

# In News We Trust? Examining Credibility and Sharing Behaviors of Fake News

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## ABSTRACT

New communication technologies afford individuals the ability to not only consume media, but also create and share content with others. The purpose of this study is to investigate various factors that influence perceptions of credibility and sharing behaviors. Unfortunately, information disseminated via the Internet does not always contain factual, unbiased information. This study randomly assigned 207 participants to one of six conditions where they were exposed to news articles containing factual or false information and one of three political frames (balanced, right-leaning, left-leaning) to identify the environmental (distraction levels and screen size) and individual factors (political interest and religiosity) that influence perceptions of credibility and sharing behavior. Results suggests that credibility positively influenced sharing behavior, regardless of condition. Additionally, political interest was found as a positive predictor of sharing behavior and religiosity was found as a positive predictor of credibility. Findings are discussed in terms of theoretical and practical implications.

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## CCS CONCEPTS

- Networks → Social media networks
- Networks → Social media

## KEYWORDS

Fake news, credibility, sharing behavior

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## 1 INTRODUCTION

Digital media has revolutionized mass media, as well as the means and strategies individuals use to share information like news. On Facebook, Twitter, and other social networking sites (SNSs,) news stories often propagate widely and often quickly become viral. This pattern is particularly evident for one-sided, sensationalized news content. User after user shares a “news” story, inadvertently spreading misinformation.

Consider a recent example: in January 2019 a video focusing on a group of students and protestors in Washington, D.C. was shared widely. The students were wearing “Make America Great Again” hats and one student stood directly in front of a Native American man, Nathan Phillips, during what appeared to be a heated confrontation [1]. The video presented part of a larger, more complex situation in which these young men had mocked Phillips, deliberately causing a public scene. The clip was uploaded to social media and then quickly shared on Twitter by the user @2020fight, which has a large following of over 40,000 other users [2]. Ultimately, the video went viral and gained national attention in the United States via mainstream media coverage.

The following day, additional videos recorded by bystanders at the scene became available. Not surprisingly, these videos provided additional context about the event, which influenced how viewers interpreted the encounter. The students were initially harassed by a third, unrelated group and had only mocked Phillips after he had approached the group of students. While both conservatives and liberals became outraged over the content of both videos, it has become evident that the nature and intention of these videos was highly suspicious. In the aftermath of the situation, it appears the creator of the video has achieved their intentions, as the news gained national coverage and further divided a nation that was already at odds.

However, questions regarding where the video originated from, individuals' motivations for sharing the information, and the exact processes that took place to create this sensational and harmful (fake) news story remain. The video was uploaded via an Instagram user, but soon after it was shared on Twitter by the account *@2020fight* with a caption that incorrectly described the clip [2]. The Twitter user *@2020fight*—a politically charged name to begin with—claimed to be a teacher from California, but suspicion mounted upon the discovery that their profile picture was that of a blogger from Brazil [2]. The fact that the account had been tweeting about 130 tweets a day, most of which were liberal leaning, was also highly suspect [2]. After the questionable nature of this account was reported to Twitter, the account was suspended and no longer available within days of the video surfacing.

Since the 2016 U.S. election, attention has been drawn to the dissemination of misinformation (i.e., fake news) via social media [3], much like the scenario described above. Although there is a rich history of hoaxing and propaganda throughout the 20th century [4], the influence of technology raises important concerns regarding how misinformation rapidly diffuses throughout large groups of people and the consequences of this phenomenon. One concern is that social media allows anyone to create and share content regardless of the credibility of the source or information. An individual social media account now has the potential to reach just as many media consumers as large news outlets such as Fox News or CNN. A second concern is that individuals process information differently. As the barriers for creating information have become less strict, messages are easily passed to a public with varying levels of media literacy who may lack an understanding of the damaging effects of sharing a dubious news article rife with misinformation [5].

In this new digital era online competition is abundant and information transmitted through mass media seems

to be less concerned with content and more concerned with personal financial or political gain [3]. With so many news outlets readily available and competing for attention, news creators employ strategies like clickbait headlines to entice people to click their hyperlink. In some cases, it seems as though ethical standards have given way to benefit a corporation's bottom line. Information, factual or not, has become abundant and readily available to the public. This study seeks to understand how individuals process new information and further explore their decision-making process behind why and who they choose to share this content with. To further explain sharing behavior, we explore how environmental (distraction levels and device type) and individual (political interest and religiosity) factors influence how individuals process and assess credibility of news articles.

## 2 LITERATURE REVIEW

### 2.1 FAKE NEWS

Since the 2016 U.S. election the definition of fake news has come to be understood as the purposeful dissemination of false information by mimicking traditional journalistic standards [6]. In its simplest form, fake news can be considered distorted signals [3], fabricated information that imitates the form of news media content [6], and information that is specifically curated with the intention to deceive [7]. We can further break down fake news into separate categories of misinformation (unintentionally reporting false information, or framing information in a way that is misleading) and disinformation (intentionally reporting false information with the purpose of deception) [6, 7]. Inaccurate information through mass communication channels is not an entirely new concept in American culture; it is a challenge that news consumers face on a daily basis. Therefore, it is important to understand how individuals determine credibility of news articles, and why and with whom they choose to share this information.

Propaganda has been widely used as a way to influence public opinion, and to accomplish political agendas. More than just classifying news as false, unbelievable, or identifying news sources that disagree with your political opinion as "fake" [8], the act of accusing another party of disseminating fake news has become a phenomenon in itself. The accusations of someone spreading fake news bears a striking resemblance to historical events of the Salem Witch Trials or the McCarthyism Red Scare; the claims are often made without evidence, based on an emotional response, and are the result of a political opposition. Since the U.S.

Presidential election of 2016 [9], the accusations of fake news have been used as political weapons [6] to weaken the trustworthiness of opponents by denouncing information featured in mass media that does not align with ones' political ideology, whether it is factual or not. The phenomena of claiming news to be fake has come from both major U.S. political parties. During the early days of his presidency, Donald Trump utilized his personal Twitter account over 70 times in a six month span accusing the media and Democrat politicians of spreading fake news [9]. Not only is the strategy working, it is also causing the public to lose significant trust in traditional mass media sources. For example, only 51% of Democrats and just 14% of Republicans report a "fair" or "great deal" of trust in mass media news sources [6].

To study the spread of fake news and to better identify it, we need to understand how fake news differs in form from factual news, including the literary style and the mediums through which it is shared. Many news sources have developed their own unique perspective or interpretations of the news to set themselves apart from their competition. In this regard, agenda-setting and framing have become prevalent in today's media ecology [10]. Vosoughi et al. draws a parallel between fake news and rumors, both of which are social in nature and are typically shared between people [8]. When assessing the composition and prose of a message containing fake news, Horne and Adah [7] determined that fake news was generally written simplistically, containing less overall context with a repetitive content, and features longer titles with fewer stop words and fewer nouns. Allcott and Gentzkow [3] go so as far as to claim authors that curate fake news typically do very little to support claims in their inaccurate articles; the authors care less about long-term journalistic credibility and more about short-term gains.

The current study is designed to expose individuals to articles containing factual or false information with various types of frames (i.e., balanced, right-leaning, left-leaning). We are interested describing the mechanisms behind how individuals process this information. Specifically, do they think the article is credible, and through which channels and network members would they share this information.

## 2.2 INFORMATION PROCESSING

When reading news that is potentially infiltrated with misinformation, it is necessary to understand how individuals sort through information, identify and filter out false claims. Information processing theory indicates that individuals can only process a limited amount of content based on their total cognitive abilities, finite span

of short-term memory, and a limited attention span [11]. If an individual is given more information than they can process within their limited resources, their ability to retain that information becomes greatly reduced.

When individuals are faced with an overload of information, they typically resort to strategies that help them evaluate the validity of information faster. Previous research suggests that individuals take a systemic or heuristic route to processing information [7, 12, 13]. When individuals engage in systematic processing, they expend much of their cognitive ability towards evaluating the context and composition of the message. Alternatively, heuristic processing focuses less on the actual message and more on external factors that are not central to the main argument such as source credibility. Chaiken [12] claims that the main difference between the two approaches comes down to the amount of effort expended when processing information; systemic processing involves a great deal of effort and heuristic processing requires minimal effort and relies on past experiences and knowledge to make a judgment.

Fake news is composed in a unique and vastly different way from that of actual news. Because of the format and prose that embodies fake news, articles are prime for heuristic processing. Fake news typically includes the article's main argument in its headline [7], therefore heuristics can be utilized in many cases without ever reading the body of the news article. If an article is read in its entirety, the articles are typically repetitive, and reinforce the main argument featured in the title of the article. Therefore, a fake news article is less about presenting new information and making a compelling argument of facts, rather it is more about confirming a previous belief or ideology through heuristics. While evaluating a news article through heuristic processing, and quickly reading through the content, the reader is not attempting to learn new information, but simply searching for cues that will validate their previous beliefs they obtained through past experiences and observations [12, 13].

Although individuals are constantly exposed to news articles containing both factual and false information, they only typically remember and share information that is deemed credible [14]. Individuals determine information credibility based upon a multitude of factors including the source of the message (e.g., trustworthiness, attractiveness), the receiver (e.g., need for information, values and beliefs), the message itself (e.g., topic, framing), the medium (e.g., presentation vividness), and the context of the information (e.g., distraction or noise) [14]. Information that is considered credible is more likely to be shared by those believing the information to be accurate. For example, Twitter users

are more likely to retweet information with high source trustworthiness, expertise, and attractiveness [15]. We expect to replicate the findings that individuals who perceive the news articles as credible, will be more likely to share this information with their network. Therefore, we propose:

**H1:** Credibility has a positive relationship with sharing behavior.

In this study we are interested in examining how certain factors, including distraction or noise levels, device type, political ideology and religiosity, affect perceptions of credibility and sharing behavior of news articles.

### 2.3 ENVIRONMENTAL FACTORS

With an influx of technology persistently pushing messages to us and competing for our attention, individuals are dealing with distraction conflict. During the transmission of messages, signals can become distorted, altered, or interrupted with the presence of noise [16]. Noise, or in this case distractions, can come in a number of different representations. Whether people are distracted by choice (e.g., using second screens, listening to music in the background, talking with friends, etc.) or involuntarily (e.g., pop-up advertisements, auto-play videos, etc.) individuals regularly attempt to focus on multiple stimuli simultaneously, which divides their attention and sensory receptors. Individuals attempting to input multiple stimuli into their short-term memory at once limit their ability to process information [17].

Festinger and Maccoby [18] propose that when individuals are exposed to persuasive messages in environments full of distractions, the persuasive effect of the communication is heightened. Distracted individuals have less cognitive ability to construct counterarguments regarding why they should resist the persuasive attempt. In other words, the presence of distractions interferes with information processing [19, 20]. Therefore, individuals are more likely to believe and endorse the information presented to them. When it comes to consuming news articles, it is likely that when individuals are engaging in other behaviors simultaneously, they are more likely believe the information they read and not question or scrutinize it. Therefore, we predict:

**H2:** Credibility mediates the relationship between distraction level and sharing behavior such that participants reporting higher levels of distraction will

rate the article as more credible and therefore, are more likely to share the article with their network.

The shift from obtaining news from traditional forms of media to new sources of digital media, compounded with the increasing availability of new sources, has increased heuristic processing of news media. The process of navigating through a digital environment has significantly altered individuals' approach to reading, and people are obtaining information differently than they used to [21]. According to research on screen-based reading behaviors [22], there has been a substantial increase in non-linear reading, keyword spotting, and reading selectivity. With the increased volume and availability of information, people are devoting less attention towards continuous reading, shifting their primary reading objectives from total comprehension of material, a systemic strategy, to identifying key ideas and concepts while skimming—which is a heuristic strategy.

The devices used to access information have also become an important factor when examining information processing. Research has shown that the size of a screen has a direct positive correlation on the overall user experience. Specifically, the larger the screen size, the more likely the individual is to be psychologically transported into the digital world [13]. Larger screen sizes create a sense “being-there” [23]. By researching the differences in obtaining information through various screen sizes, Kim & Sundar [13] determined that using a larger screen leads to a greater sense of transportation, and can increase the likelihood of heuristic processing by 67%. Larger screen sizes create a bigger opportunity for noise and distraction, and thus, individuals are less likely to thoroughly think about the message. Therefore, we predict:

**H3:** Credibility mediates the relationship between screen size and sharing behavior such that participants with larger screen sizes will rate the article as more credible and therefore, are more likely to share the article with their network.

### 2.4 FRAMING

Research suggests that the media is not only responsible for setting the agenda for what the public thinks about, but also how they think about it [24]. According to Entman [25], by using specific words or images to draw attention to a particular angle of a story, the media employs framing or selective inclusion, omission, and emphasis of certain information. The purpose of framing is to make the story more salient to the public [25]. The more meaningful or memorable the information is, the more likely is it to be processed and stored in the public's memory [26].

Presenting information selectively and strategically is shown to influence how the public thinks of an issue. However, the effects of framing are not universal, they are based on the individual and, more specifically, their existing beliefs. Framing is helpful when individuals process information because it taps into their existing schemata. Information consistent with individuals' existing belief systems is easier to process than those inconsistent [25]. Perse [27] argues that because of this, the effects of message framing are a result of heuristic message processing. Instead of systematically evaluating the information, individuals can rely on familiar cues quickly (e.g., terminology, cited sources) to determine message credibility.

Therefore, when thinking about how individuals process news, it is important to identify various factors that may influence the effect of message frames. For example, Iyengar [28] found that individuals were more likely to be influenced by a message frame when they had low political involvement. Further, Kinder and Sanders [29] found that individuals who identify strongly with a political party were less likely to be influenced by message framing. Of particular interest to this study, we focus on how political interest and religiosity affect individuals' credibility assessments and sharing behavior.

## 2.5 INDIVIDUAL FACTORS

Individuals' decision-making process is predisposed by a number of factors that comprise their personal identity. Social cognitive theory suggests that one's personal agency is a direct reflection of their sociostructural influences [30]. People form opinions and beliefs based on outside influences, and they use these opinions as a moral compass to guide them in determining if information adheres to or opposes their personal standards [30, 31]. To assist in making decisions about information, people often refer to their political interests and religiosity.

As previously mentioned, heuristic processing is a strategy often used to quickly process information based on mental shortcuts [13], which rely on previous experiences, beliefs, or affiliations. Research suggests that Americans have become less informed about current political information and resort to cognitive heuristics to compensate for a general lack of knowledge or political acumen [32]. Individuals with relatively low political engagement make quick assessments about a multitude of political news articles they are subjected to by applying their experiences from previously formed political beliefs or values. Although those with both low and high political engagement utilize heuristics to make decisions about political information, the accuracy of heuristic processing has different results between groups. Lau and Redlawsk [32] determined that people with higher political engagement are more likely to make

accurate judgements using heuristic cues compared to those with lower political engagement and political ignorance.

Research has also found that a person's negative reaction to political information plays an important role in how the information is processed [33]. When individuals react negatively to political information, they can respond in two ways: skeptically or cynically. While skeptical individuals are initially critical of the information, skepticism provides motivation to seek out additional information that will either provide clarity and relieve their skepticism, or discredit the arguments of the information and verify the information is false [33]. This strategy—which began as a heuristic cue—leads to additional information gathering, and therefore evolve into systemic information processing [12]. Cynical responses to political information typically result in quick heuristic reactions, indicating a distrust of the information, and ultimately lead to a rejection. In this case, a person of opposing political beliefs tends to feel vindicated in their previous position and builds further distrust in the political news media source [33].

The idea of a democratic society is that each person has equal opportunity to participate in the decisions of the government through casting their vote, and that each voter should be an attentive and well-informed member of that society [32]. In order to achieve effective political decision making, individuals exhibit a level of involvement towards information seeking that matches their interest in obtaining political information and their motivation to participation in the democratic process [34-38]. Individuals interested in obtaining and processing political information are better cognitively prepared to use heuristics to process news information correctly. Because of this, a person with a high political acumen is better at identifying misinformation, determining information credibility, and will be less likely to share misinformation with their network. Therefore, we predict:

H4: Credibility mediates the relationship between political interest and sharing behavior such that participants with greater interest in politics will rate news articles containing factual information as more credible and therefore, are more likely to share the article with their network.

Similar to political interest, religiosity also plays a contributing factor to a person's processing of political information. In many ways, there appears to be a strong correlation with religious beliefs and political interest. In a 2014 survey of the American religious landscape, the Pew Research Center [39] found that people who

identified as Republicans also strongly identified as Christians, and they often were more likely to believe in God, spend more time in prayer, regularly attend religious services, and other correlating religious practices. In terms of how religion influences a person's moral compass, Republicans were more likely (44%) to use religion on the guidance of right and wrong, versus just 25% of Democrats. In terms of standards of right and wrong, Republicans were twice as likely (47%) as Democrats (23%) to believe that there are clear standards for right and wrong. The majority of Democrats (75%) believe that right or wrong is not clear cut and is often dependent on the situation.

Even though a founding pillar of the U.S. was the separation of church and state, it is evident that religiosity, especially the Christian faith, still plays a prominent role in the government; an overwhelming majority (88%) of the 116<sup>th</sup> Congress (2019) identifies as Christian [40]. While the number of Christian Americans has declined over the years (71%), the composition of members of the Christian faith has shifted "away from white mainline Protestant churches towards white evangelical Protestant churches" [41].

With shifting political beliefs, religiosity has caused further divide and increased tension in the United States political climate. It has amplified the debate on sensational topics between groups of people [42]. With Democrats deemphasis of religiosity and the Republicans becoming more represented by evangelical Christians [39], the conservative Christian right has become a strong force in the Republican party [41].

Religiosity is shown to affect how individuals process the news. Research shows that evangelical Christians tend to avoid secular media sources that would present information that differs or challenges their religious beliefs [41, 43]. By limiting their exposure to news of opposing values, evangelical Christians resort to obtaining news from Christian-based media outlets, which present news that is framed to support their religious values and creates echo chambers that constantly repeat their faith-based claims. Therefore, they will be more supportive of those articles. Thus, we predict:

H5: Credibility mediates the relationship between religiosity and sharing behavior such that participants reporting higher levels of religious engagement and stronger religious beliefs will rate news articles containing right-leaning information as more credible, and therefore are more likely to share the news article with their network.

### 3 METHOD

#### 3.1 PARTICIPANTS AND PROCEDURE

During the fall semester of 2018, a total of 209 participants were recruited from a large northeastern university in the United States to complete an online experiment. All procedures were approved by the institutional review board. In exchange for participating in the research, students were given participation credit which partially fulfilled their course requirements. College students were chosen as they are comprised predominantly of people between the ages between 18 and 29, an age group considered to be the most avid users of popular SNS, such as Facebook (88% of online adults), Instagram (59% of online adults), Twitter (36% of online adults), etc. [44]. Members of that age group are also the most avid and engaged users for messaging applications (42% of online adults), and auto-delete messaging applications (56% of online adults) [44]. Due to incomplete data two participants were removed from the subsequent data analyses. The final sample is comprised of 207 participants (106 female, 101 male). After obtaining consent, participants completed the experiment Qualtrics survey software.

Participants averaged 20.26 years of age ( $SD = 3.96$ ) and were 55.1% Caucasian, 17.9% Asian, 13% African American, 7.7% Hispanic, and 6.3% identified a variety of other ethnicities. Approximately 77% of participants identified as Democrat, 29% Independent, 15% Republican, 7.2% are not from the United States, and 4.8% identified with other political parties. Additionally, 32.9% identified their political orientation as liberal, 24.6% as moderate, 18.4% indicated they do not care about politics, 12.1% identified as conservative, 9.2% as very liberal, 1.9% as very conservative, and 1% identified as other. Data indicated that 92.3% of participants completed the experiment on a computer and 7.7% on a mobile device.

Participants were first asked basic demographic information, including if English was their native language and if not, how long they have been speaking English for. From there, participants were randomly assigned to one of six conditions (fact/balanced condition = 35, fact/right-leaning condition = 32, fact/left-leaning = 36, misinformation/balanced condition = 34, misinformation /right-leaning condition = 34, misinformation /left-leaning = 36). They were asked to read a news article about a current political conflict, the 2018 migrant caravan from Central America attempting seek asylum in the United States. The six news articles consisted of three paragraphs, which varied in their political frame (balanced, right-leaning, left-leaning) and contained factual or misinformation.

Participants could not proceed to the next page until a 20-second timer expired. Following exposure to the articles, participants were asked details about whether or not they would share the article. Additionally, they were asked about article credibility, political ideology and interest, religiosity, and how distracted they were while completing this study.

### 3.2 MEASURES

*News articles* were designed by the research team specifically for this study. Information was curated from numerous news articles found on [www.allsides.com](http://www.allsides.com), a website designed to identify the political orientation and potential bias of articles published from major global news outlets. The news articles were then designed as 490 pts x 490 pts images that one would typically see on SNSs. The articles were portrayed as an authentic news article from a factitious news outlet called "Empire News." The six conditions for the news articles were divided into information type (fact vs. misinformation) and political frame (balanced, right-leaning, left-leaning). For example, participants in the fact/left-leaning condition saw an article that contained all true information, but the claims listed favored a left-leaning agenda and omitted facts from the right-leaning agenda; although they are true, they are misleading. Articles in the "misinformation" category presented completely false information as factual.

*Sharing behavior* was measured by asking whether or not the participants would share this article with their network (no = 57, it depends = 84, yes = 66). Based on their answer, participants completed a series of questions to help further explain their reasons for sharing or not. Participants answering yes were then asked if they would share the article online or offline or both, and also the channels they would use to distribute the information. If they chose online, they were given options of Facebook, Twitter, email, message (text, Snapchat, Messenger, WhatsApp, WeChat, etc.), and other. If they chose offline they were given options of written correspondence, in person, over the phone, or passing along a printed news article. Participants were then asked to identify the specific networks in which they might share the news article with (e.g., coworkers, friends, organizations). Those that said they would not share were asked to identify the reasons why they would not share (e.g., the news is not significant enough to share, I tend not to share things). Participants that answered "it depends," were given both sets of questions.

*Credibility* was measured with one item asking participants to rate how credible they find the information in the article they read on a 7-point scale (1

= extremely uncredible to 7 = extremely credible;  $M = 4.54$ ,  $SD = 1.36$ ).

*Political interest* was measured using 5-items on a 5-point Likert scale to determine how people were connected or concerned about political news coverage ( $M = 3.10$ ,  $SD = .99$ ,  $\alpha = .91$ ) [45]. Questions ranged from how often they think about political news, how they seek out news, and how important political news is to them.

*Religiosity* was determined using 5-items to assess participants' frequency of attending church or religious meetings, if they participate in private religious activities, if they experience the presence of a the divine, and to what extent their religious beliefs carry over to other decisions in their lives ( $M = 2.54$ ,  $SD = 1.23$ ,  $\alpha = .90$ ) [46].

*Distraction* was measured using 5-items on a 7-point Likert scale to assess the location and environment in which they completed the experiment ( $M = 2.77$ ,  $SD = 1.24$ ,  $\alpha = .74$ ). Example items include "I was with other people" and "I was in an environment with lots of distractions from my friends" when completing the experiment.

*Device* data was automatically recorded from the survey software, Qualtrics.

## 4 RESULTS AND DISCUSSION

The Statistical Package for Social Sciences (SPSS) was used to conduct all analyses in this study. Descriptive statistics and correlations are presented in Table 1.

**Table 1: Means (Standard Deviations) and Correlations**

	1	2	3	4	5
1. Age	20.26 (3.96)	-.04	.02	.08	-.10
2. Gender		51% F	-.06	.03	-.11
3. Distraction			2.76 (1.24)	-.001	.014
4. Political Interest				3.10 (.99)	.02
5. Religiosity					2.54 (1.23)

*Note.* \* $p < 0.05$ , \*\* $p < 0.01$

### 4.1 CREDIBILITY AND SHARING BEHAVIOR

A linear regression analysis was performed to examine predictors of sharing behavior. Regardless of condition, credibility ( $\beta = .27$ ,  $p = .00$ ) is a significant positive predictor of sharing behavior,  $F(2, 206) = 7.27$ ,  $p = .001$ ,  $\eta^2 = .07$ , and explains 5.7% of the total variance. Therefore, hypothesis 1 is supported. Results are presented in Table 2.

**Table 2: Predictors of Sharing Behavior (All Conditions)**

	$\beta$	SE
Condition	.04	.03
Credibility	.27**	.04
Adj. R <sup>2</sup>		.06
F		7.27**

Note. \* $p < 0.05$ , \*\* $p < 0.01$

Additionally, crosstabulations revealed that across all conditions, 31.9% of the total sample indicated they would share the article with people they know, 27.5% indicated they would not share the article with people they know, and 40.6% indicated that it depends.

Of the respondents that indicated they would share the article, 68.1% said they would share the article online (e.g., social media, email, messaging) and 63.6% indicated they would share the article offline (e.g., casual conversation, word of mouth).

Of the respondents who indicated they would not share the article, 82.5% did not agree with the news article, 75.4% indicated that the news is not significant enough to share, 75.4% did not find the news credible or reliable, 71.9% thought that news in general was already shared enough by others, and 50.9% indicated that they tend not to share things with others.

#### 4.2 ENVIRONMENTAL FACTORS

To examine the role of environmental factors in perceptions of credibility and sharing behavior, a mediation analyses was performed for each condition. All mediation analyses were tested using the bootstrapping method with bias-corrected confidence estimates [47, 48] with the 95% confidence interval of

indirect effects obtained with 5,000 bootstrap resamples [48].

First, we proposed that the relationship between distraction level and sharing behavior is mediated by perceptions of credibility. The first step of the mediation indicated that there is no direct effect of distraction levels on sharing behavior. Additionally, perceptions of credibility did not significantly mediate this relationship. Thus, hypothesis 2 is not supported.

Second, we proposed that interface and sharing behavior was mediated by perceptions of credibility. Mediation analyses revealed no significant direct effect of interface on sharing behavior. Further, perceptions of credibility did not mediate this relationship. Thus, hypothesis 3 is not supported.

#### 4.3 INDIVIDUAL FACTORS

The mediation analyses strategy described above was also used to examine the role of individual factors on perceptions of credibility and sharing behavior. First, we proposed that the relationship between political interest and sharing behavior is mediated by perceptions of credibility.

For the fact/balanced condition, results indicated that there was a significant direct effect for political interest on sharing behavior (95% CI: .07, .63). However, credibility was not found as a significant mediator. Additionally, similar results were found for the fact/left condition. A direct effect was found for political interest and sharing behavior (95% CI: .03, .62). However, no significant mediator emerged. No significant results for the remaining conditions were found. Therefore, hypothesis 4 is partially supported. Results are presented in Table 3.

Secondly, we proposed that the relationship between religiosity and sharing behavior is mediated by perceptions of credibility. For the fact/balanced condition, no direct effect for religiosity on sharing

**Table 3: Direct and Indirect Effects (Political Interest)**

Predictor	Fact/Balanced Condition			Fact/Left Condition		
	$\beta$	SE	t	$\beta$	SE	t
<b>Mediator Model (Credibility)</b>						
Constant	5.09	.73	6.92**			
Political Interest	-.02	.20	-.08			
<b>Dependent Model (Sharing Behavior)</b>						
Credibility	.03	.12	.22			
<b>Direct Effect of Political Interest on Sharing Behavior</b>						
	.35	.14	2.59**			
<b>Indirect Effect of Political Interest on Sharing Behavior</b>						
Boot indirect effect	Boot SE	Boot CI <sup>a</sup>	Boot upper CI <sup>a</sup>	Boot indirect effect	Boot SE	Boot lower CI <sup>a</sup>
Credibility	-.00	.03	-.06	.05	.03	-.02

Note. Bootstrap sample size = 5000; <sup>a</sup>CI = confidence interval; \* $p < 0.05$ , \*\* $p < 0.01$

**Table 4: Direct and Indirect Effects (Religiosity)**

Fact/Balanced Condition				Misinformation/Balanced Condition			
Predictor	$\beta$	SE	<i>t</i>	$\beta$	SE	<i>t</i>	
<b>Mediator Model (Credibility)</b>							
Constant	5.85	.41	14.23**	3.64	.39	9.28**	
Religiosity	-.32	.15	-2.21*	.38	.13	2.83**	
<b>Dependent Model (Sharing Behavior)</b>							
Credibility	.09	.13	.68	.11	.12	.93	
<b>Direct Effect of Religiosity on Sharing Behavior</b>							
	.17	.12	1.44	.32	.14	2.25*	
<b>Indirect Effect of Religiosity on Sharing Behavior</b>							
Boot indirect effect	Boot SE	Boot lower CI <sup>a</sup>	Boot upper CI <sup>a</sup>	Boot indirect effect	Boot SE	Boot lower CI <sup>a</sup>	Boot upper CI <sup>a</sup>
Credibility	-.03	.05	-.16	.05	.04	.05	-.06
							.16

Note. Bootstrap sample size = 5000; <sup>a</sup>CI = confidence interval; \**p* < 0.05, \*\**p* < 0.01

behavior was found. However, a significant indirect effect between religiosity and credibility was found (95% CI: -.62, -.03). Additionally, similar results are found for the misinformation/balanced condition. No direct effect for religiosity on sharing behavior was found, however we found a significant indirect effect for religiosity on perceptions of credibility (95% CI: .11, .65). No significant results for the remaining conditions were found. Therefore, hypothesis 5 is partially supported. Results are presented in Table 4.

## 5 DISCUSSION

The proliferation of misinformation, also known as fake news, has called into question how individuals determine the credibility of new articles and whether or not they choose to share this information with others. The purpose of this study was to examine how individuals process news credibility based upon environmental and individual factors. Additionally, we were interested in how these factors influence sharing behavior.

Results from the study suggest that perceptions of credibility predicted sharing behavior, regardless of the presence of misinformation and article frame (balanced, right-leaning, left-leaning). These findings are consistent with previous research which suggests that individuals are more likely to share information with others when they perceive it as more credible.

Our second hypothesis predicted that credibility mediates the relationship between distraction level and sharing behavior. Recall, individuals' ability to process information is thwarted when trying to process multiple sources of information [15]. Unfortunately, we did not find support for this prediction in our data; distraction level did not influence credibility assessment and

subsequently sharing behavior. We speculate that we found no relationship between these variables because our participants reported low levels of distraction (*M* = 2.76). It is possible that our participants dedicated their full attention to this experiment because they had to complete it on their own time to receive course credit. It is likely that we would have found support for these hypotheses if we experimentally induced a distractive environment.

Our third hypothesis predicted that perceptions of credibility mediates the relationship between screen size and sharing behavior. Specifically, we argued that participants who read the news article on devices with larger screens will have higher perceptions of credibility and therefore be more likely to share the article. Results suggest that screen size was not a predictor of perceptions of credibility or sharing behavior. However, these findings may be a result of the proportion of participants completing the experiment on computers (*N* = 191) versus mobile devices (*N* = 16).

Our fourth hypothesis predicted that perceived credibility mediates the relationship between political interest and sharing behavior for those in the factual information conditions. Recall, individuals who constantly seek out and process political information should be better at deciphering between facts and misinformation, and this should influence their perceptions of credibility and sharing behavior. Results suggest that political interest was not a significant predictor of credibility. However, we found that those with greater political interest were likely to share the news article in the fact/balanced and fact/left-leaning conditions. Interestingly, no significant results were found for those in the fact/right-leaning condition. It is likely that credibility was not found as a significant

mediator because our participants lack trust in mass media news sources in general. Therefore, they are likely to share the information without entirely believing it is trustworthy. Additionally, the majority of our participants identified as Democrat (77%), which explains why these results were not replicated in the fact/right-leaning condition. Since the article did not align with their beliefs so they chose not to share the information.

Our final hypothesis predicted that credibility mediates the relationship between religiosity and sharing behavior for participants exposed to right-leaning articles. We proposed that because individuals high on religiosity have viewpoints similar to those of conservative beliefs, they would be more supportive of right-leaning news articles. Interestingly, results from our study found that those high on religiosity perceived the factual, balanced article as less credible and the misinformation, balanced article as more credible.

However, these findings did not predict sharing behavior. We speculate these findings are a result how religiosity affects information processing, such that those higher on this individual factor heuristically process information. We suspect this finding is a result of the composition of fake news, such that the article itself reinforces the information given in the headline. Therefore, article structure is consistent with those on highly religious individuals' schema. Thus, they perceived higher credibility.

### 5.1 LIMITATIONS

This study has several limitations. Firstly, we asked participants whether or not they would share the article with their networks and did not actually measure behavior. Although results from this study are meaningful, an experiment could provide more insight into as whether or not participants would actually share these articles with their friends. Second, our study employed a college student sample. Although, this provides insight into how college students process fake news we could increase the validity of these findings by replicating the study with older, more diverse samples. Third, this study was interested in examining if the technology interface influenced how participants processed information and subsequently their sharing behavior. Unfortunately, the majority of participants used their computers to complete the study and not mobile devices. Therefore, our findings are limited to information processing of fake news on computers. Finally, a one item measure was used to assess perceptions of credibility. Additional items should be included to increase the reliability and validity of this measure.

### 5.2 FUTURE DIRECTIONS

This study presents several avenues for future research. The study should be replicated by having participants use their mobile devices. Research should also investigate individuals' credibility assessments and sharing behaviors in video versus textual news casts. Additionally, future research should investigate how other aspects of news articles (e.g., pop-up advertising, source reputation, etc.) affect how individuals process information and subsequently their credibility assessments and sharing behavior. Finally, future research should examine other audience-level factors such as age, social network size and diversity, and individuals' motivations for using social media such as attention giving and seeking behaviors.

## 6 CONCLUSION

The purpose of this study was to examine how individuals process information in the news. Results from this study indicate that regardless if the article contains factual or false information, if individuals perceive the article as credible they will share it with their network. Additionally, we found political interest to be a predictor of sharing behavior and religiosity as a predictor of credibility.

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