester, n.d.).

Methodology

Our research question is quantitatively based and focuses on gaining an understanding of social experiences on social media and how people conform to a certain norm that is present amongst a desired or dominant group, for example, groupthink (Janis, 1991). Specifically, our research question is *how does social media influence undergraduate student's perceptions of reality?* The research was approved by the McMaster Research Ethics Board (MREB#: 0327). We conducted an online anonymous survey using the McMaster Research Ethics Board approved platform Limesurvey. This survey consisted of approximately 20-30 questions that were a combination of open and closed ended questions. The participants were not required to answer all questions of the survey, and no penalty was made if questions were skipped. Participants' informed consent was not assumed until they pressed submit at the end of the survey. The survey was conducted anonymously, therefore the student investigators were not able to identify any of the participants and be able to correlate the participants to their survey responses.

The psychological risk was very low in this study. The potential risk included feelings of embarrassment, demeanor, and stress by the participant. These feelings may be experienced due to topics such as political views, certain values, behaviours, etc. However, these potential risks posed no risks greater than those in everyday life. Although there were potential psychological risks, the participation in our study was optional and participants could withdraw at any time before survey submission. Once the participants agreed to complete the survey, they provided implied consent.

The social risks were very low in this study. Participants may have experienced feelings of discomfort or anxiety with having their survey answers being released. These risks are no greater than everyday activities. To minimize and manage these risks, we maintained optional participation, therefore participants could withdraw if they chose to. Alongside optional participation, we ensured that no names or identifiable information was associated with any of the surveys or survey data, therefore the data was un-identifiable to each participant. Once the survey data was collected, everything was stored within a secure OneDrive account that was only accessed by student investigators.

In addition, participants had the ability to skip any question(s) that they did not wish to answer or felt uncomfortable answering. There was also the contact information of the Student Wellness Centre in the letter of information and at the beginning of the survey as

a resource that participants could access if they felt the need to talk about anything that came up within the survey.

Due to the current situation with COVID-19, recruiting participants was challenging, as it was done solely online, and this may have limited the amount of outreach we received. As such, we reached out to numerous McMaster clubs and services to promote and share our survey, in hopes of reaching our target participant count. Besides potential limitations within recruitment, another issue that could have arisen was collecting a non-representative sample. Due to the fact that this thesis project was mandatory within the Honours Social Psychology Program, it was probable that a lot of Social Psychology students would have been involved in filling out the survey. As Social Psychology students are more aware that surveys were being conducted, there may have been an overrepresentation from students in the Social Psychology Program in comparison to other programs at McMaster. With this potential bias, we recruited through various McMaster clubs and societies, in an effort to get a well-rounded and representative sample. Lastly, during the formation of the survey and data analysis phase, there may have been limitations with wanting to analyze behaviours. Due to the nature of surveys, there was a limitation in what type of questions we could ask in order to understand and analyze their online behaviours. This being one of the reasonings in which we also looked at the participants' perceptions of their behaviours.

After conducting our survey, we began to collect and aggregate the data. This process entailed identifying the themes that were common among the various survey answers, as well as identifying key trends. These steps were crucial during the data analysis phase as it aided us in uploading our data into Excel, which was the next step. Excel is a software that was utilized to map and present the trends within our data. Establishing our key themes and trends prior to uploading our data to Excel induced ease of use with utilizing and navigating Excel. Once we uploaded the data into Excel, we were able to determine whether our hypothesis was proven correct or incorrect. The final step within data analysis was to compose all of our findings and write a report to summarize our entire study.

Through our research, we asked questions apart of 3 sections, their social media preference, perceptions on social media's influence on individuals' behaviours, and perceptions on social media being a tool in sharing information. Asking these questions allowed for the participants to provide their input and views on social media, but also assisted us in achieving our goal of seeking how social media impacts our thoughts and behaviours. Having a mixture of open-ended questions, closed-ended questions, and utilizing Likert Scales widened the input we received from participants. A limitation with utilizing online surveys was the type of questions we could ask, in order to get enough input regarding behaviours and perceptions. As such, asking various types of questions hopefully increased the amount of information and insight provided by participants.

Results

Our research examined (n=53) undergraduate students from McMaster University; 1st year (9.43%), 2nd year (16.98%), 3rd year (16.98%), 4th year (49.06%), and 5th year or higher (7.55%) were surveyed. The students' faculties varied, with the majority being a part of the faculty of Social Sciences (66.04%). Faculties that were also present in our survey demographics included Science (20.75%), Humanities (9.43%), and Health Sciences (5.66%). The participants were overwhelmingly female identifying (88.67%) with

the remaining of responses identifying as male (7.55%). It is for this reason that many of our conclusions were made with female identity and experiences in mind. Our respondents identified with the following ethnicities, in order of prevalence; White/Caucasian (67.92%), South Asian/Asian (9.43%), Indian (7.55%), Middle Eastern (5.66%), Indigenous (1.89%), and other (1.89%).

Intentions of Social Media

There were noteworthy results in gathering the intentions of participant interactions on social media and 56.60% (n=30) stated that they sometimes are likely to be an active user through posting and the creation of content. This is extremely interesting as there tends to be a strong passive intent when using social media among our participants. In question 5, participants were asked, "why do you spend more time on this platform? Please select all that apply." It was found that majority of participants, (n=43) used their preferred social media as it was the most entertaining platform. This was an interesting finding as it emphasized agency amongst the participants as they were not dependent on other individuals for their decision. The next most common response, (n=41) was because it was easy to use. This is understandable as many individuals would not likely engage in an overchallenging platform. Interdependence comes into play as (n=35) respondents said they spend more time on the specific social media due to friends and family usage. Many individuals, (n=33) said that there is a lot of information that is able to be accessed. A decent number of participants said that they used the platform for the ability to connect with others (n=25), escape from reality (n=20) and connect with certain celebrities and public figures (n=20). The remaining responses were low and not many participants used their selected social media platform for seeking friendship relationships (n=5), wanting to take on a new sense of identity (n=3), seeking romantic relationships (n=1) and other intentions (n=2).

Intentions of Social Media Significant Trends

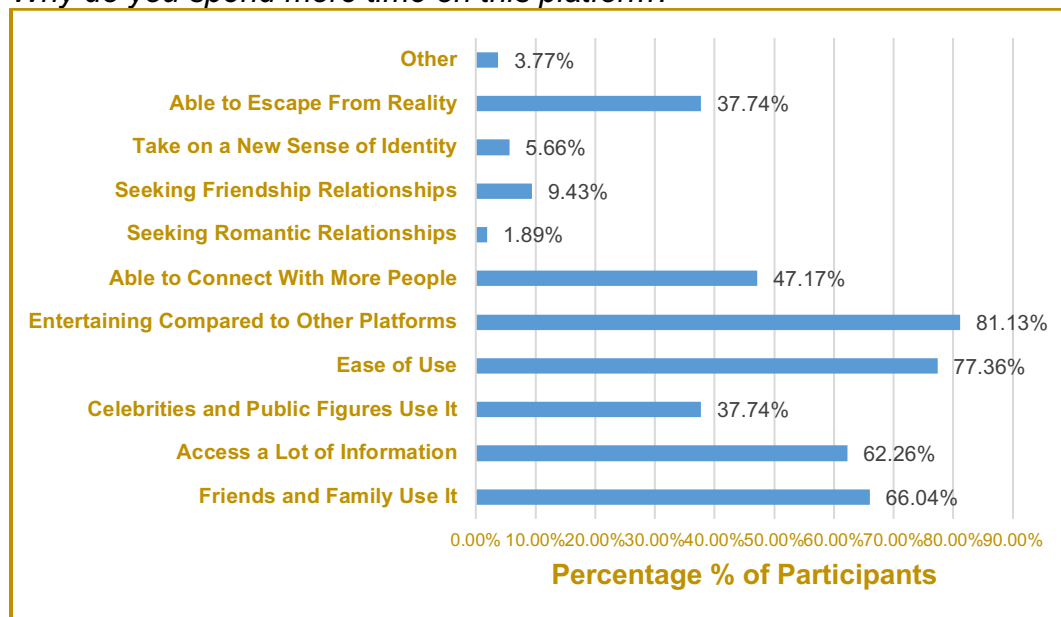
The results found that majority of participants engage with social media platforms (81.13%) because of the entertainment value it provides. This statistic raises the question of whether or not individuals engage with the same social media platforms as their friends or peer groups in order to discuss the entertaining content or is it simply a solo preference. Also, the question can be asked if peers have an influence on the platforms an individual uses or is there a sense of agency and independence among users? Moreover, this directly correlates to participants' responses in question 7 that asks, "do you often spend time mindlessly scrolling through your social media" where 84.91% (n=45) said yes. These two questions link together the idea that individuals on social media engage with certain platforms because of the content and the ability to see multiple posts, photos or videos in a small amount of time. Additionally, the results of question 8 come into correlation as (n=45) answered either very unlikely (n=4), unlikely (n=11) or sometimes (n=30) to the question, "how likely are you to be creating content (posting/commenting/sharing) on your social media?". It can safely be assumed that the intentions of many social media users are simply to be a passive user and engage with others' content rather the creation of original posts. This poses questions on what drives users to interact on a platform with original content versus nonoriginal content? All of

these findings and questions raised could be room for future research to be conducted. Potentially, having a majority of our participants identify as female (96.23%) impacted the responses as they hold a different outlook on how to interact with social media.

Figure 1 depicts the responses from question 5 of our survey, “why do you spend more time on this platform?” In question 4 of the survey, participants were asked about their social media preference, thus question 5 was designed as a follow up, building upon the previous response. It is evident that there is a wide range of responses and participants varied in their social media intentions when deciding on a platform to use most often. Majority of participants emphasized their chosen social media platform because it was entertaining (81.13%) and easy to use (77.36%). On the other hand, intentions of using social media to seek romantic relationships (1.89%) were not as prominent. Moreover, Figure 1 is able to gather the intentions of social media usage among undergraduate students at McMaster University.

Figure 1

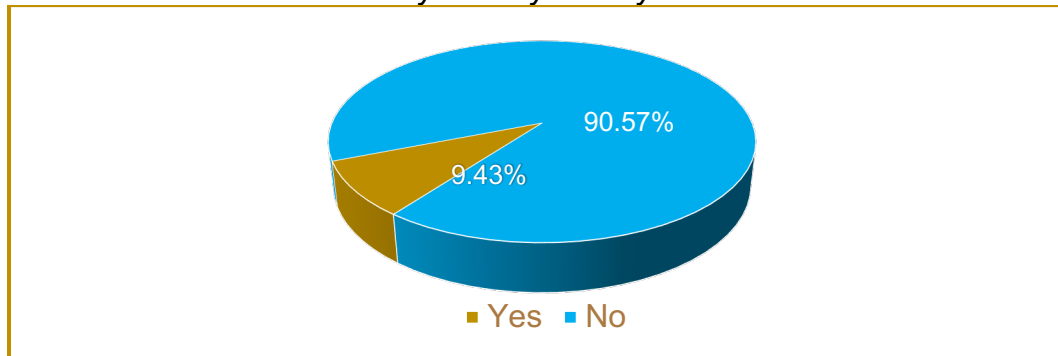
Why do you spend more time on this platform?



Awareness of False Perception

In question 15, participants were asked whether or not they believe that information shared on social media accurately portrays reality. Overall, of (n=53) participants, 90.57% of participants agreed that social media does not accurately portray reality as seen in Figure 2. While online platforms do not seem to allow individuals to feel as though they can express themselves honestly, it is clear that they acknowledge that what they see is not true to what is really going on in one’s life. This statistic is significant as despite the acknowledgment of these false realities, according to question 7, 83% of participants still spend between 2-5+ hours on social media sites daily. In question 12, participants were asked in an open-ended question how groups and pages on social media influence individuals’ behaviour. These findings were interesting as five dominant themes emerged. These themes included false self-portrayals, conformity, polarization and bias information, the role of social media in forming opinions and beliefs, and unrealistic

Figure 2
Does Social Media Accurately Portray Reality?



perceptions of beauty standards. According to our findings, unrealistic perception of beauty and image was mentioned by 43% of participants, whereas conformity was mentioned by 40% of participants. Bias information was mentioned by 21% of participants and fake portrayals of self was mentioned by 17%. Lastly, forming personal beliefs and opinions was only mentioned by 9% of participants. Therefore indicating that participants were more consciously aware of the perceptions of beauty, image, and conformity, when using social media. However, participants were asked in question 11 whether or not they behave differently on social media versus in real life. A significant proportion of individuals ($n=34$) do not believe they contribute or behave in a way that is influenced by these false perceptions. Out of the individuals who admitted that they behave differently ($n=19$), three common themes were perceived within the follow-up question asking why they behave differently. The first theme being the desire to present themselves better, secondly presenting oneself in a way they believe is socially desirable, and lastly, showcasing positive parts of their lives only. Based on these themes, it is evident that social media users are aware of other's perceptions of them, thus impacting their online behaviour. Participants were asked in question 1 which social media platform was their favourite. Out of ($n=53$) participants, 47.17% thought of Instagram as their favourite platform, followed by TikTok with 32.08%, Twitter with 20.75%, 9.43% chose 'other'. It is also significant to note that out of ($n=53$) participants, 47 identified as female. Thus, an unintended gender bias may exist.

Awareness of False Perception Significant Trends

Within these statistics, it would be more than appropriate to suggest that despite the awareness that social media skews perception on more than just a visual level, many participants still feel the need to engage with and use social media platforms. It would also be appropriate to note the likelihood of participants basing these understandings of social media platforms on the platform they mentioned to be their favourite. For example, 43% of participants mentioned unrealistic perceptions of beauty standards and 47.1% of participants said Instagram is their favourite platform. Due to the platform being primarily visual and pictorial, a correlation between favourite platform and the type of false perception being experienced could exist. To further explain this possible correlation, the question of whether or not the false perception of specifically body image would be a significant influence if Twitter, a platform that is primarily text, was the majority of

participant's favourite platform? A second possible correlation could exist between the type of false perception participants are experiencing and their gender, a correlation that could not be confirmed due to our unintentional, but possibly existent gender bias. These findings could open the door for future research in discussing the extent to which favourite and most frequently used platforms dictate the 'theme' of the false perceptions participants are experiencing.

Biases/Shared Beliefs

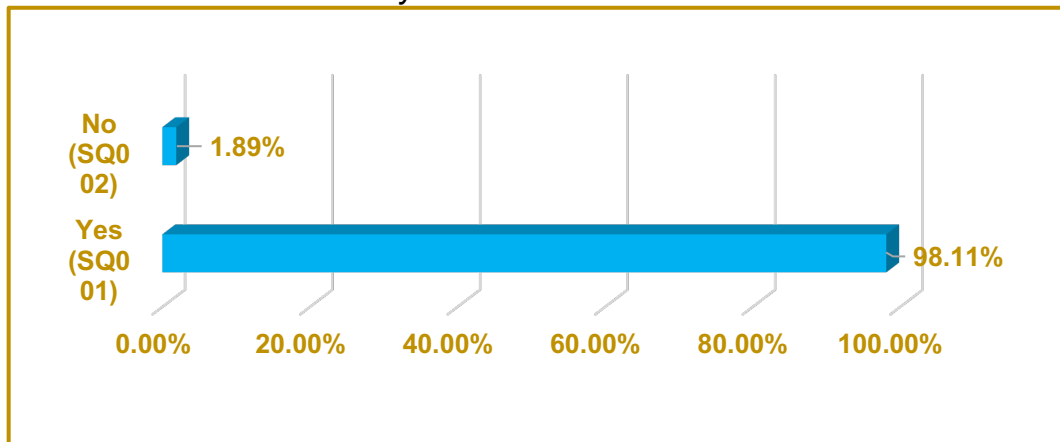
We asked our participants in question 17 if they believed that there were biases on social media. In total, (n=52) participants indicated that they believe that there are biases within social media. Therefore, (n=1) participant believed that there were no biases on social media. This was unexpected, as majority of participants were open about noting that there is a bias present on social media. We had anticipated some sort of denial or embarrassment in regard to perceiving a bias, as they would then be at fault for being influenced by such biases. Nonetheless, although there was only one participant who noted there were no bias, it was still a notable response.

Figure 3 illustrates our participants' responses when asked if they believe there are any prejudices in social media platforms. As shown, 98.11% of participants believe that there is some kind of biases that can be found on social media, whereas 1.89% of participants believe that there are no biases at all on social media.

In question 18, we asked participants if they believe that individual beliefs and values are often shared on social media. From the participants that responded to this question (n=53), majority of participants (n=46) answered yes, that they believed it is often shared online, whereas only a few participants (n=7) answered no, that they do not believe beliefs and values are shared online. In terms of which social media platform they believed was commonly used when openly sharing their beliefs and values online, in question 19, Twitter was the most popular (n=34), Facebook following close behind as the second most common (n=32), Instagram was the third common (n=15), and TikTok reported as the less common (n=13) used social media platform. Lastly, n=1 participant indicated other, they believed that YouTube was the most used platform for openly sharing beliefs and values online.

Figure 3

Do You Think There Are Any Biases On Social Media?



Biases/Shared Beliefs Significant Trends

Throughout our research, there were many significant trends that we found based on participants' answers. The first interesting trend identified was most participants (98.11%) indicated that they believed there were biases on social media. We found this interesting because based on the responses we received in question 14, most participants (67.92%) indicated that they believed social media had a strong influence on their behaviours between individuals. We also found that a small percentage of participants (33.96%) noted that social media had some influence on their behaviours. The majority of participants (88.68%) indicated the reason why they believed social media influenced their behaviours was based on setting standards and norms, wanting to compare themselves to others and be liked by them, formulate opinions on what is happening in the world, etc. This further posed the question of whether social media has an influence on the biases they have on social media and in reality?

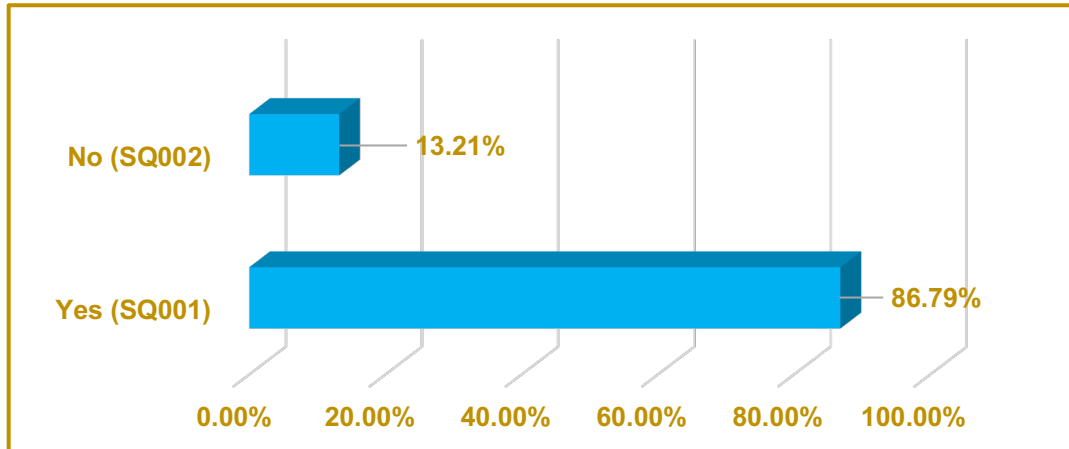
Another interesting trend that was noted was that in question 18, a high percentage of participants (86.79%) indicated that they believed individuals often shared their beliefs and values on social media. This was interesting due to the responses we received in questions 15 and 16. In question 15, participants were asked if they think social media is a good way to share information, about half of the participants (49.06%) noted that they believed it was a good source for information, a quarter of participants (26.42%) noted that they believed it is a fantastic source and lastly, the other quarter of participants (24.53%) noted that it does not do a good job of sharing information. With this information, we can see a discrepancy in responses from question 15, 16, and 18. With a high number of participants believing social media is a good source of information in question 15, whereas several participants do not see social media as a good source of information in question 18. Moreover, in question 16, many of the participants (90.57%) noted that shared information on social media does not accurately portray reality. Therefore, this poses the question as to why do individuals openly share their beliefs and values online, if they do not believe that it is an accurate portrayal of reality?

A high number of participants (64.15%) indicated in question 19 that Twitter was the most used social media platform to openly share beliefs and values, with Facebook (60.38%) following closely behind. This did not surprise us as Twitter and Facebook have always been viewed as expressive social media platforms. The answer that did come as a surprise was that only one participant (1.89%) indicated that YouTube was the most commonly used platform. This was surprising because YouTube had always been viewed as a platform for laughter and enjoyment, we did not think that it would be seen as a platform for openly sharing beliefs and values. Therefore, this posed more questions based on whether shared beliefs and values can be expressed online in different ways. In reference to YouTube, there is no word count, therefore creating the ability to openly express your beliefs and values with no limitations in a verbal video. Whereas on Twitter and Facebook, you do have a word count limitation and it may be hard to put what you want to say into a post. Based on all the information we have gathered, there is still a lot of future research to be done on biases and shared beliefs.

Figure 4 depicts the percentage of participants that believe individuals do or do not share their beliefs and values openly online. This figure explains the responses that we received from participants, in which a high percentage (86.79%) of participants believed

Figure 4

Do You Think Individuals' Beliefs And Values Are Often Shared on Social Media?



individuals do share their values and beliefs openly on their social media platforms, as well as a low percentage (13.21%) that said they do not believe individuals openly share their values and beliefs.

Online Communities

In total, only 24 participants stated that they were part of an online community, thus, most participants (n=28) were not. This came as a surprise for our study, as we had expected many of the participants to have been part of some type of online group or community due to academics. Participants were asked in question 20 which groups or communities they were a part of and why. Out of the 22 that had responded, school, clubs, or extracurriculars were the main reasons for being part of the communities and groups they had memberships to (n=11 participants). Leisure and entertainment were the next highest reasonings (n=6), and then gaining resources or self-help intentions was closely followed (n=5). In terms of how they found these groups, majority of them (n=14) stated that they heard from someone else, either through a friend, colleague, or an influencer they follow. Few participants (n=3) had also noted that they were part of the groups due to personal interest/research, and lastly, the remaining participants (n=3) noted that it was due to the social media's algorithm or automatic incorporation.

Online Communities Significant Trends

As majority of participants (52.83%) had noted that they were *not* part of an online group or community, this was an interesting trend we noticed. Due to the responses in question 20, the main reason for membership was for school or extracurricular reasonings. All the participants that participated were undergraduate McMaster students, thus, all being part of the same school institution. This poses the question of why some students join these groups and clubs, and why not. Are there specific students who are being targeted to join these groups, or is this an issue of accessibility? Participants were asked in question 21 about how they found out about these groups and majority (70%) of them stated through other people. This varied from people within their immediate circle of friends and family, to artists and influencers they follow from a far. With this information, it raised more questions on why most of our participants were not part of online groups.

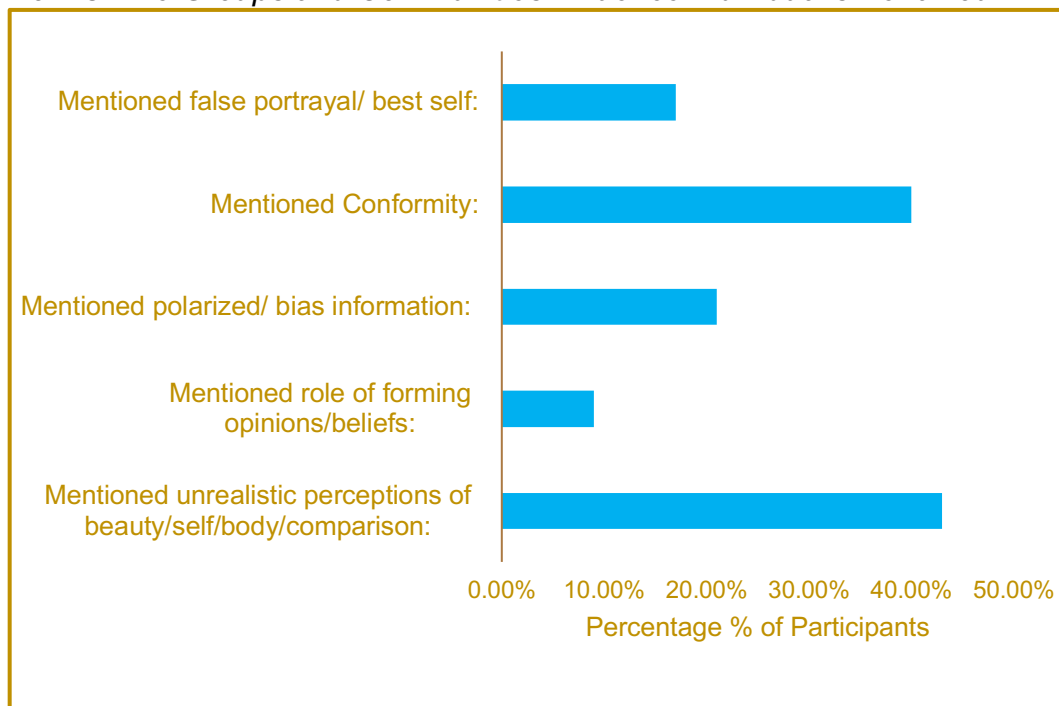
However, it is important to acknowledge the small sample size we had received, thus these findings are not generalizable and only represent a fraction of the McMaster community. All in all, there is room for future research.

It is also important to note how participants utilize online communities or groups as a resource/support tool. Some participants noted that they would join mental health support groups, therapy meme groups, or even some medical disorder support groups. They also indicated how they had a positive interaction and involvement within these groups, as they felt the groups provided a welcoming and empowering space. Lastly, joining groups and communities for leisure and entertainment reasons. Some examples would be local dog groups within the GTA, or groups for their specific culture or religion. Participants had noted that these groups allowed them to connect with other people who had similar interests to them.

Figure 5 depicts common themes that arose in participants' responses with regards to online groups' influence on individuals' behaviours. The responses all fall in the same vein of not being fully authentic online. The high percentage of conformity (40.43%) portrays that individuals feel the need to comply with norms depicted online. This insinuates the presence of groupthink and the potential sense of mandatory conformity. As most respondents identified as female, it is not surprising that there was the highest number of responses containing unrealistic perceptions of beauty/self/body and comparisons (42.56%). These findings demonstrate that online platforms do not always allow for honest portrayals of individuals and it even alters how individuals behave online. In regard to memberships within groups, these groups may sustain these types of norms and standards, thus creating a suffocating environment to adhere to.

Figure 5

How Online Groups and Communities Influence Individual's Behaviour



Discussion

Intentions of Social Media

As discussed in the results section, it was mentioned that 81.13% (n=43) of participants used their favourite social media platform because of the entertainment value it provided. It is important to note that this study was conducted during the COVID-19 pandemic where other forms of in-person entertainment had been limited or completely shut down. Thus, the increase in social media usage solely for entertainment purposes may be slightly inflated. Moreover, the entertainment value of social media is a primary reason for its use. For future research, the definition of entertainment should have been discussed and specified, as there is a wide range of reasons why someone would find their specific platform engaging. One individual might prioritize the ability to watch amusing content as their main form of social media entertainment and another user might value keeping up with current fashion trends through advertisements as the most enjoyable form of entertainment. Regardless, as referenced in the literature review, social media usage as a whole has dramatically increased and is affecting communication, political views, parenting habits, individual stress levels and dating behaviours (Perrin, 2015). Therefore, the intentions of social media are widespread, ambiguous, and individualized for each user.

The intentions a user has on social media also may not be as conscious as one believes, as these platforms have the ability to consume large portions of time and cognitive energy. As mentioned in the literature review, online social networking sites have specific, targeted features that understand users' interests in order to bring people together who have similar beliefs (Kanthawong et al., 2011). Therefore, the concept of groupthink is being enforced without the awareness of the user. Kanthawong et al. (2011) studied symptoms such as the illusion of invulnerability, rationalization, morality, stereotypical thinking, mind guards, self-censorship, unanimity and the tendency to call out members of the group with unpopular opinions. These findings directly correlate to our research as 84.91% (n=45) stated that they spend time mindlessly scrolling through social media. Through this mindless scrolling, our participants 37.74% (n=20) recognized that their intention on social media were attributed to it being an escape from reality. As users are engaging on social media as an escape, they are consumed with numerous advertisements, images and content directly relating to their interests. This could lead to assumptions as well as a groupthink mentality of conformity. For instance, if an individual is only showed content that is of interest to them and fits their beliefs, they will begin to believe that they are correct and discourage the opinion of others. In a study conducted on Wikipedia and groupthink, it was discovered that anonymity associates with an individual's likeliness of conforming (Tiskerdekis, 2013). Social media provides the option for anonymity and as participants specified about using platforms as an escape from reality, questions can be raised about the power of subliminal groupthink.

Significant results were also found as 66.04% (n=35) of participants said they spend more time on a specific platform because friends and family use it. Qualitative responses were gathered in regard to question 2 that asked, "why is this your favourite social media platform?" The intentions were clear and there were a large majority of participants that mentioned to some degree, having access to friends and family was important, as well as keeping up with acquaintances through social media. One respondent said the following in response to question 2, "It's easy and I like to see what my friends post. Makes me feel

like I am in the know." It is evident that connection is extremely important even if it is not through direct interaction but rather knowing that people are alright through their posts. A study conducted on social media concluded that there is the ability to create sustainable online networks and connections with strangers, friends or family (Gruzd & Haythornthwaite, 2013). This research can be linked with ours as it emphasizes the need for group assembly and maintenance of human connection with those in our immediate lives, as well as strangers or celebrities. A decent number of participants in our study, 37.74% (n=20) used specific platforms as they could interact with celebrities and public figures of interest. This figure reiterates Gruzd & Haythornthwaite's (2013) findings and our own that a major intent of social media is for that interaction with others and staying in touch with those who might not be able to be present in one's physical life. In direct relation, 47.17% (n=25) of participants emphasized the intention of connecting with others as a reason for social media use.

Awareness of False Perception

The extent of participants' awareness of the false perceptions social media imposes has been proven to be significant as 92.57% of participants acknowledge such to be true. The influence of false/unattainable beauty standards was a frequented example of such, with just under half of participants mentioning it within their responses to our open-ended question regarding such perception's influence on behaviour. However, despite participants' awareness of these false perceptions, 64.15% do not think their behaviour is directly influenced by them. Could this be the reason why individuals still interact with the false realities that exist on social media platforms? Could these ideals be influencing their behaviour subconsciously? Such questions can be analyzed through previous psychological theories such as Maslow's theory of self-esteem (1958) within the context of Maslow's hierarchy of needs, as well as the social psychological theory of normative influence. It is important to note that such conclusions cannot be drawn indefinitely, but such theories may open the door for future researchers to do so.

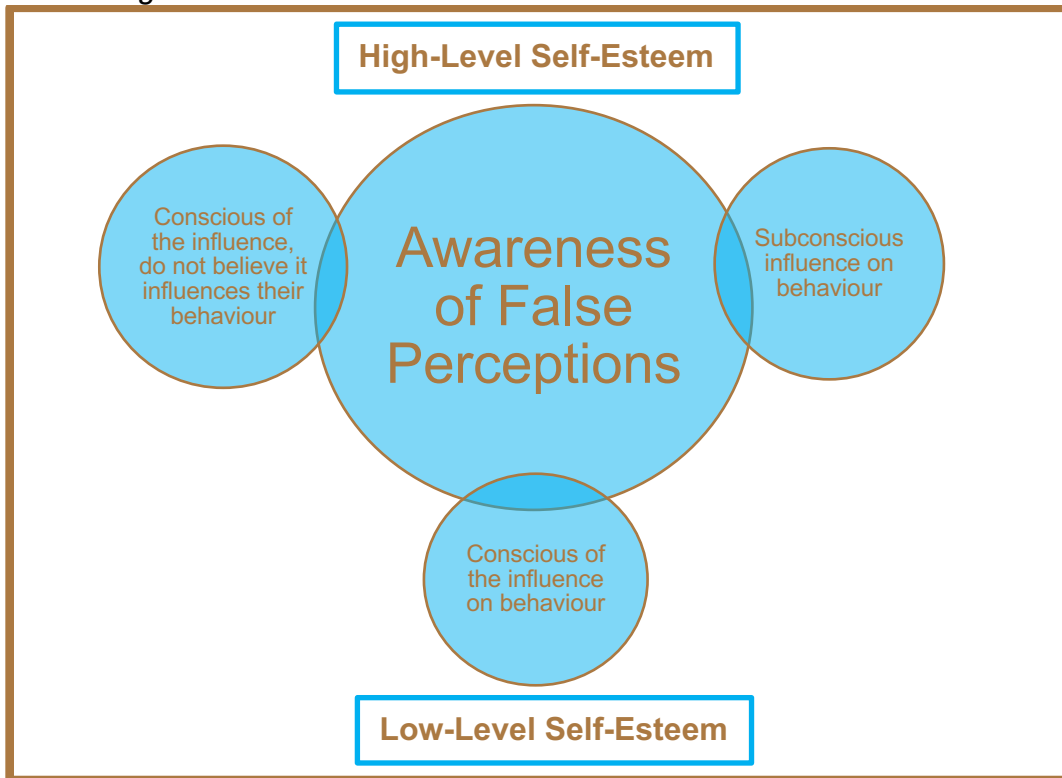
According to Maslow (1958), there are two levels of self-esteem that could potentially explain why individuals acknowledge false realities that social media imposes but act otherwise. The first being low-level self-esteem and the second being high-level self-esteem (Maslow, 1958). Within the context of the study, three main outcomes of behaviour exist following one's acknowledgement of the false perceptions that social media suggests. Participants either allow or reject such realities to influence their behaviour, or they do not believe such realities influence their behaviour, but their behaviour suggest otherwise.

Within the categorization of low self-esteem, it is theorized that individuals view themselves inadequately (Poston, 2009). As a result of this negative self-perception, individuals who fall into this category frequently seek validation and acceptance from external environments (Maslow, 1958; Poston, 2009). Participants within the study who acknowledged their awareness of such perceptions and do let such realities influence their behaviour (n=34) may be subject to having lower levels of self-esteem. Despite their acknowledgement of these false idealizations, participants still allow these unrealistic perceptions to be their standards. The external environment in which the participants were seeking validation from would be the social media platforms they identify to be most

salient in their lives. On the contrary, individuals with high level self-esteem generally have more self-respect and view themselves more highly (Maslow, 1958). Therefore, there exists a possibility that despite acknowledgement of the false perceptions, they are still able to refrain from allowing such perceptions to influence behaviour. Yet, the possibility that individuals with high-level esteem may be influenced subconsciously may still exist. To further understand the possible relationship between self-esteem and influence of false perceptions, please refer to Figure 6. Figure 6 explains the possible overlap between individual self-esteem and the extent of potential influence it may have on individual behaviour. In theory, this correlation could exist, however future research is needed to confirm such relationship.

Normative influence plays a significant role in conformity to biases/shared beliefs and values online and can help explain the correlation between participant awareness of the false perceptions that exist on social media platforms from a social psychological perspective, as opposed to the psychological theory suggested above. Normative influence is defined as a person that conforms to the standards maintained by others in a group setting with the intent of obtaining social rewards or escaping penalties that are based on fulfilling those requirements (Delamater & Collett, 2019). Individuals online will use normative influence to conform to the trends, behaviours, and beliefs that their online groups disclose to stay part of the in-group, regardless of whether or not they are able to acknowledge these norms to be attainable. Normative influence and self-esteem are intertwined, as acceptance and favouritism by others is a major reward that both

Figure 6
Venn Diagram



normative influence and level of self-esteem can dictate to the extent of which the individual wishes to accept and conform (Delamater & Collett, 2019). Perfumi et al. (2019) examined online normative influence by replicating Asch's original conformity experiment conducted in 1951. They found that the dynamics that can arise in online environments, where various channels exist, allow users to communicate with known and unknown people under various degrees of anonymity to learn the preferred conformed behaviour (Perfumi et al., 2019). This aligns with our findings as many participants noted that social media influences their self-portrayals and beauty standards to a great extent.

Biases/Shared Beliefs

As discussed in the results section, majority of participants (98.11%) indicated that they believe there are biases on social media, along with a high percentage of participants (86.79%) indicating that they believe individuals often share their beliefs and values on social media. It is important to note that participants did have a preference on what social media platform they utilized most for sharing their biases/shared beliefs and values. This was interesting to examine which social media platforms are most preferred and which ones are not. Based on the existing literature that has been presented on biases/shared beliefs and values, our results are consistent with what other researchers have learned. It is also important to note that social media has been used to shape and influence our behaviours, which in turn affects our biases/shared beliefs and values in reality. With that in mind, the key themes that arise from the current literature include belongingness and group norms.

Belongingness has been widely examined by many scholars. Delamater & Collett (2019) have noted that belongingness is the desire that an individual must be a part of a specific social group. Individuals will do anything to be a part of that in-group and willing to conform to the wants and needs of the group to feel as if they belong to that in-group.

Belongingness is one of the stages of Maslow's (1958) hierarchy of needs. When this stage begins, socialization becomes a priority for the individual (Maslow, 1958; Poston, 2009). This sense of belonging is incorporated at all stages of life and is centred around the desire that individuals form strong bonds and connections with others. These desired relationships are going to depend on the life stage you are in and can include romantic, friendships, and family connections (Maslow, 1958; Poston, 2009).

The sense of belonging that individuals have on social media sites has become more visible and more available than ever. Social media platforms encourage frequent social and romantic contact with others. James et al. (2017) notes that individuals have a difficult time resisting the desire to use social media as a source for relationships and connecting with others. An individual requires daily social interaction with the in-group that the individual associates with. This implies that as one's sense of belonging to an online social community rises, so does the need for daily social contact with that group (James et al., 2017). This literature connects with our findings, as many participants noted that their behaviour was influenced by social media due to their needs to meet the social standards, wanting to be like the people they saw online and the desire to fit in and participate in the latest trends. The participants changed their behaviours online in order to belong and fit in with the individuals they saw online. Participants noted that they wanted to behave in a way that everyone else was because if they did not, they would look weird and stand

out from everyone else. If they did not conform, this would affect their sense of belongingness and would make them feel as if they were missing out or left out.

With respect to group norms, Delamater & Collett (2019) have noted that group norms are what the behaviours and actions of a group are and how they will govern the group's functionality and activities. Group norms and belongingness are similar in some respects. They are both conforming to the groups' values, beliefs, and behaviours. Group norms online play a significant role in determining the effects social media has on individuals' biases/shared beliefs and values. As discussed earlier, most participants noted that social media was a good source of information for daily life, trends, and opinions. As Valenzuela (2013) highlights, social media platforms like Twitter, Facebook, and YouTube influence our collective actions by providing us knowledge and news of global political issues. They found that individuals who used those platforms more frequently had an influence on their beliefs, values, and behaviours (Valenzuela, 2013).

This aligns with our findings as many participants indicated that social media does have an influence on encouraging similar behaviours, beliefs and values online. This indicates that individuals will change their beliefs, values and behaviours online if it does not align with the group norms that are set online. This also aligns with our findings on participants most commonly used social media platforms for openly sharing beliefs and values. Valenzuela (2013) notes in his article that those platforms had a strong influence in increasing beliefs and values expressed online. Our study found a similar correlation as our participants indicated that the two most commonly used social media platforms were Twitter and Facebook. However, we did not find that YouTube was a commonly used platform that had influence on sharing beliefs and values.

Online Communities

As discussed in the Results section, the majority (52.83%) of participants stated that they were not part of an online community or group. However, it is important to acknowledge that the main reasoning or intention for those who were part of a group was for school or extracurricular purposes. As all of our participants were undergraduate students at McMaster University, this was an interesting finding. Based on the literature that is present regarding online communities and groups, our findings align with what other scholars have found. However, our sample size was small, therefore, our findings are not generalizable to the undergraduate McMaster community. It is important to state the little research present regarding school related online communities, nonetheless, online communities and groups are not solely for school purposes, as seen in our study. They can be used as a resource of information, or for leisure and entertainment purposes. With that being said, based on the literature that is present, the main themes that emerge are homogeneity, group memberships, and individual dynamics within the groups.

Scholars have noted that it is common for group members to have homogenous behaviours and interests (Hui & Buchegger, 2009; Mikal et al., 2014; Templeton et al., 2012). The homogenous behaviour and interests can either stem from online group leaders, for example the creator of the group or the administrator (Templeton et al., 2012), or from individuals trying to connect with those who are similar to them (Hui & Buchegger, 2009; Mikal et al., 2014). In terms of the role of the group leader, they can promote homogenous behaviours due to enforcing group norms or rules for the members to abide too.

On the other hand, they can select certain individuals who already abide by these rules and norms and target them to join the group. Templeton et al. (2012) makes note of the Attraction - Selection - Attrition (ASA) theory, where the functionality of an organization or group is at the extent of trait similarity, or homogeneity among members. Therefore acknowledging the superiority of the group leader on group dynamics and group memberships. On another note, as Hui & Buchegger (2009) stated, users can choose to create or join groups based on common interests, hobbies, political stands or religions. Thus providing the individual agency to select online groups and communities that already align with their interests or values.

This aligned with our findings, as some participants noted that they were specifically looking for groups that were directly tied to specific topics or issues, thus maintaining the group homogeneity. Joining groups or communities that already align with your personal morals will continue the group homogeneity. However, when joining a group that may not be based on a single issue or cause, group norms and behaviours are still presented. As Mikal et al. (2014) studied, individuals modify their behaviour within groups, in order to create a supportive environment within the community. By using the same language, involving the same use of common terms, and similar humour, it will create an expectation for other users to support and create similar content.

With regard to group membership, similarly to homogeneity, individuals will most likely join an online community or group based on their personal interests and values (Hui & Buchegger, 2009). Thus, utilizing the ASA theory (Templeton et al., 2012) to select individuals who share similar values and interests will increase group membership. The ASA theory poses questions to our findings, as the majority of our participants were not part of an online group or community. As the most prominent reasoning was due to school or extracurriculars, it was interesting that the majority of the participants were not a part of general McMaster acceptance groups. These groups tend to be quite popular and often encouraged to be joined. The neglect or hesitancy in joining these online groups was not within the scope of our study, however, would be an important direction for further research.

Secondly, within our findings, the majority (70%) of those who were part of an online community were referred to join by a friend. This correlates with the results of Hui & Buchegger's (2009) study, as they resulted in a link between online and offline friendships, in relation to online group membership. They have noted that the dominant usage pattern is to connect with friends, family, and acquaintances, which then "reinforces structural dimensions of peer social worlds that exist in schools" (p. 53). Another important finding was the sense of feeling left out if the individual did not join an online group or community that their friend suggested (Hui & Buchegger, 2009). Highlighting the aspect of inclusion and belongingness with their peers, both online and offline, is something that challenges our findings. If this sense of inclusion was prominent or impactful, then we suggest our findings would have included more memberships within our participants. The sample that was being studied was younger American teenagers, thus, the sample from our study was older and may not value inclusivity as highly, however, it is still something to acknowledge.

Lastly, as seen within Templeton et al. (2012) study, the stated purpose for the groups was "learning", which the authors noted "may provide insight as to the "type" of person

who may naturally gravitate to the medium” (p. 661). This correlates with our study, as the most prominent reasoning for online membership was for school purposes. This also provides questions on the low membership within our sample, as school is completely online due to COVID-19, thus higher membership was expected.

Once included in an online community group, there are specific norms and behaviours the members need to follow. As noted by Mikal et al. (2014) individuals do end up learning the generally accepted rules and shift to behaviour that is reflected with their group identity. Instead of maintaining their individual identity, they take on the identity of the group.

Within Nimrod’s (2012) study, she also studied the life cycle of individual behaviour within an online mental health support group. These research findings were inspired from Kim’s (2000) findings as they suggested a five-phase membership life cycle. Membership phases beginning as “visitors” or “lurkers,” then moving up to “novice,” then “regulars,” then “leaders,” and lastly “elders” (Kim, 2000). Based on the members of the mental health support group, similar phases were established and were labeled as, “distressed newcomers,” then either became a “passive follower” or “active help receiver” (Nimrod, 2012). Both of these phases then proceeded to “relieved survivors,” and then the member either became an “active help provider” or a “moving on quitter”. Based on the labels alone, it is apparent that at each phase, there are varying levels of involvement within these communities, and based on your contributions will determine which phase you end up within.

Although individuals’ behaviours were outside of the scope of our study, this research highlights the individual dynamics within the overall group dynamic. It is interesting to note that even within the membership phases, the last potential phase of “moving-on quitters” has a negative connotation to it. Implying that leaving the online group signifies you giving up on the community, or even giving up on trying to help your mental health. Having these phases worded in ways that favour continuous membership hints at the consequences of group memberships, along with how homogeneity can be maintained in this way.

With online groups becoming more prevalent within our lives, it was an important aspect to highlight and research within our study. As seen both in the literature and our findings, group memberships can be quite influential to individuals’ behaviours and identities. All this relates back to the theory of groupthink. To reiterate, groupthink is the theoretical perspective that understands the significance of group conformity and the subsequent actions that an individual may take in order to be psychologically and physically consistent within a certain group (Janis, 1971). As the literature states, homogeneity, group memberships, and individual dynamics are all factors at play within groupthink. Maintaining homogeneity within group behaviour, but also within recruiting specific types of individuals, can warrant groupthink. Trying to erase and mask over the diverse and unique qualities of individuals reinforces unilateral thinking, which can often lead to irrational and problematic decisions to be made; as seen with groupthink.

Potentially this unilateral and homogenous behaviour was the reason why the majority of our participants were not part of any online groups or communities. They wanted to maintain unique and diverse viewpoints from others. With all that being said, within our findings, the majority of participants who maintained membership within groups was mainly due to friends/family or others inviting them to join these groups. Therefore, individuals who were already similar in some ways or another conducted the recruiting,

thus encouraging further homogeneity. The homogeneity may have also been a factor of a sense of inclusion. Utilizing those connections of sharing similar values or beliefs to incite group membership, to not be left out and to stay 'up to date' with all of the new trends, ideas, beliefs and information. Although our participants did not elaborate further on their memberships and their experiences within these groups or communities, the findings still presented meaningful insight into the impacts social media has on our lives and perceptions.

Conclusion

With social media being such a salient aspect of our lives and becoming increasingly more with each day, we decided to look at how various social media sites affect group ideology and behaviours using user-generated content. The articles compiled for our research state that social media content does affect individuals, creating an environment where cohesive groups can form and thrive. With increased use, there comes various risks, one of which includes individuals falling victim to groupthink. After collecting our background research, we expected to see some trends in our research that were similar to those in the previously analyzed literature. The current literature does not contain a whole lot of information regarding our specific topic, however, it provided insight into how it might relate to our proposed hypothesis. We hypothesized that undergraduate students using social media find themselves following the trends, norms, and beliefs that are widely available to them through online networking sites. Through this, we can see how pervasive social media is in our interactions, behaviours, and ideologies.

Limitations

While conducting our research, there were limitations that our group encountered. One limitation that we discovered was the current situation within COVID-19. Due to this global occurrence, we understood that there may be limited recruitment. COVID-19 was very serious and may have posed complications for individuals to participate in our study. Another limitation we faced was our participant's connection and access to the Internet. Some participants might have had a bad internet connection and may have chosen not to participate due to this factor, or some participants may not have access to the Internet within their home. This limitation would be significant as all our research was collected online.

Another limitation we encountered was having a small sample size. This hindered our study as the results we concluded are not generalizable to the general population of all undergraduate students. The last limitation that we found was not having the participant's reply to our recruitment email. When the recruitment email was sent out, we only had a few replies from McMaster organizations and clubs. We believe an aspect that may have contributed to this was due to factors in individuals' lives such as school, work, and the weight of COVID-19. Moreover, it may have been a busy time in individuals' lives, and they may have felt that they did not have the time to complete our survey.

Implications for Future Research

Our findings confirmed our hypothesis that individuals act differently on social media, thus impacting their perceptions of reality, however, our results also raised a few

questions that we were not able to research. We found that most participants were not part of an online community, which goes against our theory of people partaking in groupthink due to online communities. Future research should look at the consequences of groupthink and how it could actually deter individuals from joining groups or communities. Our research was conducted during a pandemic, however we did not include COVID-19 as a factor in our research. With this in mind, future literature should look into how COVID-19 has changed how people use online sources and how it has affected online usage. It should examine trends within a pandemic world and how it affects people's usage post pandemic.

Significant Insights

Conducting research to evaluate the impact of social media use on individual perception of reality provides comprehension of the phenomenon of groupthink and its implications. These implications include a false sense of invulnerability, rationality, morality, and unanimity, which can become dangerous if individuals begin to behave accordingly. Research on this topic from a micro perspective can be utilized to create awareness of the effects of overuse and reliance on social media platforms. Through the analysis of everyday interactions, individuals would be able to understand the importance of interacting with others who think differently. Recognizing the false sense of invulnerability that exists when individuals spend large amounts of time on social media would allow individuals to view context in the actual world rationally and provide them with clarity to respond appropriately. Therefore, the prevention of real-life consequences to virtual actions is becoming increasingly more common in everyday life.

References

- Asch, S. E., & Guetzkow, H. (1951). Effects of group pressure upon the modification and distortion of judgments. *Organizational influence processes*, 295-303.
- Asch, S. E. (1956). Studies of independence and conformity: I. A minority of one against a unanimous majority. *Psychological monographs: General and applied*, 70(9), 1.
- Bail, C. A., Argyle, L. P., Brown, T. W., Bumpus, J. P., Chen, H., Hunzaker, M. F., ... & Volfovsky, A. (2018). Exposure to opposing views on social media can increase political polarization. *Proceedings of the National Academy of Sciences*, 115(37), 9216-9221.
- Bénabou, R. (2013). Groupthink: Collective delusions in organizations and markets. *The Review of Economic Studies*, 80(2), 429-462. <https://doi.org/10.1093/restud/rds030>
- Calisphere. (2011). Irving L. Janis, *Psychology*: Berkeley. Retrieved October 14, 2020, from <http://content.cdlib.org/view?docId=hb4t1nb2bd>
- Choudhury, M., Gamon, M., Counts, S., & Horvitz, E. (2013). Predicting depression via social media. *Microsoft Research*. Retrieved October 17, 2020, from http://course.duruofei.com/wp-content/uploads/2015/05/Choudhury_Predicting-Depression-via-Social-Media_ICWSM13.pdf
- Coppolino Perfumi, S., Bagnoli, F., Caudek, C., & Guazzini, A. (2019). Deindividuation effects on normative and informational social influence within computer-mediated-communication. *Computers in Human Behavior*, 92, 230-237. doi:10.1016/j.chb.2018.11.017

- Deci, E. L., & Ryan, R. M. (2009). 25 Self-determination theory: A consideration of human motivational universals. *The Cambridge Handbook of Personality Psychology*, 441.
- Delamater, J., & Collett, J. (2019). *Social Psychology* (9th ed.). Routledge.
- Dijck, J., & Poell, T. (2013). Understanding social media logic. *Media and Communication*, 1(1), 2-14.
- Djafarova, E., & Rushworth, C. (2017). Exploring the credibility of online celebrities' Instagram profiles in influencing the purchase decisions of young female users. *Computers in Human Behavior*, 68, 1-7.
- Forsyth, D. R. (2020). Group-level resistance to health mandates during the COVID-19 pandemic: A groupthink approach. *Group Dynamics: Theory, Research, and Practice*, 24(3), 139–152.
- GoodTherapy. (2011, November 11). Abraham Maslow (1908 - 1970). Retrieved October 16, 2020, from <https://www.goodtherapy.org/famous-psychologists/abraham-maslow.html>
- GoodTherapy. (2011, November 11). Solomon Asch (1907-1996). Retrieved October 16, 2020, from <https://www.goodtherapy.org/famous-psychologists/solomon-asch.html>
- Gruzd, A., & Haythornthwaite, C. (2013). Enabling community through social media. *Journal of Medical Research*, 15(10). doi: 10.2196/jmir.2796
- Hart, P. (1990). Groupthink in government: A study of small groups and policy failure. *APA PsycInfo*. Retrieved October 17, 2020, from <https://psycnet.apa.org/record/1991-97413-000>
- Hart, P., Stern, E., & Sundelius, B. (1997). *Beyond groupthink: Political group dynamics and foreign policy-making*. The University of Michigan Press.
- Hui, P., & Buchegger, S. (2009). Groupthink and peer pressure: Social influence in online social network groups. *2009 International Conference on Advances in Social Network Analysis and Mining*, 53-60. doi:10.1109/asonam.2009.17
- James, T. L., Lowry, P. B., Wallace, L., & Warkentin, M. (2017). The effect of belongingness on obsessive-compulsive disorder in the use of online social networks. *Journal of Management Information Systems*, 34(2), 560-596. doi:10.1080/07421222.2017.1334496
- Janis, I. (1991). Groupthink. In E. Griffin (Ed.) *A First Look at Communication Theory* (pp. 235 - 246). New York: McGrawHill.
- Janis, I. L. (1971). Groupthink. *Psychology today*, 5(6), 43-46.
- Kanthawongs, P., Jiwajaroenchai, T., & Boripun, P. (2011). Groupthink in social networking sites. *Executive Journal*, 31(1), 24-31.
- Kayaoğlu, A., Batur, S., & Aslıtürk, E. (2014, November). The unknown Muzafer Sherif. Retrieved October 17, 2020, from <https://thepsychologist.bps.org.uk/volume-27/edition-11/unknown-muzafer-sherif>
- Kim, A. J. (2000). *Community building on the Web*. Berkeley, CA: Peachpit Press.
- Lavigne, G. L., Vallerand, R. J., & Crevier-Braud, L. (2011). The fundamental need to belong: On the distinction between growth and deficit-reduction orientations. *Personality and Social Psychology Bulletin*, 37(9), 1185-1201.
- Maslow, A. H. (1958). A dynamic theory of human motivation.

- McKeever, R. (2008). *Facebooked: Groupthink in the era of computer mediated social networking*. ProQuest Dissertations Publishing.
- Mikal, J. P., Rice, R. E., Kent, R. G., & Uchino, B. N. (2014). Common voice: Analysis of behavior modification and content convergence in a popular online community. *Computers in Human Behavior, 35*, 506-515. doi:10.1016/j.chb.2014.02.036
- Nimrod, G. (2016). The membership life cycle in online support groups. *International Journal of Communication, 6*, 1245-1261.
- Perrin, A. (2015). Social media usage: 2005-2015. *PewResearchCenter*. Retrieved October 17, 2020, from https://www.secretintelligenceservice.org/wp-content/uploads/2016/02/PI_2015-10-08_Social-Networking-Usage-2005-2015_FINAL.pdf
- Pittman, M. (2015). Creating, consuming, and connecting: Examining the relationship between social media engagement and loneliness. *The Journal of Social Media in Society, 4*(1). Retrieved from <https://www.thejsms.org/tsmri/index.php/TSMRI/article/view/92>
- Poston, B. (2009). Maslow's hierarchy of needs. *Surgical technologist, 41*(8), 347-353.
- Sherif, M. (1935). A study of some social factors in perception. *Archives of Psychology, 27*(187).
- Sims, R. (1992). Linking groupthink to unethical behavior in organizations. *Journal of Business Ethics, 11*, 651-662. <https://doi.org/10.1007/BF01686345>
- Templeton, G. F., Luo, X. (., Giberson, T. R., & Campbell, N. U. (2012). Leader personal influences on membership decisions in moderated online social networking groups. *Decision Support Systems, 54*(1), 655-664. doi:10.1016/j.dss.2012.08.011
- University of Rochester. (n.d.). Department of Psychology. Retrieved October 14, 2020, from http://www.sas.rochester.edu/psy/people/faculty/dec_edward/index.html
- Valenzuela, S. (2013). Unpacking the use of social media for protest behavior: The roles of information, opinion expression, and activism. *American Behavioral Scientist, 57*(7), 920-942. <https://doi.org/10.1177/0002764213479375>
- Yoon, C., & Rolland, E. (2012). Knowledge-sharing in virtual communities: Familiarity, anonymity and self-determination theory. *Behaviour & Information Technology, 31*(11), 1133-1143. doi:10.1080/0144929x.2012.702355