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Who to Trust on Social Media: How Opinion Leaders and Seekers Avoid Disinformation and Echo Chambers

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Abstract

As trust in news media and social media dwindles and fears of disinformation and echo chambers spread, individuals need to find ways to access and assess reliable and trustworthy information. Despite low levels of trust in social media, they are used for accessing political information and news. In this study, we examine the information verification practices of opinion leaders (who consume political information above average and share their opinions on social media above average) and of opinion seekers (who seek out political information from friends and family) to understand similarities and differences in their news media trust, fact-checking behaviors, and likeliness of being caught in echo chambers. Based on a survey of French Internet users (N = 2,000) we find that not only opinion leaders, but also opinion seekers, have higher rates across all three of these dependent variables. We discuss the implications of findings for the development of opinion leadership theory as well as for social media platforms wishing to increase trust.

Keywords

trust, disinformation, echo chambers, opinion leader, social media, news, survey, France

Introduction

As trust in social media platforms as a source of political information and news declines (Newman et al., 2018), fears of disinformation and polarized echo chambers has increased (Griffiths, 2019; Vargo et al., 2018). The way political information flows through social media platforms has potentially immense implications for political systems and, particularly in democratic contexts, social media platforms like Facebook are under increasing pressure to respond to perceived threats (Pegg, 2019). The integrity of elections and referenda around the world have been brought into question with social media platforms being highlighted as key players in the political information system which can serve to amplify disinformation and foster an environment promoting partial views of political landscapes possibly resulting in filter bubbles or echo chambers (Vargo et al., 2018).

Although users are increasingly untrusting of platforms, there continues to be meaningful exchanges and content sharing within online communities on social media. These exchanges rely on trust between not simply the user and the platform but also among various users who engage on that platform (Turcotte et al., 2015). In this social setting, some individuals may have more authority than others when it comes to judging and disseminating information (Turcotte et al., 2015). The theoretical notion of an opinion leader suggests there are individuals who are trusted sources of political information for their everyday associates who tend to pay less attention to news or other political messages from elites (Katz & Lazarsfeld, 1955).

Opinion leaders are then well placed to exacerbate or insulate others against threats such as disinformation or echo chambers. Exerting social pressure and social support, opinion leaders are well placed to serve as an extra trust layer atop the technical infrastructure of a platform if they actively fact-check and do tasks which help them avoid echo chambers. In contrast, if they do not engage in these practices, they might inadvertently amplify the problematic information flows present on a given platform. If an individual does not trust social media platforms generally but

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does trust messages from opinion leaders, those opinion leaders are powerful players.

This is particularly relevant when we consider the responses of platforms to dwindling trust, disinformation spread, and threats of echo chambers. Platforms are looking for technical solutions such as modifying the algorithms that prioritize and incentivize certain types of content and behaviors (Conditt, 2017) and public media literacy has been pointed to as a needed response for users of platforms to understand and critically assess how information arrives in front of them. But the social context in which people consume political information on these platforms is also crucial and the example of opinion leaders is an illustrative case. To understand the opinion leader's role in mediating (or not) digital threats, we need to know whether opinion leaders do in fact have behaviors that set them apart from other social media users in terms of their response to the political information they encounter and share.

This article considers political information verification practices of opinion leaders compared to others as a first step toward understanding the role of opinion leaders on social media. We consider the level of trust individuals have in news media, tendency to engage in fact-checking practices, and tendency to engage in practices which would help them avoid echo chambers.

We rely on a sample of 2,000 French Internet users. At the time of the survey, France was anticipating a general election scheduled for April 2017 (Dutton et al., 2017). During these elections, allegations of fake news were rampant prompting the British Broadcasting Corporation (BBC) and CrossCheck to investigate cases of fake news in anticipation of the 2017 French elections. President Macron further promised to combat fake news if elected. In January 2018, the National Assembly of France passed a fake news law, which enables candidates and political parties to appeal to judges to remove fake news items inclusive of 3 months prior to an election date. While not generalizable beyond France, these results are helpful for building theory and as an initial step toward future research.

We first examine perceived threats to democracy, including lack of media trust, disinformation, and echo chambers. We then consider how opinion leaders, opinion seekers, leader-seekers, and avoiders interact on social media and hypothesize that opinion leaders and leader-seekers will be better able to respond to these threats. We find support for our three hypotheses and then discuss implications for opinion leadership theory as well as implications for how social media platform companies can respond to dwindling trust.

Trust in Social Media and Threats to Democracy

Understanding the Relevance of Trust

While trust in social media could be conceptualized in a number of ways, in our study we focus specifically on the trustworthiness of social media as it relates to political information and news flows. We conceptualize this type of social media trust as analogous to media trust more generally. Media trust is the overall credibility or trustworthiness of the mass media (Tsfati, 2010) and "represents faith in news media actors to fulfill journalistic expectations" (Vanacker & Belmas, 2009, pp. 110–126). Media trust drives the selection of news outlets by audiences (Tsfati & Cappella, 2003).

Trust in social media as a source of political information and news is important to understand because social media has become an integral part of political media systems (Chadwick & Howard, 2008). In France, 21% of Internet users rely on social media to get news often or very often (Dutton et al., 2017). Similarly, the Reuters Institute Digital News Report (Newman et al., 2018) found that 36% people in France who have consumed at least some news in the last month use social media as a source of news. This is low compared to the other countries in the report, for example, averages are higher in Brazil (66%), the United States (45%), and the United Kingdom (39%). While a minority of individuals opt-in to accessing political information online, the potential for incidental exposure has also been examined, suggesting some people come across political information online without intending to (Weeks et al., 2017). The relevance of social media in the political system could be underestimated through survey analysis. Furthermore, in a meta-analysis Boulianne (2015) demonstrates a positive relationship between social media use and political participation, highlighting the relevance of social media for the political system.

Yet trust in social media as a political information and news source is low. The 2018 Reuters Institute Digital News Report shows that the public is increasingly wary of "fake news," but that they rely on institutions or platforms to address so-called fake news. Indeed, 62% of respondents in France expressed concerns about "what is real or fake" when talking about online news. Concerns about fake news are also seen across other countries with a polarized political climate and high social media use including Brazil (85%), Spain (69%), and the United States (64%). The Report further notes that the majority of people surveyed (across all 23 countries) agreed that media companies should do more to combat fake news (75%). In European countries, the proportion of people asking the government to intervene was relatively high with France being about average at 61%, reporting they believe the government should intervene. In contrast, the United States is an outlier with 41% agreeing the government should intervene. This points to the exceptional circumstances of the US context and highlights the importance of studies such as the one we present, which use non-American contexts for theory development. Only 35% of people in France trust the news and with major controversies about social media platforms in the year leading up to data collection, trust in social media is even lower at 19%. These trends are seen across Western democracies including the United States (12%), Germany (18%), and (Belgium 21%).

Dwindling trust in social media has coincided with an increased perception of threats to democracy. While a variety of potential threats have been outlined by various actors—from governments, to news media, to platforms themselves—we focus on two that relate directly to the ways in which political information and news is shared on social media platforms.

First, we consider the spread of disinformation where the concern is primarily that false information can spread across social media and be interpreted as accurate, leading to political opinion formation based on erroneous information. The term disinformation points to "when false or manipulated information or imagery is deliberately used to do harm to someone" (Derakhshan & Wardle, 2017). Disinformation campaigns can have serious political and social repercussions. For example, disinformation campaigns on social media websites like Facebook discrediting vaccines have created chaos in some parts of the world where eradicated diseases came back (Molteni, 2019). Democratic processes rely on the participation of an informed public, if the population makes decisions based on distorted facts, it then threatens democracy (Derakhshan & Wardle, 2017).

Recent work has shown increasing the exposure of users to unsubstantiated rumors increases their tendency to be credulous (Del Vicario et al., 2016). The presentation of "correct" information often has small effects on individual attitudes and beliefs, and we know that even erratum articles are often overlooked (Garrett, 2011). Moreover, people who consume digital misinformation are rarely, if ever, confronted with a corresponding fact-check (Nyhan & Reifler, 2010). So, it is even more important to consider if the public already engages in fact-checking behaviors on their own.

Second, we consider fears of echo chambers wherein individuals are exposed to only a partial view of the information environment in such a way that they receive only information which confirms their preexisting beliefs, and as such are less exposed to opposing views. Popularized by Jamieson and Cappella in 2008, the concept of echo chamber takes its roots from theories such as selective exposure, homophily, confirmation bias, group polarization, and audience fragmentation (Iyengar & Hahn, 2009). These theories are heavily linked and premised on the same fundamental assumptions: individuals who exist in heterogeneous groups are predisposed to choose to engage with ideas that reflect and reinforce their preexisting perspectives (Jamieson & Capella, 2008; Prior, 2007; Sunstein, 2002; Webster & Ksiazek, 2012). The literature demonstrates that the echo chamber effect while observable is marginal (Dubois & Blank, 2018; Flaxman et al., 2016; Fletcher & Park, 2017). Yet, if particularly verbose, popular or powerful players are caught in echo chambers the effect may be amplified.

Fears about echo chambers are found on two levels. First, people may choose not to be exposed to political information or news and thus the gap between those who are politically informed and engaged and those who are not could widen. Second, echo chambers could be grounds for polarization—the process whereby group discussion amid like-minded folks increases the weight of a common group ideology internally for group members, compared to predeliberation tendencies (Sunstein, 2002). This can dually empower unjustly oppressed views and violent extremist perspectives (Sunstein, 2002). At the same time, the echo chamber effect could potentially foster the propagation of fake news and disinformation within these polarities. Understanding the echo chamber phenomena as it relates to political news consumption on social media can help us better understand how audience polarization occurs, and provide us with better understanding into how fake news and disinformation is propagated.

Responding to Threats

Regardless of empirical evidence about the extent to which disinformation or echo chambers are likely to impact people's political opinion formation, decision making, or behavior, governments and social media platforms around the world are responding to these perceived threats. For example, to combat disinformation France adopted a legislation against the distortion of information in November 2018. It gives the power to French judges to order the immediate removal of "fake news" from internet during election campaigns (Bremner, 2018). Germany similarly passed a law in 2017 for social media companies to quickly remove hate speech (Newman et al., 2018). Malaysia, Russia, and Singapore have also adopted laws against "fake news" (Reuters, 2018). Notably, interventions like those in Singapore have been decried by some as impeding free speech rights and called online censorship (Griffiths, 2019). Major players such as Google and Facebook are addressing these issues by partnering with fact-checking networks and have created "war rooms" to combat the proliferation of fake content (Conditt, 2017). Facebook is also reported to have used artificial intelligence to filter out false information faster and Twitter has targeted bots and fake accounts that spread falsehoods, while YouTube has been changing its algorithms to make it harder to find problematic videos (Quinn, 2019). Reddit relies on moderators of its different subgroups to spot fake news, report it, and close down the account if it is revealed to be fake (Peck, 2019).

We focus specifically on what social media users themselves can do in response to these threats in order to consider their role in the social setting. We believe that understanding users' personal practices online could help better shape a regulatory framework. Understanding online behaviors toward trust and news online will highlight where government and social media companies could do more. We therefore examine what we call political information verification practices including fact-checking, which is related to trust in news media, and acts to avoid echo chambers.

Fact-checking is commonly presented as a way in which individuals can respond to disinformation on social media.

Fact-checking involves verification of information, which can be done in a number of ways including consulting additional news sources and using a fact-checking tool or website (Hannak et al., 2014). A push toward reading laterally encourages people to question and verify the information they see by consulting a variety of additional sources on a variety of platforms, which typically extend beyond social media platforms (Wineburg & McGrew, 2017). In the early 2000s, fact-checking online became important in response to fears about political information quality shared by bloggers and citizen journalists who do not necessarily adhere to the same deontology that governs traditional journalists (Graves, 2016). More recently, targeted disinformation campaigns on social media platforms have renewed the sense of urgency of fact-checking (Bennett & Livingston, 2018). Globally, a number of fact-checking organizations have gained popularity, such as Fact Checker (*Washington Post*), Snopes, and in France "Le Monde" launched "Les Decodeurs" in 2017. Agence France-Presse is also collaborating with Facebook on fact-checking and has expanded its services to more countries in 2018 (AFP, 2018).

However, people who consume digital misinformation are rarely confronted with a corresponding correction (Nyhan & Reifler, 2010). While fact-checks from fact-checking groups may not be pushed to individuals, it is possible that individuals seek out information on their own in order to verify claims they encounter. At the individual level, fact-checking practices are focused on an individual's scrutiny rather than their belief in the information they see (Jun et al., 2017). As such, trust toward media is an important factor in the process of fact-checking (Shin & Thorson, 2017), and informs fact-checking behavior and information seeking practices such as cable news attention (Turcotte et al., 2015).

While fact-checking practices are related to specific pieces of information, the wider information environment is also important to consider. Fears about echo chambers emerge because when people have limited access to diverse views they may be more likely to become entrenched in their existing beliefs and less able to engage in their democratic system. Yet, individuals may engage in practices which help them avoid these partial views. Indeed, it has been argued elsewhere that fears about echo chambers are overstated because individuals, particularly those with a diverse media diet and who are interested in politics, make choices which help them avoid becoming stuck in echo chambers (Dubois & Blank, 2018). We draw on Dubois and Blank's (2018) framework and consider the ways in which individuals can avoid echo chambers from reading political information they disagree with, to checking alternative sources to what they normally do, to trying to confirm political information they have found.

We suggest individuals will engage in these political information verification practices of fact-checking and echo chamber avoidance differently based on their social roles in the political information flow process. The next section explores these roles.

Opinion Leaders, Seekers and Avoiders

The two-step flow hypothesis influentially suggested ideas flow from mass media to opinion leaders who then share them with wider audiences (Katz & Lazarsfeld, 1955). Opinion leaders, seen as experts and who have personal relationships and shared experiences with associates (also called followers), use social pressure and support to influence the opinions of their followers as they share particular messages from mass media (Katz & Lazarsfeld, 1955). Over time, the hypothesis has been modified and applied suggesting that political messages might come from a range of political elites and then flow through multiple opinion leaders in a multistep flow (Weimann, 1982). Some argue that this theory should be retired given that there is limited evidence to support it, and that the media environment has changed (Katz & Fialkoff, 2017). Others also suggest that people are less reliant on interpersonal influence, since direct messaging is more prevalent as a result of an increasingly fragmented society (Bennett & Manheim, 2006). However, others argue that social media provide new opportunities for opinion leaders to exercise their influence (Bode, 2016; Bond et al., 2012; Messing & Westwood, 2014; Turcotte et al., 2015). Here, opinion leaders are characterized by the high interest and engagement with news and high tendency to share content (Barberá et al., 2015).

While the theory has been questioned, critiqued, and updated over time, the basic notion that opinion leaders who are particularly interested in political information and who are willing to share that information are important players in the media ecosystem has remained (Weeks et al., 2017). Opinion leaders are evidently important political players, because they share political information with their followers—those who are unlikely to opt-in or seek political information out themselves. Opinion leaders not only share this information but also serve to filter and curate it based on their relationship with the specific followers they are engaging with (Reicher et al., 2005). They are expected to demonstrate commitment to their followers and uphold certain values (Reicher et al., 2005). In that sense, they act as gatekeepers, disseminating the information they deem relevant to their social circle. It is an important part of their identity to play the role of gatekeeper in which they decide which information to share or not share (Oeldorf-Hirsch & Sundar, 2015, p. 241). This is social pressure and social support and it is based in part on interpersonal trust which is an orientation rooted in core values (Uslaner, 2002). It was found that social media recommendations of news outlets by people seen as quality opinion leaders improves the reader's trust (Turcotte et al., 2015). The alternative is also true; recommendations by "poor" opinion leaders decreases media trust where quality was defined in terms of how informed and honest the person is about politics. Furthermore, for there to be efficient political discussions, there must be trust between an opinion leader and their followers (Turcotte et al., 2015).

Table 1. Opinion Leaders, Seekers and Avoiders.

	Shares information with peers	Does not share information with peers
Seeks information from peers	Leader-seeker	Opinion seeker only (follower)
Does not seek information from peers	Opinion leader only	Avoider

Several studies have shown that friends or followers have influenced the perception of news on social networks (Hermida et al., 2012; Holton et al., 2015; Karlsen, 2015; Weeks & Holbert, 2013). Bergström and Jervelycke Belfrage (2018) find opinion leaders are perceived as central to the news-gathering process on social media. They effectively bring attention to news otherwise missed, add context, and other kinds of information. Users consider them to have an important role in deciding what is important to look at on social media. Moreover, recommendations (i.e., news liked or shared on social media) by opinion leaders would lead to an increase in media outlet trust (Turcotte et al., 2015). This means that opinion leaders' endorsements on social media give credibility to third parties as well. Social cues would thus help users navigate the problematic news flows on networks.

Notably, Wright and Cantor (1967) identify leaders-seekers and avoiders, in addition to opinion leaders and followers (also called seekers). This is in line with more recent work which identified opinion givers, seekers, giver-seekers, and non-discussants (Jung & Kim, 2016). Leaders-seekers, unlike opinion leaders, seek out the opinions of their peers in addition to news media. In contrast, avoiders are isolated from the flow of communication on a particular topic. Table 1 summarizes these types.

Opinion seekers, play "an active role" in soliciting opinions (Wright & Cantor, 1967). Notably, individuals can be both leaders and seekers for a given topic "an individual may both seek the opinions of others about foreign affairs, for example, and yet be asked for his own views on the topic" (Wright & Cantor, 1967, p. 40). In their study, all opinion seekers, whether they were leaders or not, discussed the news with their peers when only a small percentage of leaders only did. None of the opinion leader only type considered their peers as an important news source. Thorelli and Becker (1980) suggest opinion leaders may also be information seekers and Flynn and colleagues (1996) view opinion seeking as "a co-phenomenon of opinion leadership, which occurs when people seek information and advice about products and services from knowledgeable others." Shoham and Ruvio (2008) note individuals are not born leaders or seekers, they develop these behaviors.

In contrast avoiders are isolated from the flow of communication on a given topic and do not seek an active role. Like opinion seeking, opinion avoiding is not an all or nothing phenomenon, it can vary by topic (Wright & Cantor, 1967). Most research on avoiders has been done in the marketing context. They have been called "non-discussants" (Jung & Kim, 2016), "active rejecters" (Leonard-Barton, 1985, p. 915), "rejecters" (Midgley, 1977, p. 145), or "inactive" (Robinson, 1976, p. 311). Similar studies have also been conducted in terms of news consumption identifying "avoiders" and "news seekers" (Ksiazek et al., 2010; Stromback, 2017). Avoiders tend to avoid media coverage of a given topic and consume relatively little news contrary to the seekers.

This marked difference in behavior could influence their attitudes toward media and lead those who participate more actively to trust more. Indeed, seekers-only and avoiders would be less likely to trust news in the media than opinion leaders and leader-seekers because they engage less with media in general. It has been found that political interest, exposure to television news and newspapers, and interpersonal trust were positively correlated with trust in media. Moreover, the more people are exposed to mainstream media, the more they trust it. And so, trust in media seems to be associated with interest, exposure, and interpersonal trust (Tsfati & Ariely, 2014; Tsfati & Cappella, 2003). As such we hypothesize the following:

H1. Opinion leaders and leader-seekers are more likely to trust news in the media than seekers-only and avoiders.

Given avoiders lack of news media consumption, we suggest they will not feel the need to fact-check, whereas opinion leaders and leaders-seekers are more likely to fact-check to preserve their reputation as a leader. Additionally, as fact-checking requires a certain degree of vigilance and awareness, individuals may decide to trust others' fact-checking efforts (Jun et al., 2017). This could lead to users have potentially different roles in the verification of online information. We hypothesize as follows:

H2. Opinion leaders and leaders-seekers are more likely to fact-check online than seekers-only and avoiders.

Similarly, avoiders are less likely to have diverse news media consumption habits which could make them more vulnerable to echo chambers. Since the echo chamber phenomenon occurs when individuals expose themselves to viewpoints which resonate with them (Jamieson & Capella, 2008), we hypothesize as follows:

H3. Opinion leaders and leader-seekers are less likely to get caught in echo chambers than seekers-only and avoiders.

Methods

To respond to these hypotheses, we draw on survey data from the Quello Search Project. A random sample of 2,000 Internet users in France was collected in January 2017. Post-stratification weights were used to re-weight responses to census proportions for age, gender, and region. The data collection was funded by Google, but Google has not had access to, or influence on, this article prior to publication.

We constructed two dichotomous independent variables in order to categorize people in terms of their opinion leading and opinion-seeking behaviors: *Opinion leading* is operationalized as those with above average political information and news consumption and above average online political participation.

Political information and news consumption was assessed using the questionnaire item "When looking for information about POLITICAL news, issues or elected officials, how often do you go to . . . " Responses were measured on a 5-category Likert-type scale from *Never* to *Very often* for six online and six offline media. We created a scale ranging from 0 to 48, which is the sum of responses for all 12 items. We then found the average, 16.84, and made a new dichotomous variable that was *above* (1), or *equal to*, or *below average* (0).

Online political participation was created by taking the average of two online participation questionnaire items and then categorizing people as *above average* (1), or *equal to*, or *below average* (0). The two questionnaire items were as follows:

"How often have you ever done any of the following on social media?":

- Clicked the "like" button in response to POLITICAL comments or material posted by someone else (even though you might disagree with it).
- Posted a comment in response to a POLITICAL post or status update from someone else.

Ultimately, all respondents were categorized as either *opinion leaders* (1) or *not opinion leaders* (0).

Opinion seeking is operationalized as those who seek out the political opinions of friends and family. The questionnaire item we used was: "When looking for information about POLITICAL news, issues or elected officials, how often do you go to: Family and Friends." Response options were *very often, often, sometimes*, and *never*. We reconstructed this variable as dichotomous, where very often and often indicate *opinion seeking* (1) and sometimes never indicates *not seeking* (0).

Notably, the operationalization of opinion leadership and following or seeking has been inconsistent over studies (Dubois & Gaffney, 2014; Katz & Fialkoff, 2017). While we believe our operationalizations make sense for the study at hand, when comparing with other work it is important to keep the specific approach to measurement in mind as it can lead to different results.

We constructed three dependent variables: *trust* in news media was constructed by taking the mean of seven items in response to this questionnaire item: "On a scale of 1 to 5, where 5 is totally reliable and accurate and 1 is totally unreliable and inaccurate, how reliable and accurate would you rate the information found in. . . ." The seven items were: newspapers, television, radio, online news (like newspapers or magazines), social media, search engine results, and family, friends, or colleagues. Higher scores are indicative of higher levels of trust in news media.

Fact-checking habits were constructed by taking the mean of two items which represent frequency of engaging in fact-checking. The first questionnaire item was: "Now we'd like you to think about the different things people do online. How often do you go online for the following purposes?

- Find or check a fact."

Response options were *several times a day, daily, weekly, monthly, less than monthly*, and *never*. The second item was: "Some people use a search engine to check questionable news they read or see on a social media site. Others do not. How often do you use a search engine to double check whether something on social media is true or false?" Response options were *check anytime I doubt something on social media; occasionally check when it is important to me; hardly ever check; never use a search engine to verify news on social media; I don't check, I just disregard anything that I don't trust*. Higher scores on this variable signify higher levels of fact-checking habits.

Echo chambers likeliness is operationalized based on Dubois and Blank (2018). It is calculated by taking the mean of five items. The first four questionnaire items were, "When looking for news or political information, how often, if ever, do you . . .

- Read something you DISAGREE with?" (which we call "Disagree");
- Check a news source that's different from what you normally read?" (which we call "Different");
- Try to confirm political information you found by searching online for another source?" (which we call "Confirm").
- Try to confirm political information by checking a major offline news medium?" (which we call "Offline")"

The fifth item was, "Thinking about recent searches you have done online using a search engine, how often have you discovered something that CHANGED your opinion on a political issue?." All are based on a 5-point Likert-type scale from *Never* to *Very often*. Higher scores on this variable indicate a higher tendency to be in echo chambers.

We considered age, gender, education, income, work status, self-reported ability to use the internet, number of social

Table 2. Summary of Variables.

Variable	Coding	*M* (*N*)	*SD* (%)
IV			
Opinion leader	1 = *leader*	337	20%
Opinion seeker	1 = *seeker*	541	33%
DV			
Trust in media	Composite score (max = 5.00)	3.29	0.66
Fact-checking	Composite score (max = 5.00)	3.61	0.91
Echo chambers	Composite score (max = 5.00)	2.84	0.87
Controls			
Age	Scale (18–88)	45.74	16.74
Gender	Nominal (1 = *female*)	1,020	51%
Education	Nominal (2 = *secondary*)	1,212	61%
(1 *no qualification*, 2 *secondary*, 3 *further education*, 4 *higher education*)			
Income	Monthly household income, euros	2,919.18	1,686.78
Work status	Nominal (2 = *employed*)	1,116	56%
(1 *student*, 2 *employed*, 3 *retired*, 4 *unemployed*)			
Self-report internet ability	*Bad to excellent* (1–5)	4.14	0.67
Number of social media accounts	Number of accounts (0–9)	2.89	2.14
Political interest	Level of interest (1–4)	2.56	0.92
Political participation	Number of ways (0–12)	2.62	2.50

IV: independent variables; DV: dependent variables.

Table 3. Opinion Leading and Seeking Breakdown.

	Shares information with peers	Does not share information with peers
Seeks information from peers	Leader-seeker *n* = 213 (13%)	Opinion seeker only (follower) *n* = 328 (20%)
Does not seek information from peers	Opinion leader only *n* = 124 (8%)	Avoider *n* = 966 (59%)

media, political interest, and political participation as control variables. Table 2 summarizes each of our variables.

We used 2 (opinion leader or not) × 2 (opinion seeker or not) analysis of covariance (ANCOVA) analyses to compare the effects of independent variables and their interaction on the dependent variables while accounting for all controls. Basic data assumptions for ANCOVA such as normality were satisfactory in this dataset. A check for univariate outliers revealed five cases of extreme outliers ($z < -3.29$) in the fact-checking variable and eight extreme cases in the trust variable; these cases were thus removed from the analyses.

Results

We first categorized respondents along our two independent variables: opinion leading and opinion seeking. Table 3 summarizes how many respondents fit into each category.

Findings from a chi-square analysis ($\chi^2(1) = 172.86$, $p < .001$) suggest a significant association between the opinion leading and opinion seeking variables. When respondents are leaders, they have a higher propensity to also be seekers. When they are not leaders, they had a higher propensity to also not be seekers. In other words, there is a higher tendency for respondents to either be leader-seekers or avoiders, rather than being a standalone opinion leader or opinion seeker.

Next, a series of ANCOVA analyses were executed to compare the opinion leading and opinion seeking variables on all three dependent variables: trust in news from the media (trust), fact-checking habits (fact-checking), and likeliness of getting caught in echo chambers (echo chambers) while controlling for age, gender, education, income, work status, self-reported ability to use the Internet, number of social media, political interest, and political participation.

Trust

The findings revealed statistically significant differences in trust, suggesting that being an opinion leader resulted in higher averages of trust in media compared to non-leaders, $F_{(1,1336)} = 34.21$, $p < .001$, $\eta^2 = .025$. The findings also suggest that being an opinion seeker resulted in higher averages of trust compared to non-seekers, $F_{(1,1336)} = 28.10$, $p < .001$, $\eta^2 = .021$. As Figure 1 shows, there is a statistically significant

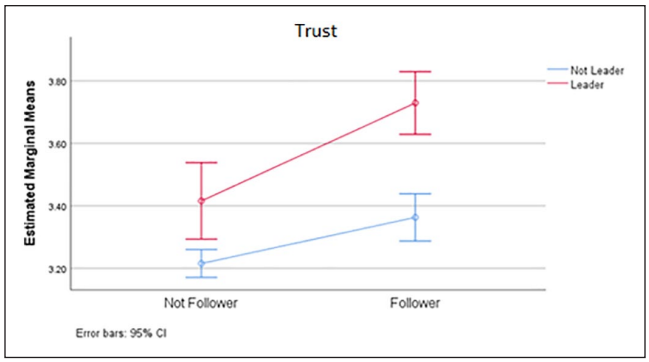

Figure 1. Opinion leaders' and opinion seekers' tendency to trust.

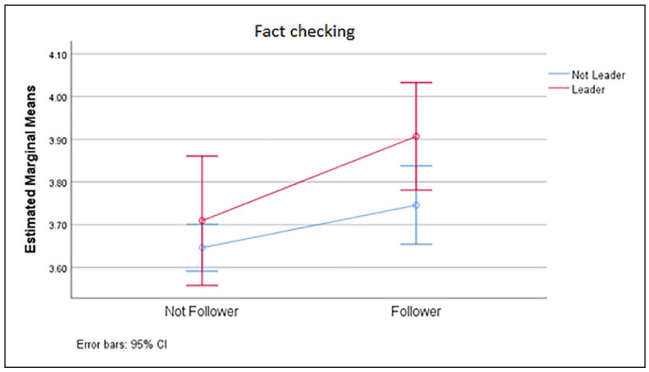

Figure 2. Opinion leaders' and opinion seekers' tendency to fact-check.

interaction between both variables, $F_{(1,1336)} = 4.46$, $p = .035$, $\eta^2 = .003$. This means the highest levels of trust occurred when respondents were leader-seekers and the lowest when they were avoiders.

In response to H1, we find support for the hypothesis that leader-seekers are more likely to trust news in the media than seekers-only and avoiders. However, the leaders-only group does not appear statistically different from the seekers-only group.

Fact-Checking

Fact-checking was highest for leaders versus non-leaders ($F_{(1,1386)} = 4.82$, $p = .028$, $\eta^2 = .003$) as well as for seekers compared to non-seekers ($F_{(1,1386)} = 6.26$, $p = .012$, $\eta^2 = .004$). Unlike when we considered trust, there was no statistically significant interaction between the variables (see Figure 2). Fact-checking was highest for leader-seekers and lowest for avoiders.

In response to H2, we find support for the hypothesis that leader-seekers are more likely to fact-check than avoiders, but not more significantly than seekers-only. However, the opinion-leaders-only group does not appear statistically different from the rest.

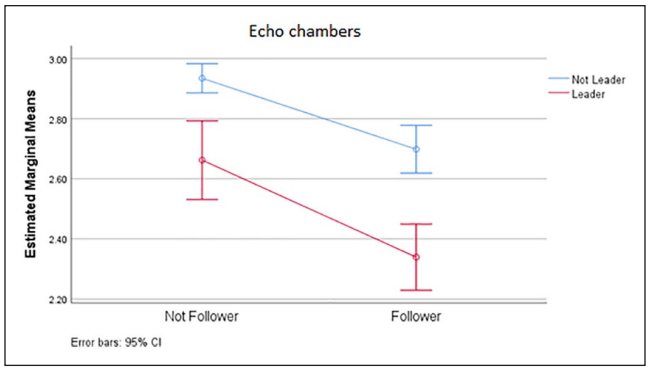

Figure 3. Opinion leaders' and opinion seekers' tendency to be caught in an echo chamber.

Echo Chambers

Opinion leaders were less likely to be caught in echo chambers than non-leaders ($F_{(1,1359)} = 35.16$, $p < .001$, $\eta^2 = .025$) and the same was true for opinion seekers ($F_{(1,1359)} = 34.04$, $p < .001$, $\eta^2 = .024$). There was no statistically significant interaction between the variables (see Figure 3), however; echo chambers appeared the most prevalent for avoiders and the least frequent for leader-seekers.

In response to H3, we find support for the hypothesis that leader-seekers are less likely to get caught in echo chambers than seekers-only and avoiders. However, once again, the leaders-only group does not appear to be statistically different from the seekers-only group.

In sum, leader-seekers and avoiders appear to be the most prevalent among respondents in this sample. However, they show very different types of outcomes. Leader-seekers significantly trust more and are less likely to be caught in echo chambers than any other group, and avoiders are less trusting and more likely to be caught in echo chambers. Additionally, opinion-seeking in general seems to be associated with more fact-checking. While our hypotheses are generally supported, there are important nuances.

Discussion

Opinion leaders, who typically consume political information and news at a higher rate and who share their political opinions with others, are important players in the political and media system (Katz & Lazarsfeld, 1955). In the context of low trust in social media for political information and news, individuals likely rely more than ever on social cues to assess the relevance of content. Opinion leaders are perfectly placed to support peers in deciding what information they need to pay attention to and what they should question. Opinion leaders can serve as a trusted source for information and thus have the potential to insulate their followers from threats of problematic information flows on social media but they could also amplify the effects of disinformation and

echo chambers if their political information verification practices are poor. We consider trust in news media, fact-checking, and behaviors to avoid echo chambers in order to assess whether opinion leaders and leader-seekers differ from seekers/followers or avoiders in their political information verification practices.

We find partial support for our first hypothesis that H1: opinion leaders and leader-seekers are more likely to trust news media than seekers-only and avoiders. Leader-seekers are more likely than all to trust news media but opinion leaders (who are not also seekers) are not statistically significantly different from the seekers only group. Interestingly, while opinion leaders are more trusting of news media that non-leaders, opinion seekers are also more trusting than non-seekers. There is a significant interaction between the leader and seeker variables which means that those who are both opinion leaders and seekers (leader-seekers) are in fact most trusting while avoiders are least trusting. A similar relationship appears for our other two dependent variables. We find partial support for both H2: Opinion leaders and leaders-seekers are more likely to fact-check online than seekers-only and avoiders; and H3: Opinion leaders and leader-seekers are less likely to get caught in echo chambers than seekers-only and avoiders. Leader-seekers are more likely to engage in fact-checking and in practices which help them avoid echo chambers than other groups, and avoiders are least likely to engage in these practices. But again, both opinion leaders and opinion seekers have higher levels of fact-checking and are more likely to avoid echo chambers than non-leaders or non-seekers.

Ultimately, we find there are important differences in the political information verification practices of individuals based on whether they lead and/or seek opinions. Our results point to the importance of considering both opinion leadership and opinion seeking behaviors when attempting to understand the role of individual social cues for trust in political information and news sharing on social media. In this discussion, we first review the implications of these findings in the context of opinion leadership theory before turning to the implications of these findings for social media companies attempting to address threats of problematic information flows on their platforms, namely disinformation and echo chambers.

Political Opinion Leader-Seekers on Social Media

People who are leader-seekers have the strongest political information verification practices among our sample of the French population. While we expected leader-seekers to trust media more, fact-check more, and do more to avoid echo chambers relative to avoiders, we did not expect them to be different from opinion leaders who do not also seek opinions of their peers. We anticipated leaders, given their higher than average consumption of political information and news, would excel in this area and that being both a leader and a seeker would not change much. We anticipated those who are seekers only—people who are more likely to rely on friends, family and colleagues and not other news media—would be less likely to have developed strong political information verification practices because they may not have felt the need to since they trust those they follow and do not have as much experience with other sources.

Yet, our results clearly point to the importance of considering opinion-seeking behaviors when trying to understand the flow of political information and news on social media. The argument for focusing on seekers as well as leaders typically relates to trying to assess the impact or effectiveness of opinion leaders; however, our findings suggest seekers themselves have behaviors which make them different and more likely to deal with problematic flows of political information on social media.

Leader-seekers especially, but also those who are uniquely opinion leaders or opinion seekers, are more likely to have strong political information verification practices, which means they are less likely to spread disinformation or to amplify echo chambers. This has positive implications for our democratic intuitions: while not everyone engages in fact-checking, those who are most prominent voices in proliferating news (opinion leaders and leader-seekers) have high levels of fact-checking and frequently do things to avoid echo chambers, meaning that they are more likely to uncover accurate information from a broader range of perspectives. In this way the information they share, even if it must flow through a social media platform that does not require verification for accuracy or completeness of perspective, has been verified by the person sharing the content. Opinion seekers follow this same pattern. This means there is a dual layer of protection against disinformation and echo chambers in the behavior of seekers: opinion leaders engage in fact-checking behavior and so do seekers.

Opinion avoiders, in contrast, are most at risk because they consume very little political information and rarely fact-check or do things to avoid being in echo chambers. They exist in isolation from the flow of communication, playing a passive role. Opinion avoiders are also least likely to trust news media, which is an interesting finding because past studies show lower trust in news media can lead to increased fact-checking (Fletcher & Park, 2017). Even when we controlled for political interest and political participation the relationship remains significant. This suggests that the relationship between trust and fact-checking or being in an echo chamber should be further studied.

The strongest effect is found when individuals are both opinion leaders and seekers. They are exposed to a variety of different perspectives—both those they seek out from the news in addition to those individuals who they follow. This could be because individuals who consume political information and news from news media also discuss that information with their peers and learn more than they would have otherwise. They may also gain new media and digital literacy

skills by learning from the practices of others through discussions in which political information and news is shared, this points to a potential fruitful avenue for future study.

How Platforms Can Design Around the Social Setting

As social spaces, social media platforms can be designed to harness the power of existing social relationships where they are helpful or dissuade them when they are not. To date, a focus on personalization and optimizing for clicks, likes, and shares has led to a situation on most popular social media platforms where sensational information spreads fast, regardless of accuracy (Innes et al., 2019), and people tend to encounter more information that conforms to their existing beliefs in what has been called an algorithmic filter bubble (Pariser, 2011). These information flows are potentially problematic in democratic contexts where people require accurate information from a broad array of perspectives in order to form political opinions and make an informed choice when voting (Delli Carpini, 2000). Regardless of the extent to which these flows are in fact problematic, governments, platforms, civil society groups, and the general public largely are pressuring social media platforms to create a more trustworthy environment for political information and news consumption. We suggest one avenue for increasing this type of trust is for platforms to recognize the different behaviors of their users based on leading and seeking roles in order to incentivize information practices, which are helpful for avoiding the spread of disinformation and for avoiding echo chambers.

For example, social media has supported the growth of influencer marketing with brand ambassadors across platforms (Carter, 2016; Schwemmer & Ziewiecki, 2018). There has been a professionalization of being a YouTuber, added permissions and power for Reddit moderators, and a shift toward supporting Groups with administrators and moderators with maintenance responsibilities on Facebook. At the core of these choices is an underlying recognition that those who share opinions that are in turn responded to by the immediate community are the actors worth supporting. These are influential members of particular communities who play a leadership role. Political opinion leaders are one subset of this group in the particular context of sharing political information and news.

When platforms think about how to respond to threats of disinformation or echo chambers the calculation of what types of actors to support, and what behaviors to incentivize, must change. While leading behaviors are important, according to our findings, so too are seeking behaviors. Platforms could develop metrics for seeking behaviors in addition to their existing metrics for leading behaviors in order to shine a light on the value of these types of actors and further incentivize these behaviors.

Knowing when to trust and when to fact-check news and political information, as well as the various acts to avoid echo chambers we examined are in line with existing suggestions about what makes a social media user social media literate. By embedding incentives for leader-seeker behavior, rather than just leader behavior, into a platform's system, that platform can make use of existing social relationships to facilitate democratically helpful responses to the flows of political information which exist on their platform.

Limitations, Future Work, and Conclusion

Of course, social media platforms are not monolithic. Each platform has a unique social context which has evolved over time and which will continue to change and some platforms may already consider seeking practices to some extent. Furthermore, the use of each different platform can vary from community to community, and country to country. We have examined social media users in France at one point in time. While the French population is similar to many other Western democracies, particularly in Europe in terms of social media use, as well as news and political information consumption and trust, replications and extensions of this study in other places are needed.

Furthermore, we rely on self-reported survey data which is limited because people tend to want to provide socially desirable responses and suffer from memory bias (Fowler, 2014). Despite careful questionnaire development and testing and the use of multiple items in constructing our variables, these potential biases are unavoidable. However, the alternative is behavioral trace data, which is unavailable across varied platforms for technical and privacy reasons. Additionally, social media users, concerned by their privacy, are increasingly using encrypted and messaging services making it harder to monitor (Newman et al., 2018). The roles of opinion leaders, opinion seekers, leader-seekers, and avoiders extend beyond social media and as communication technologies, norms, and preferences change we can expect that their behaviors and roles may shift. It will become harder to gather behavioral trace data about these users and so survey approaches like the one we have used are likely to be important. It is therefore helpful to have this initial study as a benchmark that future work can rely on.

Future work should also consider the relationship between opinion leaders or leader-seekers and the specific seekers and avoiders they encounter. We have assumed that the relationship between those who provide information and opinions and those who receive it has remained relatively stable. Yet, it is possible that the relationship between leaders or leader-seekers and others is relative to levels of trust in other sources of political information and news. We have argued this likely makes leaders and leader-seekers even more powerful in the current political and media environment, but deeper empirical study of this question is needed.

In sum, both opinion leading and opinion-seeking behaviors are related to information verification practices, which help people insulate themselves against threats of disinformation and echo chambers. Leader-seekers are best placed to respond to problematic flows of political information and news on social media. They are also important and trusted actors in the political information system and may offer their followers added protection against these threats. Social media platforms, struggling to find ways to address these threats, can learn to work with the seeking behaviors as well as the leading behaviors of their users in order to better support high-quality information verification practices. In doing so, social media platforms can support the role of opinion leaders and leader-seekers who are already seen as trusted communicators in the eyes of their followers. While people may not trust a social media algorithm, they may trust opinion leaders and leader-seekers who are incentivized by those algorithms. This approach is, of course, not without its own challenges but understanding and incorporating existing social relationships into the tools which help people share and engage with political information and news remains worthwhile.

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