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(Social) Media Priming: The Role of Social Media in Priming Biases and Aggression in Online News Readership

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Abstract

This thesis is aimed at better understanding the role of media priming in biases and aggression while using social media platforms to consume news. Priming theory holds that exposure to media can have short-term impacts on people's subsequent behaviors or judgments. (Roskos-Ewoldsen *et al*., 2009)

Research in priming theory has shown that there are primes for aggressive behavior, the information and criteria we use in making judgments of the president, and various stereotypes. (Chang and Hitchon, 2004; Dixon and Maddox, 2005; Josephson, 1987; Valentino, 1999;)

This study will discuss the ways in which biases and aggression can be more easily primed online, and will endeavor to show that the presentation style of social media platforms may prime viewers to biases regarding news before they even begin reading it.

A survey was administered (N=57) asking subjects about their social media habits, which allows me to present a more complete picture of where importance is placed in online interactions surrounding news. The research reveals that subjects may be primed to place more importance on the original poster, or sharer, as opposed to the source of news. It also confirmed some previous findings regarding the prevalence of aggression in online discussions of news. Finally, this research attempts to draw a correlation between the number of times someone sees a news article posted to social media, and the ways in which that affects their perception of the piece's importance.

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Introduction

A deeper theoretical understanding is needed of the way news is consumed across social media platforms. Research must do more than answer questions regarding who most consumes news via social media and which platforms they use.

It must answer the harder questions about the still-emergent media platforms. What media effects might the introduction of personal connections across digital space foster? And to what degree is the medium really the message? In other words, how do social media as venues for discussion and readership of news fundamentally change that discussion?

For a closer look at these questions, the theory of media priming will serve as the foundation. Priming theory holds that media exposure can have a short-term impact on people's subsequent judgments or behaviors (Roskos-Ewoldsen et al., 2009). Research in priming theory has shown that there are primes for aggressive behavior, the information and criteria we use in making judgments of the president, and various stereotypes. (Chang & Hitchon, 2004; Dixon & Maddox, 2005; Josephson, 1987; Valentino, 1999)

It is important to answer whether or not social media as a venue can prime people for interaction with news. According to Pew Research Center, nearly eight in ten of adults online are using Facebook (Greenwood, Perrin & Duggan, 2016). Another 50 percent of online adults claim Facebook is their first source for finding news (Gottfried & Shearer, 2016).

As social media platforms become an even bigger part of the way people interact with one another and with news, revealing systemic biases that exist within thoseplatforms becomes more important. This paper will give attention to the phenomena of echo-chamber creation to examine the biases more likely to be primed because of social media use as a venue for retrieving news.

Researchers have examined whether or not media exposure can prime aggression (Josephson, 1987; Leyens & Dunand, 1991). Such discussions take on a new tone through the lens of social media exposure. Whether aggressive behavior can be primed more easily on social media ought to be a question of great importance, as more than 50 percent of social media users report unpleasant social interactions on platforms when attempting to discuss issues in the media (Duggan & Smith, 2016).

The most pressing question this thesis addresses results from the interaction between private citizens and the news in a manner not seen, at least in the last era of news readership, where the print newspaper dominated coverage, but didn't necessarily allow the news to change and grow in the way it does as it permeates online social networks and becomes a topic of intense and immediate discussion. The question concerns how strongly an individual connection on social media can prime a person's later evaluation of the news. The new generation of journalists and news aggregators should understand how the stories they share online can take on new life before ever being opened or read.

Literature Review

Priming Theory

Beginning a thesis by proving the existence of its theoretical foundation may not seem wholly confidence inspiring. But priming must be proven because otherwise it would seem too broad entirely. In their synthesis of the major research in media priming, Roskos-Ewoldsen, Roskos-Ewoldsen, and Carpentier (2009) make my point: "Priming refers to the effect of some preceding stimulus or event on how we react to some subsequent stimulus" (p. 74).

By this definition of priming, free will is an illusion, and our lives as so lived represent a

causal chain. Thankfully, the authors qualify their initial definition, revising the concept of priming such that it applies to media, writing, "priming refers to the effects of the content of the media on people's later behavior or judgments related to the content that was processed." (Roskos-Ewoldsen et al., 2009, p. 75)

To truly make sense of this definition, it becomes important to understand the way memory is structured. Much of what is known about the way priming works is derived from theories of memory (Carpentier, 2016). Theories of memory are those that try to explain the ways our memories are organized, stored and retrieved for later usage (Berkowitz, 1984).

Berkowitz (1984) wrote that memory ought be regarded as a collection of networks, consisting of nodes that are interconnected through neural pathways. It's important to conceive of memory as interconnected to move forward with priming theory, because the concept deals necessarily with the activation of nodes that can be more easily accessed later. Berkowitz (1984) refers to this recall as priming, saying "for some time after a concept has been activated there is an increased likelihood that it and associated thought elements will come to mind again" (p. 411).

Earlier studies concerned with developing theories of memory referred to this concept as "spreading activation" (Collins & Loftus, 1975; Quillian, 1966). Collins and Loftus (1975) wrote at length about spreading activation theory, and noted some of its most important assumptions: The first is that we must assume activation travels outward after a concept is processed. The authors take care to note that priming works in a decreasing gradient. In other words, the farther away from the original concept one is, the less obvious the linkages will become.

The next assumption deals with the amount of time the original concept is processed,

either by reading, seeing, hearing, or even mentally rehearsing it. The longer a concept is processed, the longer spreading activation will be released from the node containing the concept. (Collins & Loftus 1975, p. 411) The authors also note that activation can only start out at one node at a time. However, the activation is allowed to continue in parallel from other nodes as it spreads from its point of origin. Imagine being in the situation room, watching a nuclear war unfold as told in every action movie. The first bomb can come only from one place, leaving but one connection. But as news of its release spreads, and more actors become involved in firing their own bombs, a series of related nodes would develop.

The third assumption is important as well. It says that over time and/or intervening activity, activation will decrease. This assumption accounts for part of an important question regarding the duration of primes. As Roskos-Ewoldsen et al. wrote, (2009) some priming studies endeavor to measure primes within milliseconds—a sort of 'flash in the pan' approach, whereby concepts can be primed quickly, but disappear with almost as much speed. Part of the explanation in such a short duration lies in the experimental setting, whereby researchers induce an intervening activity, intended to shorten the duration of the prime. (Roskos-Ewoldsen et al., 2009 p. 75) Other studies in political priming have found the duration of primes to be much longer, due to recurrent media coverage of issues.

> The fourth assumption deals with the concept of intersection: "With the assumption that activation is a variable quantity, the notion of intersection requires a threshold for firing. The assumption is that activation from different sources summates and that when the summation at the point of intersection reaches its threshold, the path in the network producing the intersection will be evaluated." (Collins and Loftus, 1975 p. 411)

In other words, the effect of the prime should be felt at the intersection of the connection of two separate concepts. This is one reason that a great deal of research on priming looks at the activation of stereotypes (Valentino, 1999; Dixon and Maddox, 2005; Mastro, 2009; Campbell,

2016). For example, media portrayals of black Americans as aggressive can be problematic. Each time one of us is exposed to the concept in media, it can be reinforced. Thus, our concept of a black American comes to intercept the concept of aggression more easily, because we are primed for such an interception each time we encounter a black American depicted as aggressive.

Nearly 10 years after Collins and Loftus, Berkowitz (1984) added another important assumption to the theory through a discussion of the differences in automatic and controlled processing. Automatic processing refers to processing that takes place automatically in the brain, passively and involuntarily (1984, p. 412). Controlled processing refers to the type done under serious attention to detail. Berkowitz then posits that priming effects exist within the realm of automatic processing, meaning they happen quickly and without our explicit knowledge.

This assumption is particularly important as well. Without the assumption that priming occurs naturally as a result of spreading activation, it could cast quite a shadow. When Berkowitz (1984) first posited that priming was an automatic process, the literature was particularly concerned with media exposure to violence priming aggressive behavior. If priming was not thought of as an automatic concept then the intersection of violent portrayals with real life increases in aggression would signify a return to an era of strong media effects. The hypodermic needle model, called the first paradigm of media effects studies (Baran & Davis, 2015) held that content in the media acted as a hypodermic needle—in other words, the media got under your skin, and you reacted more or less in turn to what you were witnessing. Violence in the media then, would beget violence.

Though Berkowitz was writing well after the first paradigm shift in media studies, his suggestion that priming is an automatic process gave room for a great deal of interplay between

the media, and what would be primed. The automaticity of the concept brings us to another necessary assumption: That priming, much like the theories of memory it operates within, is bound by culture and personal experience. The color red couldn't possibly prime a person to think of a fire truck in a world where all fire trucks were green.

Collins and Loftus (1975) make some room for individual agency in the theory by discussing the difference in lexical and semantic primes (Collins & Loftus, 1975). For example, a person can prime words in his or her lexical network that sound like 'bird.' Or they can prime semantic concepts related to 'bird,' which should vary from person to person, but may include 'birdhouse', or 'Grey Heron'. Worth noting is that these concepts do not mutually exclude one another. Lexical and semantic primes may operate together, growing the network of related concepts exponentially, until you quit caring about all the things related to 'bird.'

In summation, priming is primarily an automatic task. Subjects may be able to "choose" a starting point, as Collins and Loftus (1975) suggested, but what follows is largely a result of automatic processing.

This discussion of the way priming works has been intended to make clear the nature of the phenomenon being discussed. Priming is mainly automatic, and can be thought of as a sort of spreading activation of related concepts (Collins & Loftus, 1975). Priming effects operate within a time-bound system, especially in relation to the media. The amount of coverage given to a particular event can prime evaluations of that event for weeks (Roskos-Ewoldsen et al., 2009, p. 76).

The Projection Hypothesis

Some scholars have suggested that priming is too easily confused with projection (Hart & Middleton, 2014). Hart and Middleton (2014) wrote that priming should show a correlation

between a person's approval of some issue, such as education, having bearing on the overall approval of performance. So the more regularly the issue of education is in the news, it will come to have greater salience. A priming effect would be suggested if people's overall approval of the president changed with their approval of his handling of education. The issue of education, in other words, primed people's overall approval.

The projection hypothesis suggests the opposite, which is that news causes voters to shift their issue approval (education) to reflect their prior overall approval. So the voters' overall approval affects their impression of the issue the media is making more salient.

The real question here is the direction of the causal arrow. If voters are aligning their overall approval of the president with issues made more salient by media coverage, they are indeed being primed. But, if voters are simply projecting their already-held beliefs about performance onto new information, then nothing is being primed—an important distinction to make before moving forward.

To do so, Hart and Middleton (2014) needed to design a study containing several parts. First, the authors had to establish both baseline-approval ratings for then-President Obama as well as issue-approval ratings. Then the authors chose two different treatment issues; one about the environment and the other about education.

To test for priming effect, the authors had to determine the direction of the arrow of approval. "To test for media priming, we regress post treatment overall presidential approval on the pretreatment measure of issue approval. This eliminates bias due to projection because relying on pretreatment issue approval ensures that the effect of treatment stories evidences a change in the subjects' overall approval and not their issue approval." (Hart & Middleton, 2014 p. 587)

Ultimately, the authors referred to their study as the first of its kind to experimentally demonstrate the capacity of news coverage to change individual level evaluations of the president through priming. For the issues of the environment and education, exposure to the news caused voters to align their overall approval with their prior issue approval, meaning a priming effect took place. Also worth noting is that the authors found little evidence of the projection hypothesis at play.

People Acting As Primes

One of the major foundational arguments of this thesis concerns social media as a venue capable of priming users' subsequent evaluations of news articles on social media. The thesis explores the role of the individual in priming others on social media before they begin reading a news story. This section of the literature review will consider how people can act as priming mechanisms, and will explain how that occurs within the context of social media. This discussion of the work being done on priming aggression and political priming will show that people can act as primes, and that social media may provide a venue for such priming effects.

Personalization has been noted as part of the power of social media. (Doyle & Lee, 2016; Sunstein, 2007) Social media when used by an individual, as opposed to a corporation, is a personal tool. It displays, first and foremost, the name of the original poster when scrolling.

Josephson (1987) conducted one of the landmark studies in developing priming theory by involving a group of middle school children in a game of floor hockey (Josephson, 1987). What Josephson intended to find was to what degree exposing third grade boys to violent programming would result in higher levels of aggression. To do this, Josephson showed selected excerpts of television material to two different groups of boys. One of the excerpts depicted a SWAT team engaging criminals. The other excerpt depicted a motocross race. Before showing the material,

Josephson took measures of each of the boys' trait-aggressiveness by speaking to their teacher.

The priming item chosen for the boys shown the violent excerpt was a walkie-talkie. Directly before the violent segment began, one member of the team directs snipers to take action, using a walkie-talkie to deliver the message (Josephson, 1987 p. 884).

In the next phase of the experiment, Josephson set up a game of floor hockey to determine whether the walkie-talkie could act as a prime in producing real-life evidence of an uptick in violence.

The results revealed several things. For boys rated high in trait-aggressiveness, the presence of violent programming plus a prime had significant impact on aggression. For boys with low trait-aggressiveness, the presence of violence plus a prime was less significant, but still raised the level of aggression (Josephson, 1987 p. 886).

The results of this study are important to consider for several reasons. The first is that Josephson's study gives weight to one of the earliest stated assumptions about priming effects—that they are processed automatically. Choosing a walkie-talkie as the priming instrument had merit because it is such a subtle cue. If priming effects can be felt through a walkie-talkie, it's reasonable to accept that priming effects could be felt through priming items of higher intensity.

Second, and particularly pertinent to this thesis, is the effect of in-group aggression correlated strongly with groups containing high-trait-aggressive boys (Josephson, 1987). Though not totally surprising on its own, the idea that characteristically aggressive boys could be primed so strongly by violent programming led Josephson to hypothesize that boys with high trait-aggression could actually act as primes themselves, introducing a generally higher level of aggression within class groups that were regularly exposed to overt aggression.

The idea that individuals could act as priming mechanisms over time could be especially

valuable when applied to online interactions. My own informal observations of online aggression have suggested there is often an initial aggressor whose online persona is well established. That is, people within certain social networks become "used to" another's aggression. I believe there exist one or two people within each social network whose aggression is so overt and well known that others in the network come to expect this person to fan the flames of comment wars, or be the first to enter the fray. In the same way third grade boys could be primed to act aggressively due to regular encounters with classmates' aggression, this aspect of priming theory could be applied to explain social media aggression as catalyzed by one particularly aggressive comment. Not only could spreading activation occur as a result of the content of the post itself, but it could be furthered by people's associative knowledge of the original commenter.

In fact, Barnett, Nichols, Sonnentag and Wadian (2016) found that due to a lack of contextual, verbal, and nonverbal cues on Facebook, an adolescent who misinterprets an ambiguous online tease or comment and responds to the original poster whose attempt may have been affiliative or benign, is likely to "initiate subsequent unpleasant interactions with that individual" (p. 2). In the same study, the authors investigated whether adolescents were likely to misinterpret teases posted to their Facebook wall, and found that a high number of subjects revealed a hostile-attribution bias for ambiguous online encounters, meaning the subjects were more likely to assume hostility on the part of an opposite commenter.

The social media environment in which we discuss and consider political news may alone predispose people to aggressive responses. More than one-third of social media users are worn out by the amount of political content they encounter, and more than half describe their online interactions with those they disagree with politically as stressful and frustrating (Duggan & Smith, 2016).

Leyens and Dunand (1991) found that the mere *expectation* of encountering aggressive content could in turn raise one's level of aggression. The authors hypothesized that even the expectation of aggression on the part of another would prime aggressive responses by invoking violence related schemata, causing people to behave more aggressively even before exposure to content. This study is important to note because it returns to and validates some of the original assumptions stated about priming theory. The concept most at play here is that of spreading activation (Collins & Loftus, 1975; Quillian, 1966).

Recall that spreading activation refers to the ease with which similar concepts can be brought up in memory. Leyens and Dunand (1991) assessed the ease of priming aggression via a relatively simple design, whereby subjects were told they would be shown either a violent film or a neutral one. Upon arriving to view the film, the subjects were greeted by a confederate who spoke of one or other of the films as 'very good,' but then began describing certain scenes in accordance with the conditions of the experiment, stressing either violent episodes or more peaceful ones (Leyens & Dunand, 1991). Next, participants were told they would be performing a motor skills completion task in pairs. The goal of the task was simple: One participant would try and insert a stylus into a hole, while the other participant would try and deliver an electric shock to stop his opponent from doing so. The pair would then switch roles. Two levels of shock were available. Level one served as the basic measure, while the option to shock opponents using a level two shock was also available. The level two shock was one and a half times more intense than the level one shock.

The authors (1991) found that subjects who were expecting to watch a violent film delivered more shocks and at higher intensities than those subjects exposed to the condition of expecting a neutral film. This study is included because it advances an important concept. It

shows the relative ease and automaticity with which primes can take place. Research on priming often looks at the effects of actually *showing* violent content to individuals, but the idea that aggression can be primed through anticipation is equally interesting, especially in regards to the anecdote advanced above regarding social media. If the expectation of violence or aggression can prime aggression, it's reasonable to believe that some people logging onto social media with the intent of reading or discussing political news content may be primed to act aggressively based solely on their view of the medium—in other words, the venue itself may well serve as a priming item that primes aggression before users log on.

To enforce the claim that people may be primed to act aggressively on social media as a result of expecting to encounter aggression, I will review some of the relevant research on social media as a venue for discussing news. According to the Pew Research Center (2016), many users of social media sites view the conversations that take place there as "uniquely" negative and aggressive. Fifty three percent of social media users surveyed reported that conversations about politics that unfold on the medium are less respectful than conversations that may occur anywhere else (Duggan & Smith, 2016). 50 percent of social media users surveyed reported that discussions about politics and the news on social media are angrier than those that occur anywhere else (Duggan & Smith, 2016). Clearly, there exists a large contingent of social media users who see the venue as a whole as very aggressive—something that may prime aggression amongst users before they even log on, as a result of the wide-ranging expectation that social media is a place where one is "more likely" to encounter aggression (Duggan & Smith, 2016).

The idea that individuals can prime reactions to concepts has been suggested beyond the realm of social media. Taakens, Kleinnijenhuis, Van Hoof and Van Atteveldt wrote (2015) about instances in which greater personalized coverage of politicians could prime voters at a

higher rate than general-issue or party affiliated coverage. In referring to "personalized coverage" the authors here mean the type of coverage that focuses on one individual politician at the expense of the party itself. Taakens et al. call this the "Leader Effect," noting that people's admiration of one individual can in fact prime their consideration of the entire party.

The authors hypothesize that priming effects will occur as a result of the Leader Effect, where voters will place more weight on the views of an individual as coverage of him or her increases. Interestingly, Taakens et al. designed the study to account for alternative possibilities that could rival priming. Those include the possibility of projection (Hart & Middleton, 2015) as well as the possibility of social learning (Lenz, 2010), which makes this study especially valuable in its testing of several theories that intend to offer an alternate explanation for priming theory.

The learning effects theory, posited by Lenz in 2010, stands in slight opposition to priming theory by assuming that news helps people learn about candidate issues, and as a result people base their vote on their own issue agreement with the candidate. If a strong degree of issue learning is what's taking place, the authors say that one would expect a stronger effect of issue agreement on the vote as a result of personalized coverage (Taakens et. Al, 2015).

In noting how learning effects and priming theory differ, the authors lead us to one of the theory's important assumptions. One of the reasons priming and learning theory differ is that if people were in fact learning more information about the party as a result of close coverage of a leader, one would expect the data to show issue agreement rising as personalized coverage does. But primes that are thought to work through media carry another important stipulation:

> "A side effect of the priming of a specific decision criterion is that the vote will be based less on other criteria. Personalized news coverage is therefore expected to diminish the effect of prior party evaluation, prior vote intention, and prior issue agreement on one's current vote intention." (Taakens et al., 2015 p. 252-253)

The authors' meaning is that priming via one concept automatically causes other concepts to hold less weight. As in the case of this particular study, the leader effect rises with personalized coverage, but other metrics for judging voter behavior actually diminish. The authors take this as a robust proof of priming, confirming several of their hypotheses, but especially the stated priming hypothesis; that an uptick in personalized coverage would prime voters to act more based on their assessment of a single individual.

This particular article is relevant to this study because it demonstrates several important points. First, it provides another test of priming by including the possibility of alternate explanations in its model. The second has more to do with the questions asked in this study. The authors' examination of and findings that priming effects operate through the coverage of an individual are relevant here, as it is the theory of this research that people may operate as priming items in some instances. Though the study does not address social media, it does examine the role of regular media in acting as a priming agent as well. The study's assessment of the role of increased coverage was important, as it points to the reliability with which continued coverage of an individual can prime others. Though social media and legacy media certainly differ in their respective aims, both provide coverage in the most general sense of the word. I take Taaken's study as important because I think it provides a base of comparison to my own idea.

The concept of media as a prime as applied in the Taakens study is analogous to the idea in this project because it shows how important media is in acting as one channel through which people can act as primes. The suggestion that individual people can prime others is not meant to remove the importance of mediated communication. Primes must occur through media coverage. But as this thesis has argued, coverage across social media should be viewed differently when

trying to apply classic theoretical frameworks, such as priming theory.

In this research I posit that across social media, people can indeed act as primes on others in discussion of news and issue-based coverage. The social media fills the same role as traditional media in the original priming hypothesis. I am suggesting that the medium as a mode of delivery makes priming easier by exposing users to personal social cues that prime them to biases regarding news articles before beginning. I believe the classic media priming hypothesis needs to be updated in the age of social media, to reflect the possibility that individuals act as primes on others in social settings, and that this effect may be felt on social media to a larger degree due to the nature of the venue, which places great importance on immediate identification not of the source of the post, but of the original poster. The individual person who makes the post could be said as acting in the place of a more traditional news outlet or even a news aggregator. This leads to my first hypothesis that people may be acting as priming items on others.

H1: An individual who sees a post shared to social media by someone he knows personally is likely to regard that post as a reflection on the poster.

RQ1: What do regular social media users report to noticing first about news articles shared by their connections on social media? The source of the story, or the connection who posted it?

The first hypothesis is based on the assumption I am making that people care about the original source of information when browsing social media. That is, for someone to be automatically primed by a post from a friend, we must accept that one of the first things individuals notice on social media is the name of the person within their network who shared the post, not the original poster. So if TJ Stallbaumer were to share a post from The New York Times, it would be important that observers first encountered the name TJ Stallbaumer, and not

The New York Times—here lies a foundational difference between classic media priming and (social) media priming.

This is a reasonable assumption. Studies in eye-tracking that analyze gaze patterns of subjects as they browse social media have shown there are several paths the eyes take, depending on the sort of information sought by viewer. In an eye-tracking study by Zhou, Piao and Jin (2012), the authors used eye-tracking software to take note of where people were looking as they browsed social media. The experiment was intended to offer insight to educators vying for more involvement in online class and blogging experiments, but applies well to this study because the subjects surveyed were undergraduate students. Therefore, generalizations made from this study are likely to align well with generalizations based on my own research, wherein N=67 undergraduate students at The University of Arkansas in Fayetteville.

The authors found that for students browsing social media who had not entered a specific search query, gaze patterns could be effectively monitored by measuring the amount of time subjects focused on certain aspects of a posting. The first pattern the authors describe is called the user-first gaze pattern, whereby the subject spends the most time discerning who posted the content initially (Zhou et al., 2016, p. 3). The subject spent more time on the name of the original user, and began to browse the content once the source of the post was established.

The authors also identify a keyword-first method of searching social media. This method shows that for students browsing social media, who *did* enter a specific search criterion, users browse the posts available to them, scanning for the keyword they are interested in, spending different amounts of time on keywords that come close to the one they were originally searching for (Zhou et al., 2016, p. 3).

The results of these eye-tracking studies seem to add value to Hypothesis 1 by suggesting

that it is quite possible that people first look to the name of the original poster when trying to establish what value, if any, a social media posting has.

The influence of friends and family members across social networks is well-documented, but the preceding discussion of people acting as primes is significant. It is incumbent upon journalists in the age of digital media to understand how their stories change and grow as social media propagates those stories.

H2: If a social media user spends time reading comments beneath a news article posted to Facebook, then he or she will be more likely to expect aggression and behave aggressively when discussing news online

RQ1: Do regular social media users expect to encounter aggression when discussing politics online?

RQ2: How many students surveyed will report to having "that one friend" on social media?

False Consensus through in-group association

To express my belief that the layout of social media makes automatic priming even easier, some points from the previous section should be expanded on. I will present some research from the domain of eye-tracking that suggests where people look first on social media can be important, and will turn my attention to the ways in which social media platforms, due to their specific layout and unique conversational features, may present more potential priming items with much more speed than traditional media.

In a chapter from the SAGE Handbook of Social Media, Tarleton Gillespie defines platforms in the following way: "By platforms, I mean sites and services that host public

expression, store it on and serve it up from the cloud, organize access to it through search and recommendation, or install it onto mobile devices" (Gillespie, 2017 p. 1). In another slightly less formal definition of what makes social media platforms, Gillespie hits on some of the features that make these platforms unique: "Social media platforms put people at 'zero-distance' from one another, afford them new opportunities to speak and interact, and organize them into networked publics" (Gillespie, 2017 p. 1).

Perhaps the most important parts of the definitions just deposited have to do with what makes social media so social. The platforms host 'public expression,' allow interaction, and afford people the opportunity to organize into networked publics (Gillespie, 2017). These attributes of social media are what afford it its name. But this very organizing structure may be at the heart of what makes it so challenging to discuss political news on social media. Remember, half of all social media users view social media as a place uniquely hostile to discussing political news (Duggan & Smith, 2016). But not all social media users view platforms as hostile. Some welcome the opportunity to connect with others for discussion (Duggan & Smith, 2016).

The issue with connecting for discussion across social media is that the venue again gives rise to concern by creating an environment in which belonging to groups of like-minded individuals can be rewarding (Sunstein, 2007). The creation of echo-chambers across social media platforms is well documented and worthy of our concern. This phenomenon is sometimes referred to as the False Consensus bias (Oshersan et al., 2009) and is defined as "the propensity to believe that one's views are the predominant views, when in fact they are not." The False Consensus bias may have found an easy home on social media, due to the opportunity to organize into networked publics (Gillespie, 2017).

Such organization, though it can facilitate positive conversation, can also be negative in

the realm of political discussion and civic participation. In his book Republic 2.0, Cass Sunstein details some of the issues that have arisen as the filtering of news items on social media increases.

> "The first difficulty includes fragmentation. The problem here comes from the creation of diverse speech communities whose members talk and listen mostly to one another. A possible consequence is considerable difficulty in mutual understanding. When society is fragmented in this way, diverse groups will tend to polarize in a way that can breed extremism and even hatred and violence. New technologies, emphatically the internet, are dramatically increasing people's ability to hear echoes of their own voices and to wall themselves off from others." (Sunstein, 2009, p. 44-45)

In this paragraph, Sunstein accurately and succinctly analyzes a whole host of issues that can arise from individual curation of news items online. The role platforms play in organizing users into self-selected groups is usually thought of as a good, but may instead be giving rise to a dangerous and prevalent thought pattern—that one's ideas so held represent the ideas likely to be held by others. This sort of bias has dangerous consequences, but perhaps the one most concerning to journalists ought be the "considerable difficulty in mutual understanding." (Sunstein, 2007 p. 44).

Examples of the false consensus bias that fall outside mainstream thought patterns often prove poignant. Wjocieszak analyzed (2008) data obtained from online discussion forums of Neo-Nazis and radical environmentalists, to assess the extent to which participants in homogenous online groups could exhibit false consensus. She found that people in the minority tend to overestimate the consensus for their positions by an average of 24 percent, where people in the majority tend to underestimate the consensus for their own positions by an average of 6 percent (Wjocieszak, 2008 p. 789). In this particular example, Wjocieszak found that the Neo-Nazis greatly overestimated the proportion of the population that "thinks America has done too much in pushing for equal rights." Over half of the respondents in the Neo-Nazi group believed

average Americans would be on their side. The radical environmentalists also showed a false consensus bias, but in the opposite direction. Over half of the environmentalists believed that "most people have negative views of their actions" while in reality, only 33 percent of people surveyed reported to thinking negatively of the environmentalist group (Wjocieszak, 2008 p. 788-790).

It should be clear from this brief discussion of the false consensus bias that social platforms as venues for discussion of news may inadvertently give rise to echo-chamber formation. Though this is certainly a large part of the problem in introducing biases across social media, I would like to theorize that other aspects of social media as a venue can prime people without any awareness on their part.

Presentation as a Prime

In 1997, Republican pollster Frank Luntz sent out a 222-page memo called "Language of the 21st century" (Scheufele and Tewksbury, 2010). In the memo, Luntz discussed how certain campaign messages resonated with interpretive schemas, and could help shift attitudes. Luntz wrote, "The effect of the message was not a function of content differences, but of differences in the mode of presentation." The mode of presentation is one of the most serious considerations facing journalists and scholars studying how social media is changing the nature of news. As presentation continues to change, the field must endeavor to understand how changes in the mode of presentation made possible by platforms can affect the ways consumers read and consider news items.

One concept that deserves attention as a function of changing methods of coverage on social media platforms is that of "dosing" (Arendt, 2013). Dosing is one aspect of the media priming phenomenon that suffers from label confusion. It has been called frequency (Iyengar

and Kinder, 1984), length (Appel, 2011), intensity, and duration (Roskos-Ewoldsen et al., 2007). The concept in this research should be thought of as the number of times one is exposed to a potential priming item (Arendt, 2013).

The concept of dosing is invoked to find out what kind of dosing conditions are most conducive to activating biased memory traces, in other words, priming stereotypes. Arendt states (2013) an interesting assumption about doses in media priming: "It is important to note that *media* priming (e.g., newspaper texts and television news) always involves new information. Thus, reading a crime story in a newspaper always increases the mere *availability* of new (episodic) information in memory" (Arendt, 2013 p. 834). Availability of new information is important because it can lead to an immediate and direct prime, by activating pre-existing memory traces. But it can also lead to a spreading activation effect, introducing associatively related concepts.

Arendt tested two types of stereotypical activation, the implicit stereotype and the explicit stereotype. He found that for the activation of implicit stereotypes, defined here as the automatic association in the brain between concepts like 'criminal' and 'foreigner,' the threshold for effect was viewing five or more articles (Arendt, 2013).

Because I'm most interested in the automatic effects of priming across social media as a result of the venue, I will give more attention to the implications of the effect threshold for implicit stereotypes, which Arendt showed (2013) could be activated through viewing coverage. The idea that high dose exposure to media items could stand to prime stereotypes could be intensified by social media, where nearly everything comes in high doses.

According to Castillo et al. (2014), the corporate owned news accounts belonging to major providers such as Al Jazeera America and The New York Times strategically re-share

articles on social media at different times throughout the day, sometimes as many as four times per one story (Castillo et al., 2014). The authors note that this high pattern of re-sharing news items exists across all the major networks with social media presences. However just because something is put on Twitter and Facebook several times a day doesn't necessarily mean the same person is seeing it enough to prime them for stereotypical reactions.

Castillo et al. also identified (2014) two different responses to stories across social media platforms. Breaking news stories peak in traffic shortly after release, but the interest surrounding them decays quickly. Breaking news stories are likely to be viewed more than once by an individual, especially one who follows more than one source of news. The likelihood that an individual will revisit a story receiving updates throughout the day is also high.

It isn't challenging to see how consumption of news across social media, due to the rate at which breaking news is shared, could prime people to biases regarding the relative importance of stories they are reading. It should be noted here that stories relating certain groups to crimes can often fall under the category of breaking news—think about the recent stories emanating from the Trump White House regarding the ban of an entire religion. The number of countenances across social media platforms of specific stories could easily prime implicit stereotypes, like Muslim and terrorist, or could give the social-media news reader a false idea of the importance placed on individual stories.

H3: The higher rate at which regular social media users experience the same story on social media platforms, the more likely they are to attribute importance to those articles, versus articles posted at a lower rate.

RQ1: Do regular social media users notice when breaking news stories on the same subject are posted five or more times in a day.

The important thing to discern is whether social media is changing individuals' baseline evaluative criteria for the importance of news, by making it inherently social. They are being primed by the venue in the sense that every recurring instance of a news piece, whether it be from FOX, then CNN, then the New York Times, serves to strengthen an association in the users' minds between the source, their social network and personal friends, and the ultimate importance of the article. Especially when compared to general interest print newspapers, people are likely to be primed to place a false importance on one story, while ignoring others that may contain equally important information.

Methods

Procedure:

A survey was designed to discern the degree to which regular social media users are influenced by the venue on which they consume news. Participants were asked to complete the survey online, which was designed to gauge their social media habits as well as the reasons they choose to share news and consume news over social media.

Participants were asked about the regularity with which they share and consume news articles online. They were also asked about how regularly they expect to encounter aggression online, especially as it relates to reading or engaging in commentary appearing beneath news articles.

The goal of the survey is to validate the stated research questions, by showing that regular users of social media have the same sorts of experiences as those stated in this thesis.

Data was collected between the dates of April 1 and April 14, 2017**.** Online survey software Qualtrics was used to collect the data.

Participants:

Participants were undergraduate students at the University of Arkansas in Fayetteville, Arkansas (N=57). Participants were between the ages 18 and 24, which seems especially appropriate for a survey seeking answers regarding social media use. According to the Pew Research Center, 18-29 year olds are the group most likely to receive news online, with 51 percent reporting doing so "most often" (Matsa & Lu, 2016).

The majority of the participants were journalism majors (N=49) who were recruited via the primary researcher's Fundamentals of Journalism writing lab. Participants were offered five extra points for taking the survey, which utilized a double-blind method of obtaining participants' names. Students who completed the survey were asked to submit a screenshot showing the survey completion screen, which was then sent to the Graduate Assistant assigned to the journalism office on the UA campus.

Measurement of Variables:

Four variables were operationalized using self-designed items presented in the survey. The design was presumed to be relevant to the hypotheses being tested, while also being of appropriate ease and requiring an investment of time short enough to ensure a relevant sample size could be obtained.

Priming Effects Variable: The priming effects variable was measured by student responses to two items: "I see news articles about the same topic posted to social media at least five times during the course of the day"; "I see breaking news articles posted to social media covering the same topic at least five or more times over the course of a day"; These items were measured on a 5-point Likert-type scale ranging from "strongly agree" (5) to "strongly disagree" (1). The scale mean for these items was acceptable, at 3.85.

Aggression Variable: The aggression variable was measured by student responses to four items. "How likely are you to encounter aggression when discussing social media online?" ; "People are more aggressive when discussing news articles online" ; "During times of high political engagement, such as primary season and presidential election years, I expect to encounter aggression on social media with more regularity." These items were measured on a 5-point Likert-type scale ranging from "strongly agree" (5) to "strongly disagree" (1). The scale mean for expecting aggression on social media was quite high, at 4.4. Also worth noting here is that the questions intended to assess the aggression variable returned the most uniform responses. In the item asking students how likely they were to encounter aggression when discussing political processes online, not a single student said he or she was even moderately unlikely to encounter aggression when discussing politics. As predicted, the results of the research suggest that social media is a uniquely hostile environment for the discussion of news items.

Reading Commentary Variable: The reading commentary variable was measured by student responses to seven items**:** "I make a point of reading the comments beneath a news article shared to Facebook." ; "I make a point of not reading the comments beneath a news article shared to Facebook." ; "How likely are you to read the comments section beneath a news article shared on Facebook, prior to reading the article itself."; "I believe the comments section beneath a news article on Facebook is beneficial in helping me to understand the story."; "I am less likely to read a news article beneath which a 'comment war' has broken out." These items were measured on a 5-point Likert-type scale ranging from "strongly agree" (5) to "strongly disagree" (1). One item was arranged on a 5-point Likert-type scale ranging from "extremely likely" (5) to "extremely

unlikely" (1).

Personal Connection Variable: The personal connection variable was measured by student responses to five items: "When observing a news article on social media, I am more likely to notice the name of the original poster (James Smith) before the source of the story (The New York Times)" ; "I am more likely to attribute credibility to news articles that were shared on social media by someone with whom I am personal friends." ; "I am more likely to view political posts when they are made by someone who I consider a personal friend." ; "I am more likely to read the story associated with a news article if I know the original poster." These items were measured on a 5-point Likert-type scale ranging from "strongly agree" (5) to "strongly disagree."

Results

Hypothesis 1 proposed that an individual who sees a post containing a news story shared to social media by someone he knows personally is more likely to regard the post as a reflection on the poster. Results indicated that, as predicted, those individuals who reported to seeing articles with enough frequency to be primed were more likely to evaluate a post based on the poster. A Pearson product-moment correlation was performed to measure the relationship between the relevant variables intended to assess priming and those intended to assess the degree of the prime. The correlation was found by comparing the results between items three and four. Results showed that r=.88. A positive correlation here means that as priming effects increase, so too does the value placed on connectedness to the original poster. The degree of correlation is represented by the magnitude of the number, where .88 is an extremely strong relationship. The scale mean of the two items used to assess priming was 3.85 with a standard deviation of 86.

RQ1 asked what regular social media users report to noticing first about news articles shared to social media. Item 17, which directly addressed this question, stated it in the following way: "When observing a news article on social media, I am more likely to notice the name of the original poster (James Smith) before the source of the story (The New York Times)." The responses to this item were assessed via a Likert-Type scale, where strongly disagree was weighted one (1), and strongly agree was weighted five (5). The scale mean of this question was 3.3 with a standard deviation of.79, meaning there was slightly more agreement to this item than disagreement. However it is worth noting, the highest number within the question fell to students who "mostly agreed" with the statement, where 22 of 57 respondents, or 38 percent, reported to seeing the original poster before the source of the story.

Hypothesis 2 stated that if a social media user spends time reading comments beneath a news article posted to Facebook, then he or she will be more likely to expect aggression and behave aggressively when discussing news online. The scale mean for all items related to expectation of aggression was significant, where the scale mean was equal to 4.4. Especially of interest item six, regarding the expectation of aggression in discussions of politics on Facebook—where the scale mean was equal to 4.72 and standard deviation was 1.04. Not a single respondent in the survey disagreed, even moderately, that Facebook presents a uniquely hostile venue to the discussion of politics.

A smaller number than was expected reported to reading commentary on Facebook (N=37) at 60 percent, while some students said they were equally likely and unlikely to read commentary (N= 17) at 40 percent. However, of those students surveyed, a very high number reported to expecting aggression (N=45) at 91 percent, while a much smaller percentage of students said they neither expected nor did not expect aggression (N=12). This means that fully

100 percent of students who read the commentary have come to expect aggression in their counterparts while using Facebook to discuss news articles. However, a Pearson's Correlation Coefficient comparing people who were unlikely to read commentary with people who were likely to encounter aggression, an r value of .52 revealed that even people who choose to actively avoid commentary have come to expect aggression, meaning hypothesis 2 was not confirmed.

RQ1, which was intended to assess the aggression variable directly, asked whether or not regular social media users expect to encounter aggression. This question was designed to be answered directly via the survey, where item seven asked students to rate their agreement with the following: "People are more aggressive when discussing political news on social media." This question was confirmed, as a scale mean of 4.72 revealed that a vast majority of respondents expect aggression online. There were no students who disagreed that people are more aggressive on social media. RQ2 asked how many students would report to having "that one friend" on social media, who was always or willing to enter the fray when comment wars broke out. This question returned the highest scale mean across the study, with a scale of 4.72. Not a single student said they had no such friend.

Hypothesis 3 stated that the higher rate at which regular social media users experience the same story on social media platforms, the more likely they are to attribute importance to those articles, versus articles posted at a lower rate. To test this, the results of items four and five, which directly related to intensity of prime were compared to items two and three, questioning perceived importance of articles. A Pearson's correlation coefficient comparing the potential for primes to exist against the items used to assess the importance of the articles found that r was equal to .81, meaning that as the potential for priming increases, so too does the likelihood that students viewing articles with more regularity are likely to place more weight on the importance

of those articles. RQ1 asked whether students regard stories posted at a higher rate as important as those posted at a lower rate. Item five used a Likert-Type scale, and posed the statement "articles posted several times a day are more important to know about than those posted less." The scale mean for the question was 3.3, meaning students fell almost in the exact middle regarding their agreement to that item.

Discussion

The present study sought to answer whether newsreaders on social media can be primed for biases resulting from sourcing, frequency and aggression. It was predicted that knowledge of the original poster could prime biases in readers who source their news from social media, as well as that the presence of aggression in posts would predispose people to expect aggression at a higher rate, and to be primed to act aggressively. Finally, it was predicted that people who saw some articles at higher frequency would be led to believe, due to the amount of exposure, that those articles were more important than others. The ensuing discussion includes several conclusions of merit, but it should be noted that one of the study's greatest limitations may be the size and makeup of the sample. This research, and the conclusions drawn, should be considered valuable, but in the scope of a pilot study.

The first hypothesis seems to be significant through a Pearson product-moment correlation, but carries particular weight not only for this study, but as a promising avenue of further research. The potential that people trust news subliminally as a reflection on the original poster, and not the actual source, could carry enormous implications for modern journalism. The time-honored method of judging journalistic work—on its integrity, accuracy, or excellence—may be slipping quickly through the collective grasp, as people begin to place less weight on the

source of the reporting, and more weight on their connection on social media.

Hazard-Owen (2017) wrote based on a study of 1,489 U.S. adults that the majority of people taking part in a pilot survey announced with confidence that when looking at news, they first notice the original source of reporting. But a study involving a fake Facebook post showed that those who took part in the study reflected a greater deal of trust in stories originating from a source they knew personally, even though the associated story and headline were from fake news sources. My own research has only confirmed this to a deeper level. I also take it to be significant that amongst students of the craft of journalism, the bias continues. It's worth noting that beginning journalism students are instructed in the art of news judgment, which ought to contain a healthy dose of skepticism, especially in an age where "fake news" is a regular topic of conversation. In the Fundamentals of Journalism writing lab I teach at The University of Arkansas, students are required to analyze news stories on a weekly basis. The first point of their consideration is required to be the source of the story—where did it come from? Who reported it? But of the students surveyed (N=57), 86 percent were majoring in journalism, and 100 percent are in the class stressing such consideration of sourcing. Despite explicit instruction in this area, results of the survey revealed the level to which students openly reported to giving more credibility to friends and acquaintances when sourcing news on social media. I expected results may be unfavorable for this question, because students are being trained to cultivate news judgment, and may consider answering the question affirmatively to be an affront to their craft. Alas, no such results were reflected in the survey. Journalists, aggregators, and people for whom balance in consideration of value judgments is important should be particularly troubled by these findings, as they represent a move away from being able to establish a common baseline of fact, found through the norm of objective reporting in American journalism.

The second hypothesis provided perhaps the strongest results. Though research has confirmed that social media as a venue is considered aggressive (Duggan & Smith, 2016), the results of this research have endeavored to go a step further, by suggesting that social media is *uniquely aggressive*—not only in terms of the conversations that take place there, but in terms of the type of people who regularly engage in such conversations. The basis for the second hypothesis, which stated that if a social media user spends time reading comments beneath a news article posted to Facebook, then he or she will be more likely to expect aggression and behave aggressively when discussing news online, was formed through one of the seminal studies on media priming (Josephson, 1987), which suggested that in-group aggression could raise levels of aggression even amongst people not traditionally considered aggressive (Josephson, 1987).

I was particularly interested in ascertaining the degree to which people who read and discuss news online believe that an in-group member of their online social circle fits the profile of expressing overt aggression. Remember that Leyens and Dunand found (1991) that the expectation of aggression alone was enough to cause one to act aggressively. One item on the survey was aimed at posing the question in a way my target audience could easily understand. On a Likert-Type scale, item nine said the following: "I have 'that one friend' on social media, who is always willing to stoke the fire of aggression in comment wars."

An astounding 73 percent of respondents "strongly agreed" to the question, which returned the second highest scale mean for agreement of any single item on the survey, where scale mean was equal to 4.48. Such strong agreement could indicate several things, which may all stand as promising avenues for future research.

The first indication I take from the prevalence of priming aggression is that the theory

regarding the possibility of people acting as primes, while not directly tested due to this limited research, merits further investigation. The prevalence of the belief amongst those surveyed that they have "that one friend" points to the possibility that social media flame wars are such common occurrences, almost every social circle believes some member to be willing to act with overt aggression when discussing news items online. The implications of this result are far reaching.

It may be possible, should further study ever permit, to use the concept of social media priming to tackle the question of the immense polarization that exists online. Another item of intense interest in the aggression section of the survey asked students to rate their agreement with the following item: "During times of high political engagement, such as primary season and election years, I expect to encounter aggression on social media with more regularity."

This item returned the highest scale mean of any posed in the entire survey, with a scale mean for agreement on a Likert-Type scale at 4.73. 75 percent of those surveyed agreed strongly with the statement, while another 21 percent agreed somewhat. A total of two people reported to neither agreeing nor disagreeing. Astoundingly, the item encountered absolutely no disagreement.

Several parts of the wording of this item were chosen deliberately, and deserve further consideration. The first is that the item asked about students' *expectations* of aggression—a word chosen deliberately to give weight to Leyens and Dunand's original suggestion (1991) that the expectation of aggression could prime it further. In addition, the words "with more regularity" were quite deliberate as well. Recall that Duggan & Smith wrote (2016) that 50 percent of social media users surveyed by the Pew Research Center reported that discussions about politics and the news on social media are more angry than those that may occur anywhere else. So not only

are the conversations believed to be more aggressive, but the results of my research suggest that people believe them to occur with even more regularity during times of high political engagement.

This should be considered significant, especially when viewed through the lens of the other items relating to aggression, particularly the overarching belief that there exists an in-group member in most social media circles willing to enter the fray should comment wars arise. Taken in tandem, these results seem to point to priming aggression as one possible reason for the noted uptick in political polarization felt so strongly across the country. If conversations about politics are had on social media that regularly end in overt aggression, it could be easy to see how a vision of some objective "other side" full of "idiots" or "cavemen" could emerge with rapid force. As echo-chambers continue to form and then engage in battle with one another, the findings presented in this research should be of special consideration to scholars and journalists, hoping to understand how stories of a sensitive nature, even when reported on appropriately, can quickly devolve into "fake news," or the subject of intense partisan bickering.

One final thing of note regarding my consideration of aggression, is that the results of the Pearson product-moment correlation revealed the relationship between reading commentary and expecting aggression was not large enough to indicate the results were significant. However, I believe the failure of the hypothesis can be attributed to something I didn't see coming: The relationship of the commentary variable to the expectation of aggression, while it did exist, was not related strongly enough because the expectation of aggression on social media exists so strongly even *without* the actual introduction of commentary. The results of the survey indicated that 37 students read commentary either before or after encountering a news piece, while 19 students reported to making a point of *intentionally avoiding* commentary beneath news articles

posted to Facebook. However, of those students, 45 reported to strongly expecting aggression, while there were only 12 students who reported to not being sure, or to moderately not expecting aggression. I believe the reason the Pearson's Correlation failed to show a significant match is because the reading commentary variable is not necessary to give rise to the expectation of aggression. I feel confident saying the variable helps give rise to aggression, but as results indicated, commentary need not exist for aggression to be expected on social media.

The third and final hypothesis suggested that the frequency with which news articles are posted on social media could influence the perceived importance of those articles. The survey results were mixed, but the results of a Pearson Correlation suggested the variables of seeing articles more than five times and perceived importance were correlated to a strong degree. The most interesting thing to note regarding the answers from students on the items intended to address these variables was the perceived difference in the importance of breaking news stories, which roughly 80 percent of students reported to seeing with enough regularity to be primed. 29 students in the sample agreed to some degree that breaking news stories covering the same topic are more important to know about than stories shared only once, while the item not containing the breaking news caveat revealed that an equal number of students believed articles shared on social media only one time were not as important to be aware of.

This result should be of particular interest to publishers and journalists who wish to understand more about the perceived importance of their pieces, especially as they relate to sharing and posting stories online. Remember, Castillo et al. (2014) suggested that breaking news stories peak in importance immediately after release, when they are shared heavily, but that interest surrounding the stories then decays rather quickly (Castillo et al., 2014). This suggestion was confirmed by the results of the survey, which showed that students view breaking

news pieces as more important to be aware of, but also of note was that the survey item asking about frequency of breaking news was almost always above the minimum number of views needed to reliably say priming could be taking place. The degree of sharing surrounding breaking news on social media is so high, that almost every student reported to seeing breaking news pieces more than five times. This isn't particularly surprising in its own right; when taken in context from the information provided by the first hypothesis, the question of frequency surrounding breaking news stories becomes much more important to answer.

If it is true that people automatically associate certain stories as a reflection of the poster, and not the original source, then breaking news may be in particular danger. Not only does hypothesis one suggest that personal evaluation is driving news choice on social media, but the results of hypothesis three suggest that breaking news stories are shared with enough frequency to prime people to believe that some stories may be more important than others. This could give rise to a perfect storm for the continuation of echo-chamber creation, by leading groups to share and re-share articles based on two issues—the poster within their circle, and the frequency with which the post has been shared—neither of these considerations reflecting any traditional news values.

This seems to me to be of particular importance, because it points to the possibility that the baseline evaluative criteria people are developing for sharing news across social media may have far less to do with the nature of the news, and far more to do with how they feel about the person who shared it, or how many times is has popped up on their newsfeed.

When compared to classic general interest intermediaries, specifically the print newspaper or magazine, this finding should be viewed as especially troubling. There was a time when news was given relatively equal weight, at least insofar as it appeared once and was

homogeneously sourced. The issue arising as a result of the discussion of news across social media is one of misplaced importance, where stories are too easy to distort, aggression often overcomes reason, and importance is assessed via all the wrong metrics. Though I'm far from calling social media the end of objective journalism as we know it, I believe the results of the present study suggest that a dangerous shift may be occurring in terms of news readership. By making news a product of group think, social media may be fundamentally altering the relationship between readers and publishers, causing importance to be placed where it ought not be, and giving power to individuals within networks, instead of to those trained as Gatekeepers.

Conclusion

This study began as a method of investigating whether or not social media is changing people's baseline evaluative criteria for the news they read on Facebook, Twitter and other social media.

For a long time, it has been assumed that people seek fairness and balance in the reporting of news. The advent of digital media, particularly social media, has called this assumption into question. The importance of this line of research lies in the revelation that the venue of presentation of one's news may be automatically predisposing them to biases, based not on the nature or value of the news they are consuming, but instead based solely on the manner of their consumption. Further research should endeavor to examine more about the intensity and duration of potential priming items on social media, especially in relation to studying the intensity of personal connections as primes.

Where one's social circle determines what news they see, how much of it they see, and whether or not they consider it credible, the value of connectedness and an ocean of available information seem to have become the subjects of a sort of paradox.

In an age where the term “citizen journalist” has come to carry great weight, a new thought ought emerge amongst those concerned with protecting the vital function of journalism: Social media may be making citizen journalists of anyone who can find the “share” button.

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Appendix

Office of Research Compliance
Institutional Review Board

March 16, 2017

MEMORANDUM

TO:	TJ Stallbaumer Patsy Watkins
FROM:	Ro Windwalker IRB Coordinator
RE:	New Protocol Approval
IRB Protocol #:	17-02-496
Protocol Title:	*(Social) Media Priming: The Role of Social Media in Priming Biases and Aggression in Online News Readership*
Review Type:	☒ EXEMPT ☐ EXPEDITED ☐ FULL IRB
Approved Project Period:	Start Date: 03/16/2017 Expiration Date: 03/15/2018

Your protocol has been approved by the IRB. Protocols are approved for a maximum period of one year. If you wish to continue the project past the approved project period (see above), you must submit a request, using the form *Continuing Review for IRB Approved Projects*, prior to the expiration date. This form is available from the IRB Coordinator or on the Research Compliance website (https://vpred.uark.edu/units/rscp/index.php). As a courtesy, you will be sent a reminder two months in advance of that date. However, failure to receive a reminder does not negate your obligation to make the request in sufficient time for review and approval. Federal regulations prohibit retroactive approval of continuation. Failure to receive approval to continue the project prior to the expiration date will result in Termination of the protocol approval. The IRB Coordinator can give you guidance on submission times.

This protocol has been approved for 100 participants. If you wish to make *any* modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 109 MLKG Building, 5-2208, or irb@uark.edu.

109 MLKG • 1 University of Arkansas • Fayetteville, AR 72701-1201 • (479) 575-2208 • Fax (479) 575-6527 • Email irb@uark.edu

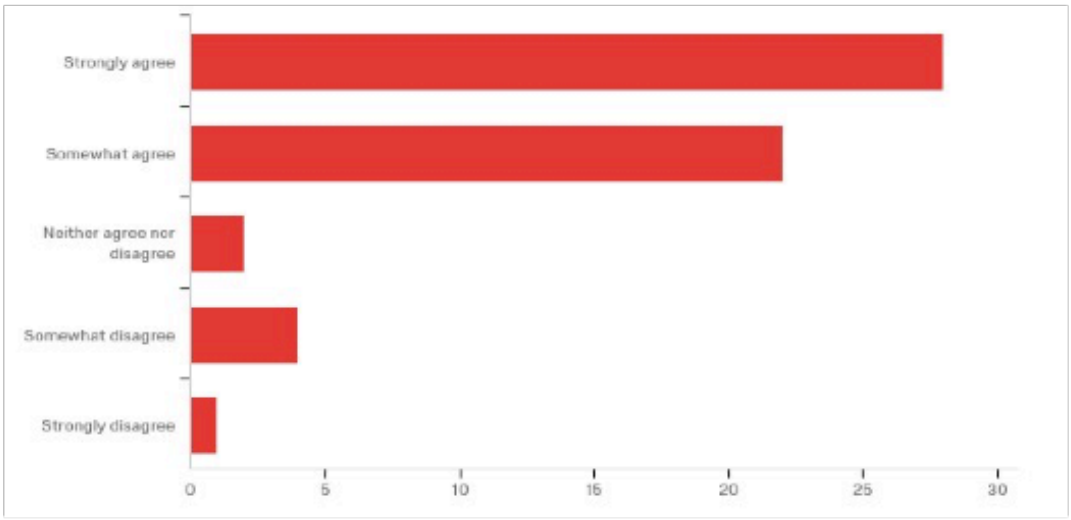
Default Report

Social Media Use Survey

April 17th 2017, 1:44 pm MDT

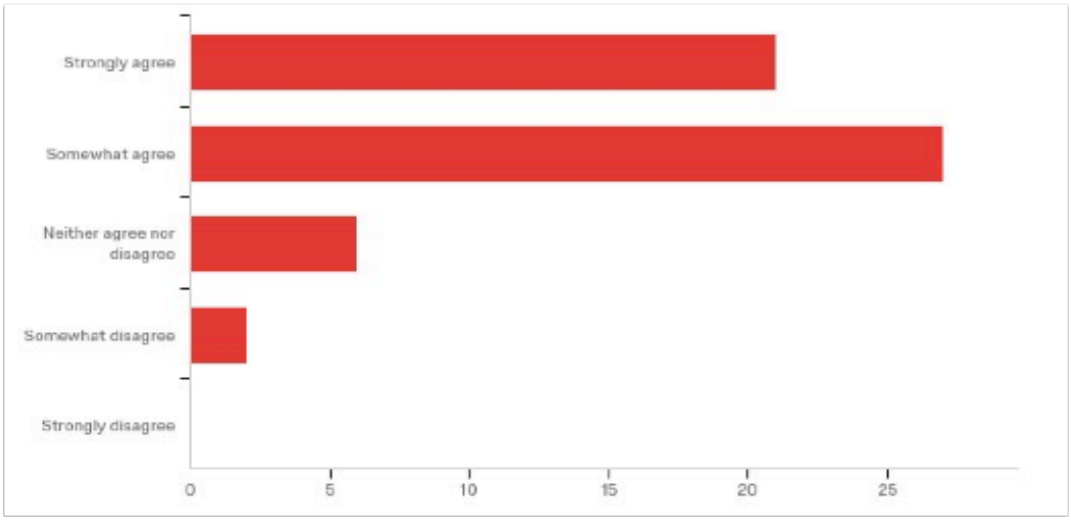
0 - Social media is the primary place I encounter news articles.

#	Answer	%	Count
1	Strongly agree	49.12%	28
2	Somewhat agree	38.60%	22
3	Neither agree nor disagree	3.51%	2
4	Somewhat disagree	7.02%	4
5	Strongly disagree	1.75%	1
	Total	100%	57

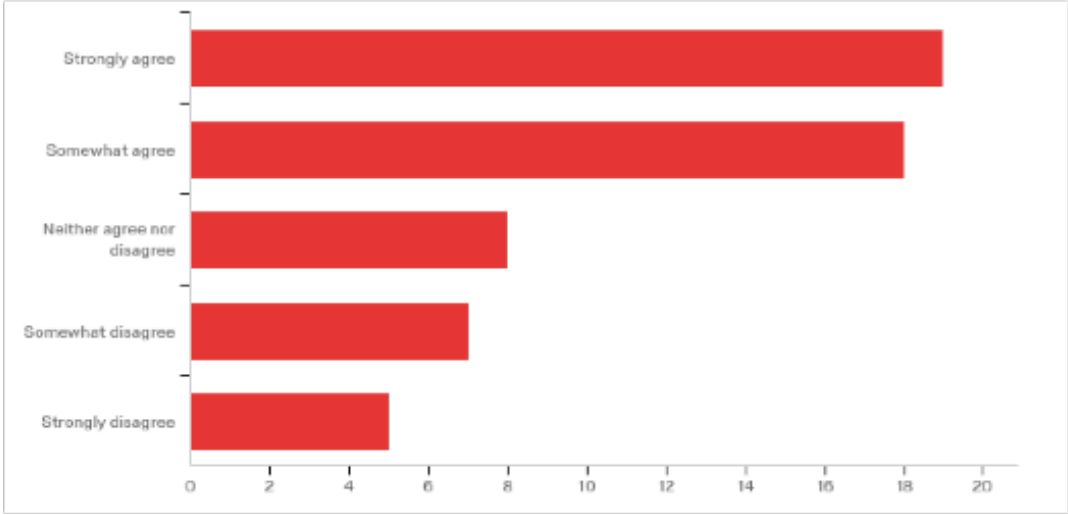


1 - I enjoy reading news articles linked from social media.

#	Answer	%	Count
1	Strongly agree	37.50%	21
2	Somewhat agree	48.21%	27
3	Neither agree nor disagree	10.71%	6
4	Somewhat disagree	3.57%	2
5	Strongly disagree	0.00%	0
	Total	100%	56

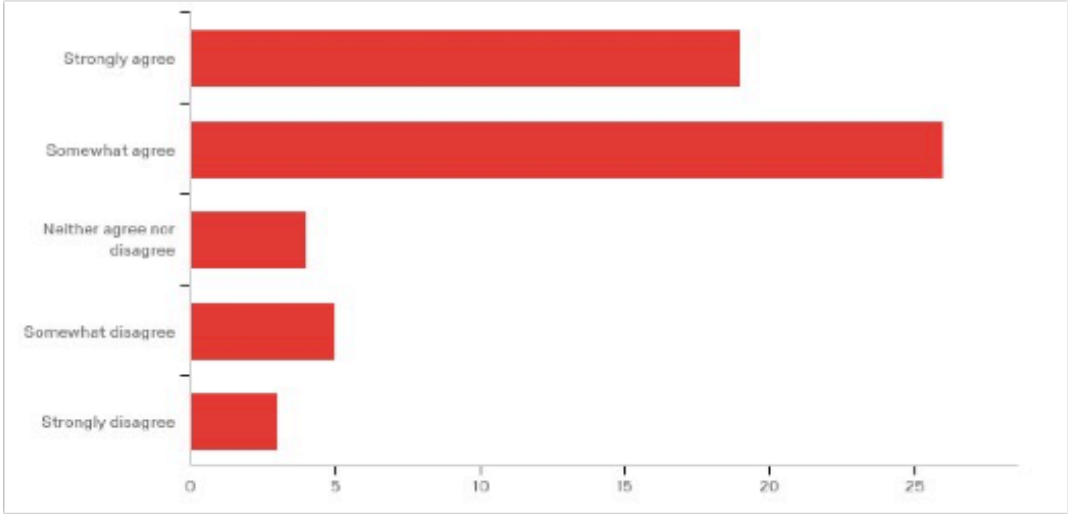


2 - I see news articles about the same topic (Guns on campus, Russia) posted to social media at least five times during the course of a day.



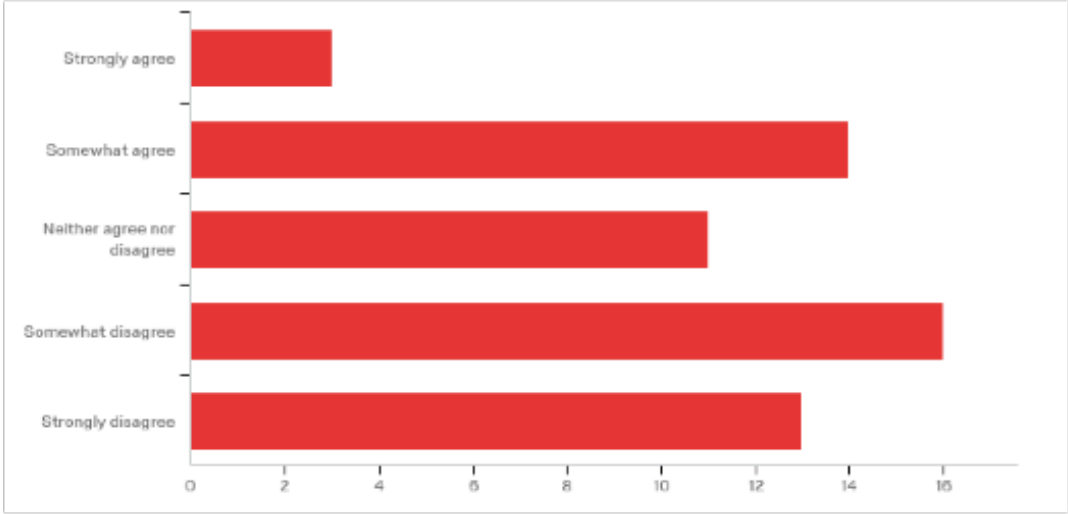
#	Answer	%	Count
1	Strongly agree	33.33%	19
2	Somewhat agree	31.58%	18
3	Neither agree nor disagree	14.04%	8
4	Somewhat disagree	12.28%	7
5	Strongly disagree	8.77%	5
	Total	100%	57

3 - I see breaking news stories posted to social media covering the same topic (e.g. Muslim ban) at least five or more times during the course of a day.



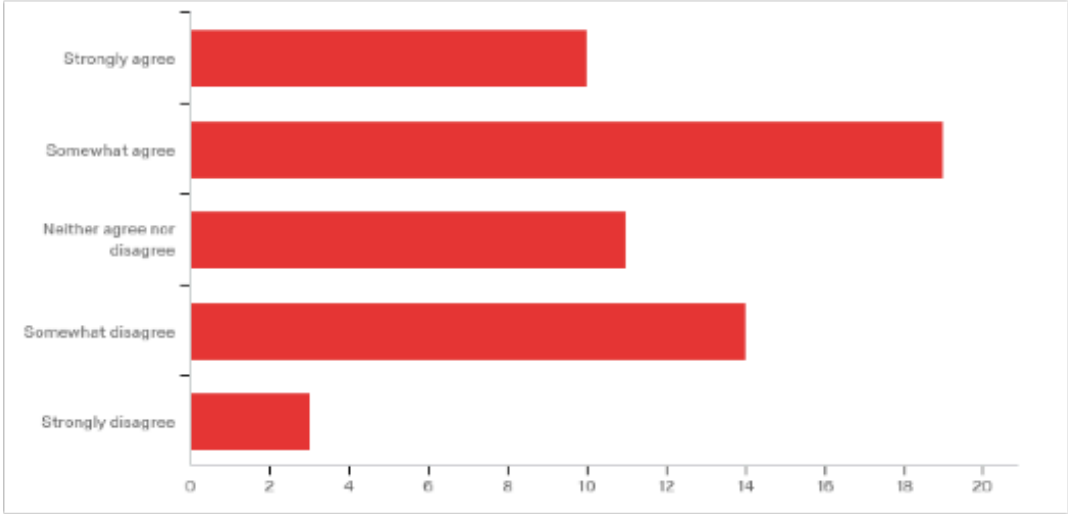
#	Answer	%	Count
1	Strongly agree	33.33%	19
2	Somewhat agree	45.61%	26
3	Neither agree nor disagree	7.02%	4
4	Somewhat disagree	8.77%	5
5	Strongly disagree	5.26%	3
	Total	100%	57

4 - Articles that are shared on social media only once are not as important to know about as articles that are shared several times.



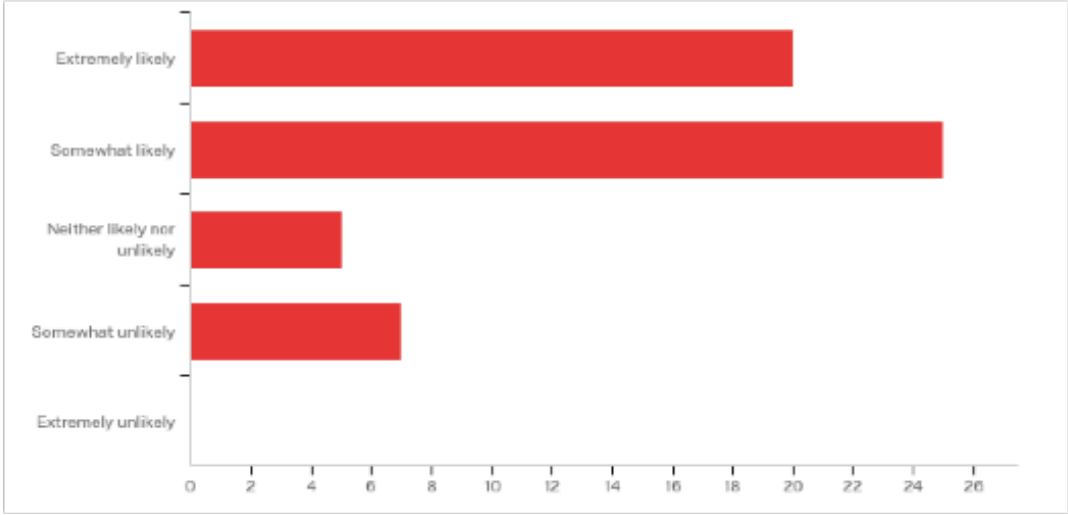
#	Answer	%	Count
1	Strongly agree	5.26%	3
2	Somewhat agree	24.56%	14
3	Neither agree nor disagree	19.30%	11
4	Somewhat disagree	28.07%	16
5	Strongly disagree	22.81%	13
	Total	100%	57

5 - Articles that are shared on social media covering the same topic (e.g. the environment, healthcare law) that I see posted several times a day are more important to know about.



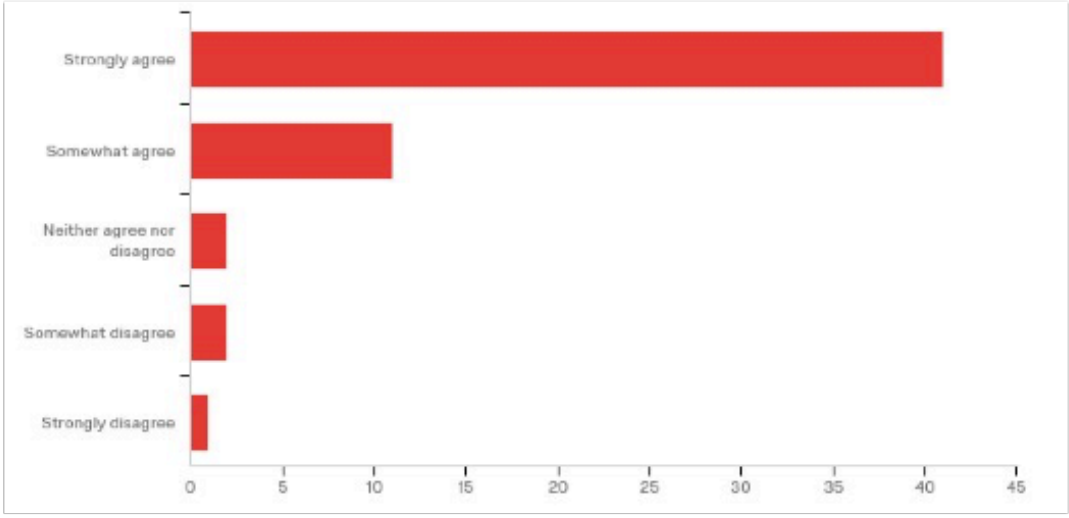
#	Answer	%	Count
1	Strongly agree	17.54%	10
2	Somewhat agree	33.33%	19
3	Neither agree nor disagree	19.30%	11
4	Somewhat disagree	24.56%	14
5	Strongly disagree	5.26%	3
	Total	100%	57

6 - How likely are you to encounter aggression when discussing news articles on social media?



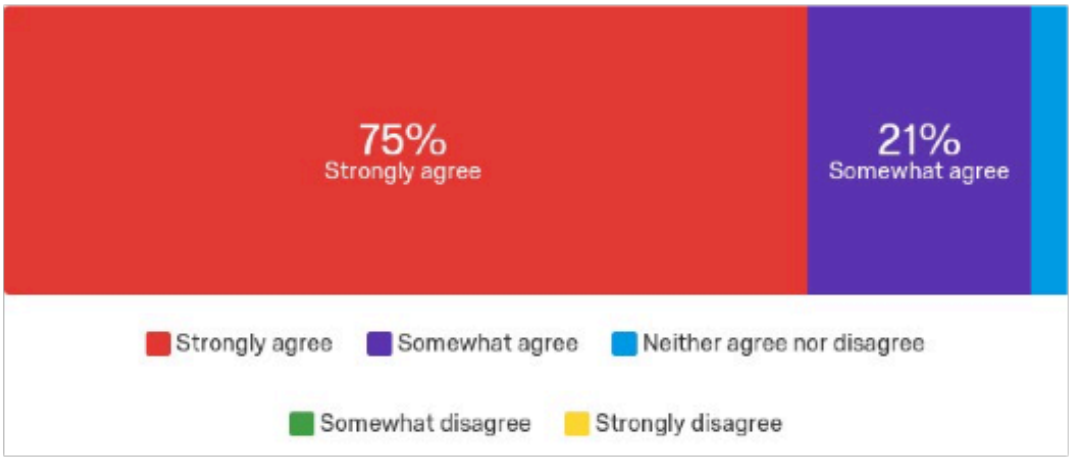
#	Answer	%	Count
1	Extremely likely	35.09%	20
2	Somewhat likely	43.86%	25
3	Neither likely nor unlikely	8.77%	5
4	Somewhat unlikely	12.28%	7
5	Extremely unlikely	0.00%	0
	Total	100%	57

7 - People are more aggressive when discussing news on social media.



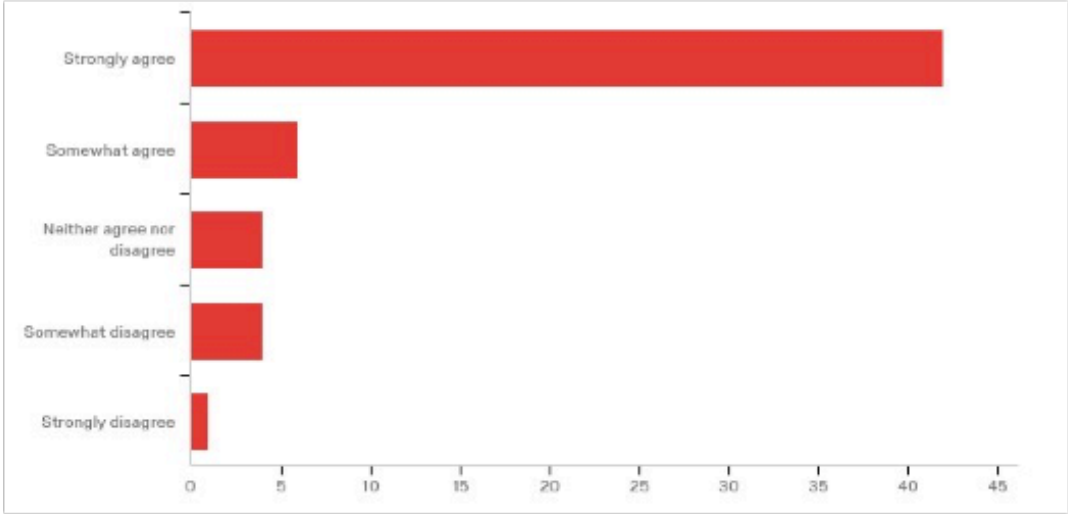
#	Answer	%	Count
1	Strongly agree	71.93%	41
2	Somewhat agree	19.30%	11
3	Neither agree nor disagree	3.51%	2
4	Somewhat disagree	3.51%	2
5	Strongly disagree	1.75%	1
	Total	100%	57

8 - During times of high political engagement, such as primary season and election years, I expect to encounter aggression on social media with more regularity.



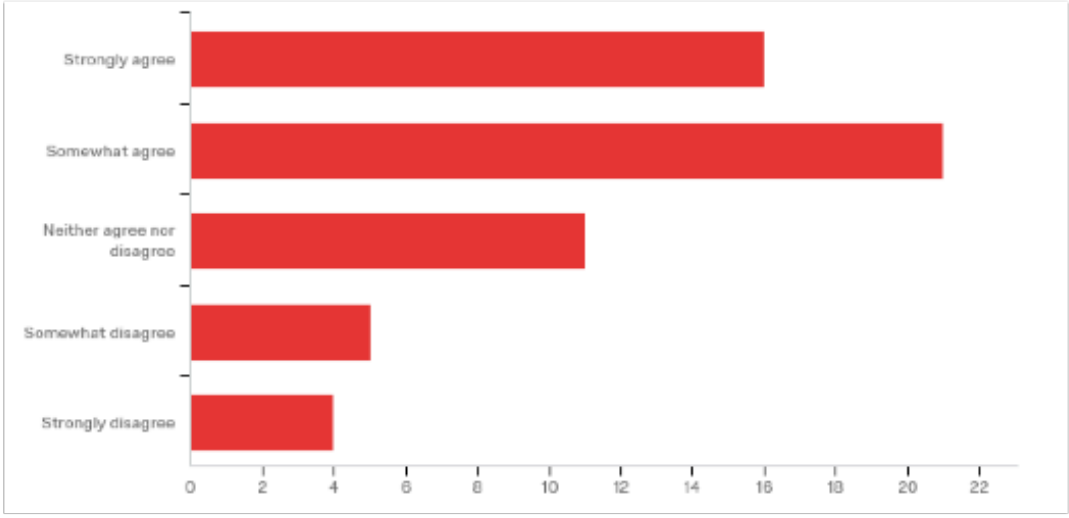
#	Answer	%	Count
1	Strongly agree	75.44%	43
2	Somewhat agree	21.05%	12
3	Neither agree nor disagree	3.51%	2
4	Somewhat disagree	0.00%	0
5	Strongly disagree	0.00%	0
	Total	100%	57

9 - I have "that one friend" on social media, who is always willing to stoke the fire of aggression in comment wars.



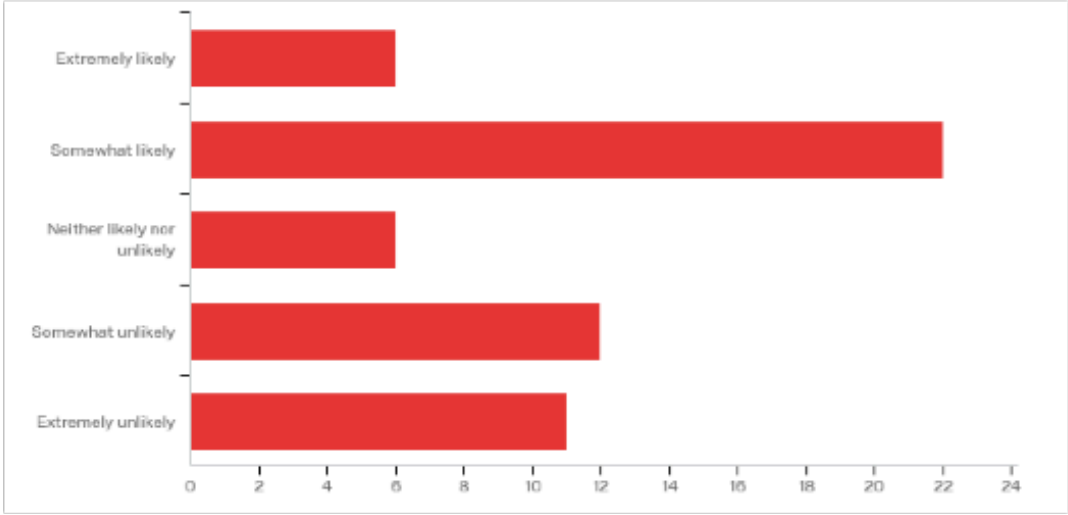
#	Answer	%	Count
1	Strongly agree	73.68%	42
2	Somewhat agree	10.53%	6
3	Neither agree nor disagree	7.02%	4
4	Somewhat disagree	7.02%	4
5	Strongly disagree	1.75%	1
	Total	100%	57

10 - I make a point of reading the comments beneath a news article shared to Facebook.



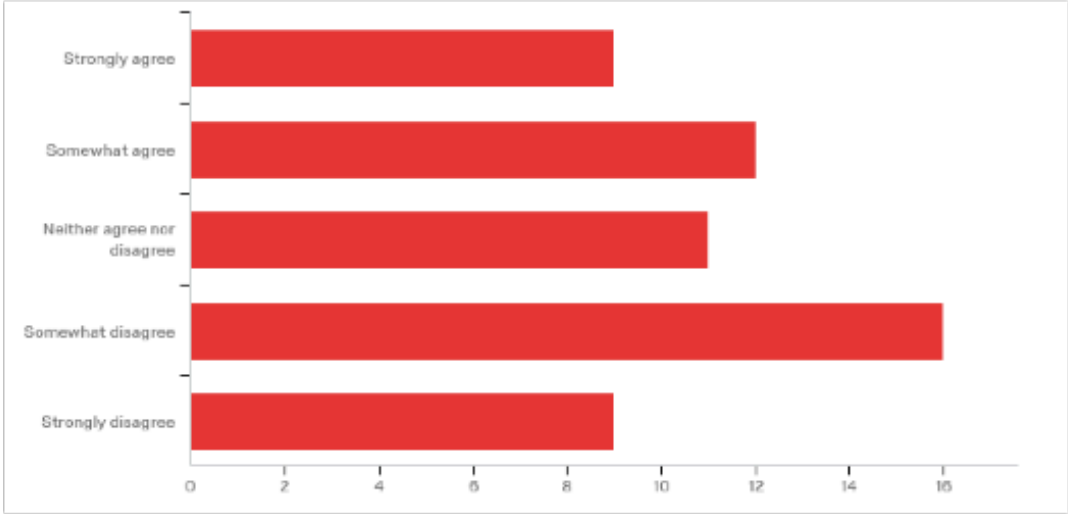
#	Answer	%	Count
1	Strongly agree	28.07%	16
2	Somewhat agree	36.84%	21
3	Neither agree nor disagree	19.30%	11
4	Somewhat disagree	8.77%	5
5	Strongly disagree	7.02%	4
	Total	100%	57

11 - How likely are you to read the comments section beneath a news story prior to reading the news story itself?



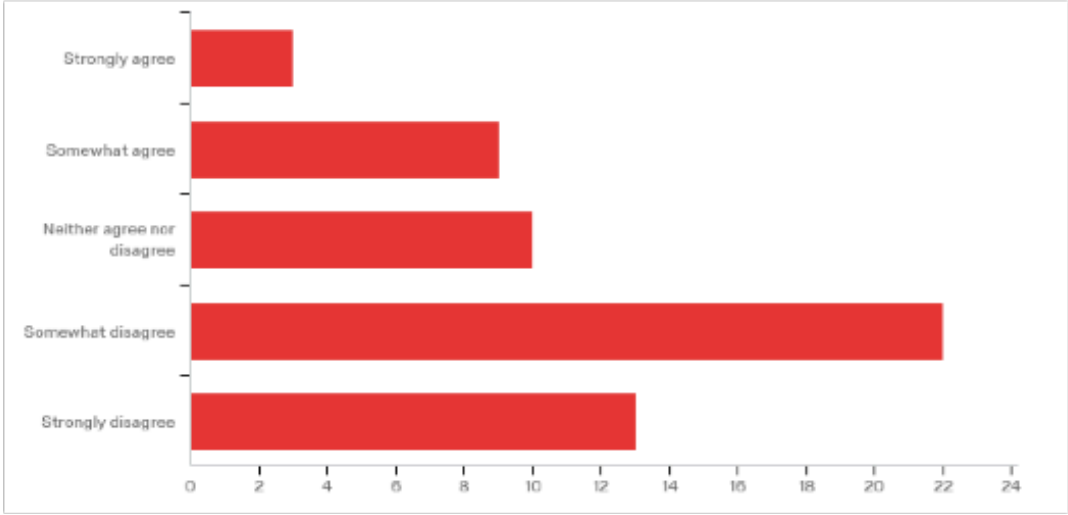
#	Answer	%	Count
1	Extremely likely	10.53%	6
2	Somewhat likely	38.60%	22
3	Neither likely nor unlikely	10.53%	6
4	Somewhat unlikely	21.05%	12
5	Extremely unlikely	19.30%	11
	Total	100%	57

12 - I believe the comments section beneath a news story on Facebook is beneficial in helping me understand the story.



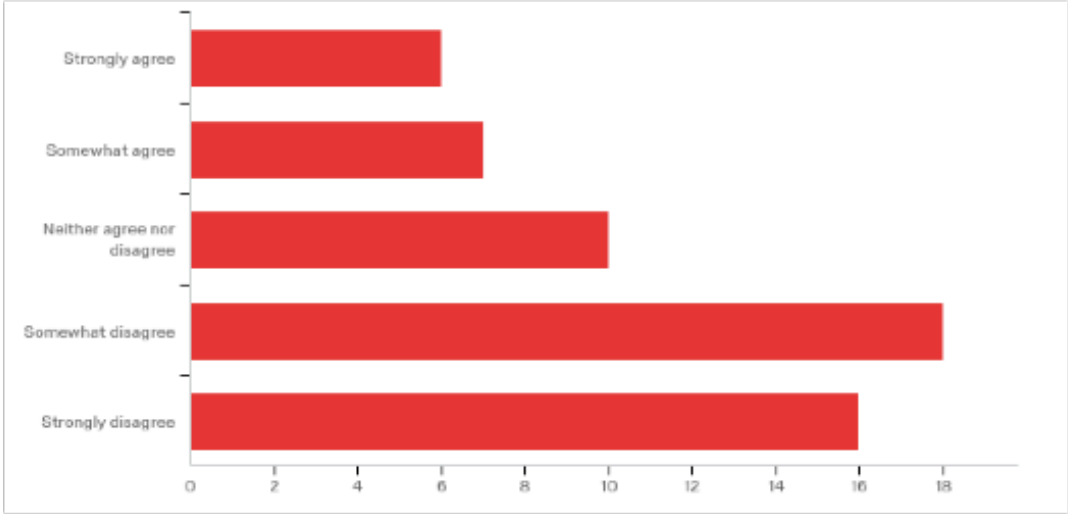
#	Answer	%	Count
1	Strongly agree	15.79%	9
2	Somewhat agree	21.05%	12
3	Neither agree nor disagree	19.30%	11
4	Somewhat disagree	28.07%	16
5	Strongly disagree	15.79%	9
	Total	100%	57

13 - Reading comments associated with a news article shared on Facebook usually makes me feel happy or better informed.



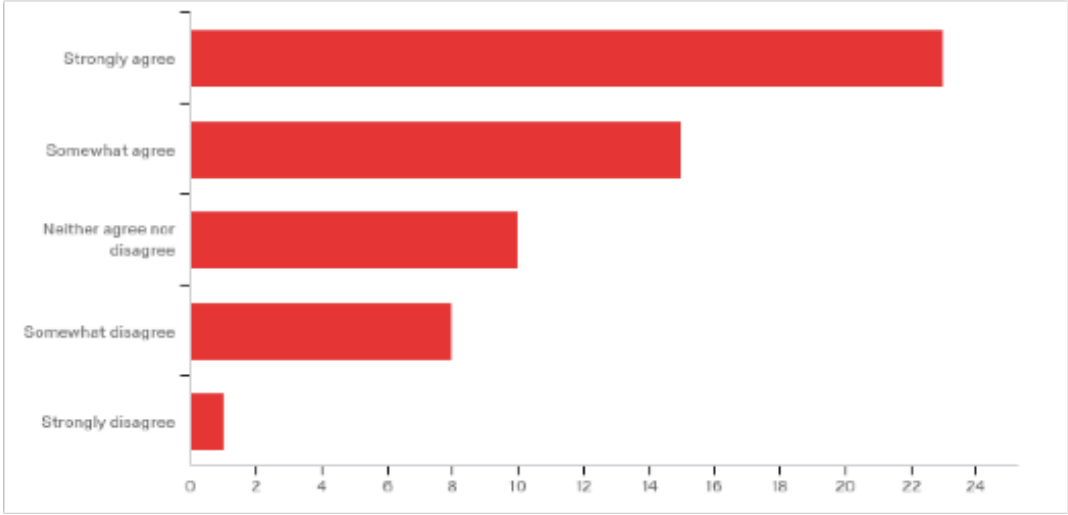
#	Answer	%	Count
1	Strongly agree	5.26%	3
2	Somewhat agree	15.79%	9
3	Neither agree nor disagree	17.54%	10
4	Somewhat disagree	38.60%	22
5	Strongly disagree	22.81%	13
	Total	100%	57

14 - I am less likely to read a news article on social media beneath which a "comment war" has broken out.



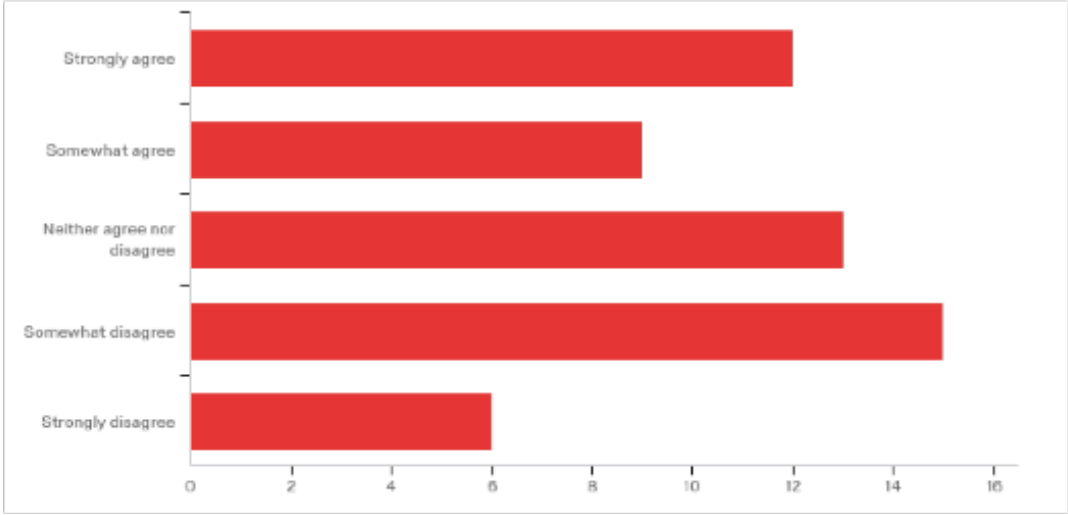
#	Answer	%	Count
1	Strongly agree	10.53%	6
2	Somewhat agree	12.28%	7
3	Neither agree nor disagree	17.54%	10
4	Somewhat disagree	31.58%	18
5	Strongly disagree	28.07%	16
	Total	100%	57

15 - Reading comments associated with a news article on Facebook usually makes me feel annoyed or frustrated.



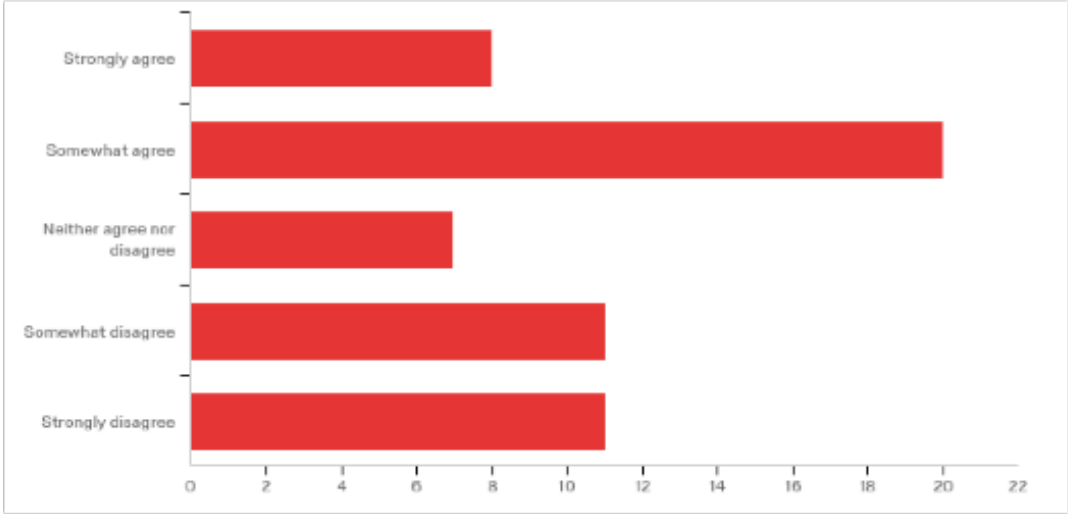
#	Answer	%	Count
1	Strongly agree	40.35%	23
2	Somewhat agree	26.32%	15
3	Neither agree nor disagree	17.54%	10
4	Somewhat disagree	14.04%	8
5	Strongly disagree	1.75%	1
	Total	100%	57

16 - When observing a news article on social media, I am more likely to attribute credibility to an article that was shared by someone I know personally.



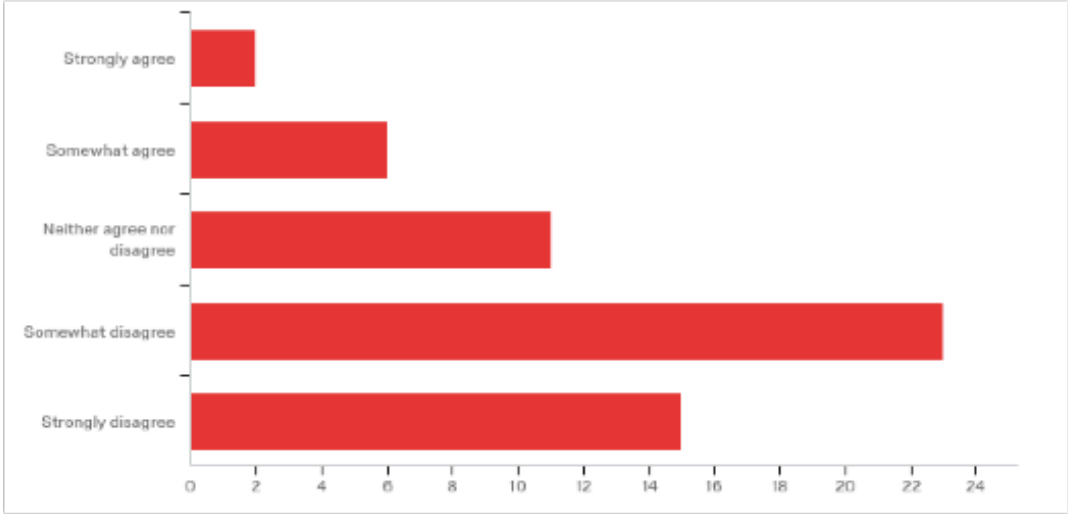
#	Answer	%	Count
11	Strongly agree	21.82%	12
12	Somewhat agree	16.36%	9
13	Neither agree nor disagree	23.64%	13
14	Somewhat disagree	27.27%	15
15	Strongly disagree	10.91%	6
	Total	100%	55

17 - When observing a news article on social media, I am more likely to notice the name of the original poster (James Smith) before the source of the story (The New York Times).



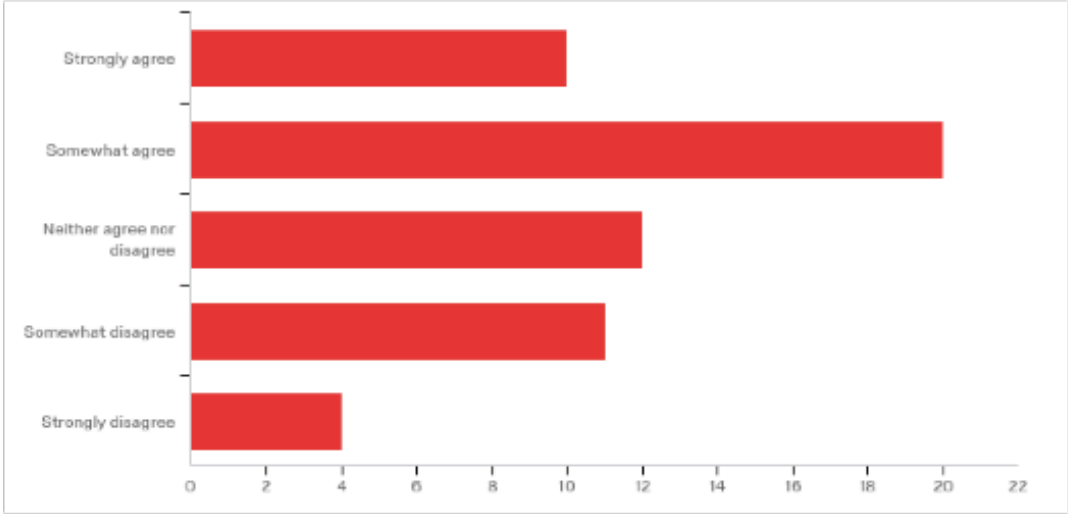
#	Answer	%	Count
1	Strongly agree	14.04%	8
2	Somewhat agree	35.09%	20
3	Neither agree nor disagree	12.28%	7
4	Somewhat disagree	19.30%	11
5	Strongly disagree	19.30%	11
	Total	100%	57

18 - I make a point of not reading the comments beneath a news article shared to Facebook.



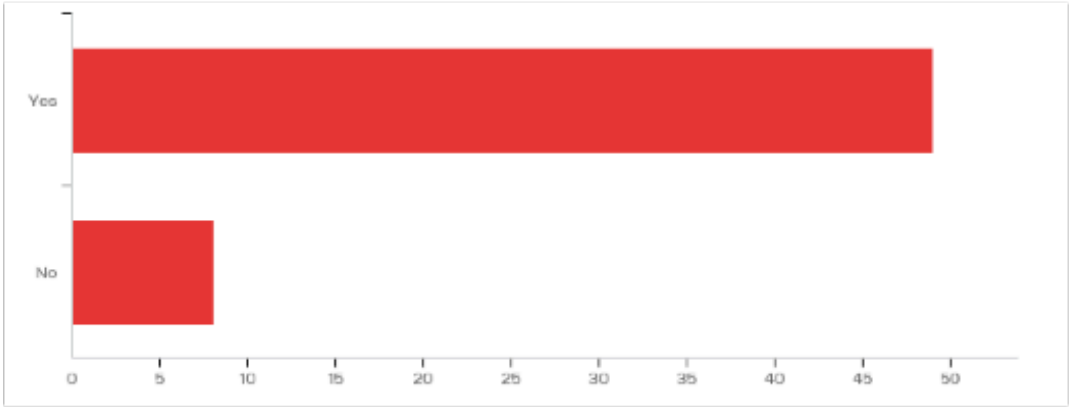
#	Answer	%	Count
1	Strongly agree	3.51%	2
2	Somewhat agree	10.53%	6
3	Neither agree nor disagree	19.30%	11
4	Somewhat disagree	40.35%	23
5	Strongly disagree	26.32%	15
	Total	100%	57

19 - I am more likely to attribute credibility to news articles that were shared on social media by someone with whom I am personal friends.



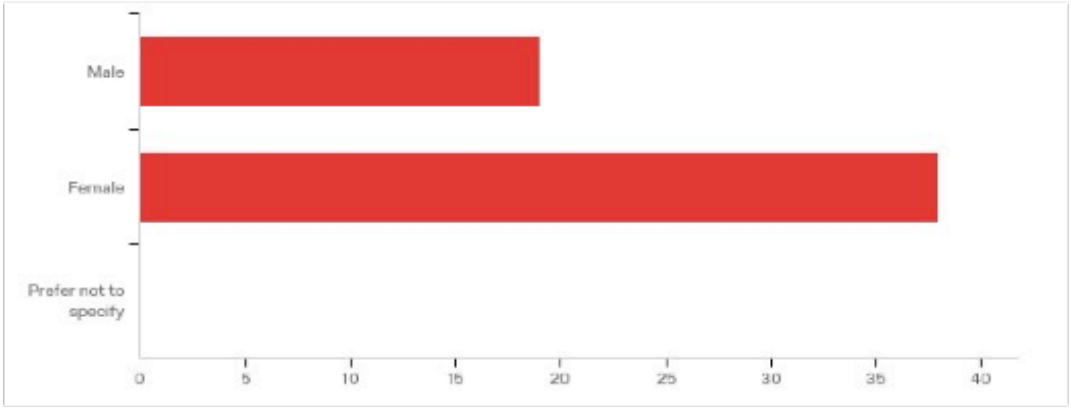
#	Answer	%	Count
1	Strongly agree	17.54%	10
2	Somewhat agree	35.09%	20
3	Neither agree nor disagree	21.05%	12
4	Somewhat disagree	19.30%	11
5	Strongly disagree	7.02%	4
	Total	100%	57

20 - Are you majoring in journalism?



#	Answer	%	Count
1	Yes	85.96%	49
2	No	14.04%	8
	Total	100%	57

21 - What is your sex?



#	Answer	%	Count
1	Male	33.33%	19
2	Female	66.67%	38
3	Prefer not to specify	0.00%	0
	Total	100%	57

22 - How old are you?

How old are you?
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