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Fact-Checking Practices by Canadian Adults During an Era of Misinformation and Disinformation

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Abstract:

Since 2016, the term "fake news" has become incorrectly synonymous with the concepts of misinformation, disinformation, propaganda, and even conspiracy theories, leading to the assumption that they are interchangeable (Guess & Lyons, 2020). Fact-checking can be viewed in two ways: fact-checking conducted by fact-checking organizations – third-party or otherwise – and an independent person fact-checking information they have come across, using a fact-checking website, or their own methods. We surveyed 99 Canadian adults (aged 18-64) on how they define and practice fact-checking using an open-ended, qualitative method. The study results reveal that Canadians engage in a diverse range of fact-checking behaviors. Specifically, we found 10 distinct approaches to fact-checking that are also consistent with how these participants defined fact-checking, with the most common four being: Google and cross-referencing, credibility of source, different perspectives, and skeptical/anti-mainstream. The findings of this study provide Canadian researchers, educators, and policy makers with a greater sense of clarity on the issue of fact-checking practices within Canada, and consequently, provide promising practices for how to engage in fact-checking.

***Keywords*:** Fact-Checking; Misinformation; Disinformation; Fake News; Social Media.

Introduction

Over the past five years, educators, journalists, politicians, and policymakers have been scrambling to respond to the intense rise in disinformation and "fake news". The suggested solution has primarily been linked to media literacy (Brisola & Doyle, 2019; Mihailidis & Viotty, 2017). However, the underlying assumption is that the average citizen does not know how to differentiate between real or fake news and as such, policy and education curricula need to invest more resources in media literacy skills (boyd, 2017; Brisola & Doyle, 2019; Gaultney et al, 2022; Mihailidis & Viotty, 2017).

Research indicates that the problem is much more complex and nuanced (boyd, 2017; Mihailidis & Viotty, 2017). Firstly, people tend to be overconfident about their fact-checking skills, especially when confronted with the idea of critical thinking or media literacy (Bulger & Davison, 2018; Bulger, 2012). Simply put, the average American thinks they are much more competent at fact checking than they are, making them less likely to seek out more knowledge and be open to learning new media literacy skills (boyd, 2017; Bulger, 2012). Moreover, media literacy campaigns - both in research and in policy implementation - tend to focus either on solely youth or seniors, assuming that the adult population has already learned critical media skills (Dennis, 2004; Lee et al, 2021; Rasi et al, 2019; Rasi et al, 2021).

Most importantly, however, is that to date, much of this research has focused on the United States of America, tying it to their current political and cultural landscape. Despite seeing the same spread of disinformation here in Canada, little research has been conducted exploring the fact-checking behavior of Canadian adults. This paper aims to address the following research questions:

- How do Canadians define fact-checking?
- If and how do Canadians engage in fact-checking practices with various media sources?
- What are Canadians 'opinions and habits about fact-checking?

This paper is organized to start with the literature review that provides a detailed overview of current, relevant research selected to ground the research questions and support the analysis of our findings. It will then be followed by an explanation of our choice of research methodology, participants, instrument, data collection, and data analysis. We then present our findings with an analysis of the dataset, focusing on the fact-checking approaches of Canadian adults. Following a discussion of the implications of these results, we provide limitations of the study and suggestions for future research.

Literature Review

What Do We Mean By 'Fake News'?

In the lead-up to the 2016 United States presidential election, then-candidate and now former president, Donald Trump, frequently decried in debates and rallies that information he disagreed with was "fake news" (Quandt et al, 2019). As further evidence of this, Google Trend Maps of

the term "fake news" show that people were only searching the term in the second half of 2016 (Gelfert 2018; Wardle & Derakhshan, 2018). Since 2016, the term "fake news" has become incorrectly synonymous with the concepts of misinformation, disinformation, propaganda, and even conspiracy theories, leading to the assumption that they are interchangeable (Guess & Lyons, 2020). It all means the same thing, after all, right? False information? Wrong.

As Gelfert (2018) deftly notes, the term "fake news" has been used in a myriad - and at times even contradictory - of ways. Importantly, Gelfert (2018) highlights how part of the confusion is due to definitions emerging from different disciplines. From journalism, to law, to information professionals, teachers, and philosophers, all come to the table with their own contextual definitions. In explaining the elusiveness of landing on a perfect definition, Gelfert (2018) suggests defining "fake news" as disinformation.

Indeed, as part of a UNESCO special report on journalism and fake news, Wardle and Derakhshan explain that due to its value-laden and political nature, the term "fake news" eludes true meaning while weaponizing journalism, "undermining reporting that people in power do not like" (Wardle & Derakhshan, 2018: 43). As such, this literature review will define each of these terms – misinformation, disinformation, mal-information, as well as related terms living on the periphery of these concepts, such as echo-chambers, legacy media, and the focus of this article, fact-checking. In addition to clearly defining each concept, each section will also review relevant research as it relates to fact-checking thoughts, behaviours, and practices.

Misinformation vs Disinformation vs Mal-Information

While all three of these concepts describe information that is factually incorrect, and do, at times, overlap, the key difference between misinformation and disinformation/mal information is intent (Guess & Lyons, 2020). According to the UNESCO definition of misinformation, misinformation is "information that is false, but the person disseminating it believes it to be true" (Karlova & Fisher, 2012; Wardle & Derakhshan, 2018). In contrast, in disinformation, the person disseminating it knows it to be false, and is therefore a malicious actor spreading "deliberate, intentional lies" (Gelfert, 2018; Karlova & Fisher, 2012; Wardle & Derakhshan, 2018).

Importantly, Guess and Lyons (2020) differentiate between misinformation, disinformation, and conspiracy theories. While conspiracy theories can be both bolstered by and influence the creation of disinformation, they have their own characteristics and roots that make them a specific phenomenon, and consequently, require different techniques to combat than traditional, "simple" disinformation (Guess & Lyons, 2020).

Mal-information is information that may be true or false but is spread with the intention of "harming another person, organization, or country" (Wardle & Derakhshan, 2018). For example, doxing or leaking information about a person with the hope and intent that they will be harmed or violated would be mal-information – information meant to cause direct harm, regardless of its veracity. A concrete example of this would be the Russian-backed hacking and leaking of Hillary Clinton's campaign emails as a way to directly sabotage her campaign. While

the leaked emails were in fact Clinton's, the act of hacking and leaking was meant to cause direct harm.

The ability to understand the fundamental differences between fake news, misinformation, and disinformation has implications for how and when people will engage in fact-checking behaviours/practices, especially with misinformed actors. Specifically, given that malicious actors responsible for generating disinformation will exert every effort to conceal their identities, it may be easier for the average citizen to point to and correct a misinformed relative re-sharing a piece of disinformation than it is to find the original source creator, usually bots or "troll farmers" organized by political or state actors (Guess & Lyons, 2020).

Indeed, in an experimental study conducted by Torres, Gerhart, and Negahban (2018), social media users 'verification of news shared on social media networks was significantly influenced by their perception and trust of both the news sharer, and the source author, as well as, most significantly, the intention of the person who shared it. However, overall, qualitative research on the connection between fact-checking practices and different types of false information is lacking, especially in contexts outside of American or Russian politics. Our study adds to the literature by exploring this connection between fact-checking and misinformation, and in the underrepresented but equally important context of Canadian politics. Integral to the discussion of misinformation and fact-checking is the burgeoning mistrust of mainstream media, also known as "legacy media".

Legacy Media

As our findings will reveal, a discussion of legacy media is integral to the conceptualization of "fake news", and whether third-party fact-checkers are to be trusted. Legacy media is hard to define, but generally points to mainstream, long-standing media sources that are purported to be under influence from powerful figures such as government, politicians, and/or large corporations (Langer & Gruber, 2021). In Canada, legacy media would be considered our mainstream news sources such as the Canadian Broadcasting Corporation (CBC), The National Post, The Globe and Mail, The Toronto Star, Macleans, and the likes of traditional modes of journalism.

As the media landscape began to shift with the expansion of the Internet and more specifically, social media, media scholars have noted journalism's shift into "hybrid media" (Langer & Gruber, 2021), whereby mainstream media has to compete against emerging, *free*, alternative news sources online and adapt to an Internet-driven information age. Much of communications and political science research has focused on legacy media's role in this shifting landscape, questioning its continued importance (Langer & Gruber, 2021; Ismail, Torosyan, & Tully, 2019). However, in the realm of fact-checking and misinformation, legacy media's importance lies in its perceived credibility as trustworthy and reliable sources, given the underlying assumption of their bias due to financial or political incentives (Langer & Gruber, 2021).

Fact-Checking: Who Does It, How, Where, and Why?

Although not a new concept, fact-checking, much like misinformation, disinformation, and fake news, has taken on a new life and meaning in the past decade. According to the well-established and accepted definition in the field put forth by Graves (2016) and expanded on by Krause et al (2020), the definition of fact-checking is "to investigate claims that are already in the news and social media". Thus, the definition is specific to information circulating in mass media, rather than simply any claim made by any person.

Who Fact Checks? Unsurprisingly, much of the research on who engages in fact-checking focuses on social media users and journalists. Indeed, Brandtzaeg, Følstad, and Chaparro Domínguez (2018) compared the opinions of young European journalists to those of social media users and found that while both groups were skeptical of the utility of fact-checking websites, journalists were more hopeful and saw more potential. Specifically, while social media users were ambivalent about using fact-checking websites, journalists were more skeptical about accuracy and unbiased reporting, stating that they would never rely on only one or two fact-checking sites (Brandtzaeg et al, 2018).

Fact-Checking and Echo Chambers: Although the term describes an action, "fact-checking" has been swallowed by the whale that is political polarization, taking on emotional and political undertones, a phenomenon that is bolstered by the findings of our study, as well as others in the fields of psychology, political science, and journalism studies. For example, Shin and Thorson's study on American fact-checking behaviours during the 2012 presidential election showed that both Democrats and Republicans were more likely to share fact-checking messages or posts that "cheerlead their own candidate and denigrate their opponent" (Shin & Thorson, 2012: 233), perpetuating echo-chambers where people only seek out and place themselves in circles where they are able to confirm their own biases, ignoring information that challenges them. Republican voters were also more likely to express hostile views towards fact-checking organizations, claiming bias, propaganda, and political agendas (Shin & Thorson, 2012). Similarly, Babaei et al (2021) found that regardless of the actual truth of a controversial article's headline, Republicans and Democrats were more likely to believe it to be true or false depending on whether it validated or countered their political narrative.

While some psychology research has found that asking participants to think about the accuracy of a headline alters their ability to judge news correctly (Clayton et al, 2019; Pennycook et al, 2020), other findings on users 'complex motivations for sharing information indicate that combating misinformation is not as simple as implementing fact-checking or media literacy (Scheufele & Krause, 2019; Walter et al, 2020). Specifically, Pennycook et al (2020) found that asking participants to assess the accuracy of a headline on a scale of one to ten nearly tripled their accuracy compared to simply asking them if they would share the same headline on social media. The authors indicate that such priming may be a useful tactic for combating the spread of misinformation online. However, it is unclear whether the participants in Pennycook et al (2020)'s study care about sharing accurate or inaccurate information, regardless of how accurately they can assess its truth.

Moreover, given the complex reasons that people share information on social media, some of which range from the desire to be seen and observe others, to expressing one's opinion, and achieve gratification (Whiting & Williams, 2013), it is unlikely that perception of accuracy alone will change people's sharing habits. Indeed, Su, Liu and McLeod (2018) found that American Twitter users 'perception of bias, believability, importance, and influence of an article impacts the likelihood that a user will share it, and Mosleh et al (2021) found that publicly correcting someone's sharing of fake news increases the sharing of partisan, toxic, and low-quality information in the future.

In fact, there are indicators that such corrections backfire, causing social media users to be defensive and increasingly partisan in their subsequent tweets, replies, and retweets (Mosleh et al, 2021). Relatedly, Oeldorf-Hirsch et al (2020) study on fact-checking labels on websites found that while the presence of such labels on websites such as Twitter, Facebook, and various news sites increases peoples 'perception of the site being more credible or trustworthy, the labels and corrections did not actually change people's minds about the information shared. Most importantly, in a meta-analysis on the effectiveness of fact-checking, Walter et al (2020) found that the more a study design mirrored a real-world fact-checking scenario or asked real-world questions, the more the negligible and non-significant the impact of fact-checking was. Given the mixed results of the various studies described, it is no surprise that scholars and educators are struggling to determine what method(s) can combat the spread of misinformation and break echo-chambers.

The focus on media literacy and/or fact-checking as main interventions to misinformation indicates a possible ongoing assumption that people engage with misinformation because they lack these aforementioned skills. Secondly, the focus has largely been on American or European contexts, with little attention paid to the spread of misinformation and disinformation across Canada (Argentino & Amarasingam, 2021). As such, the goal of our study is to challenge this assumption by exploring what, when, and how Canadian adults are fact-checking, as well as how they define the act of fact-checking.

Methodology

The purpose of this section is to provide an in-depth description and justification of the current study's methods. This section includes a description of the study's choice of research methodology, participants, instrument, data collection, and data analysis.

Choice of Research Methodology

A qualitative methodology was chosen for this study due to the topic, and open-ended nature of the research questions. Moreover, much of the existing research on fact-checking has been quantitative (Brashier et al, 2022; Calvillo et al, 2020; Ribeiro et al, 2022) and lacking a holistic approach. According to Mertler "the purpose of quantitative studies is typically specific and narrow, focusing on only a handful of measurable variables, this is very different from the holistic perspective of qualitative research" (Mertler, 2016: 109). Within the context of this

study, a qualitative approach captures the nuances behind peoples 'fact-checking practices, such as asking participants directly for their definitions, opinions, and specific habits. Within our research context, a qualitative approach offered a space for participants to expand on their survey answers, often times providing pertinent information on nuances and context.

Participants

Due to the Canadian context of the study, we sought participants who live and/or work in Canada. Participants were required to be Canadian citizens by birth, or naturalization; permanent resident, dual/multiple citizens, on a work permit, or international student on a study permit, and be above the age of 18 years old. We strove to obtain as diverse a participant sample as possible in terms of gender, race, level of education, and geographical location within Canada.

Recruitment and Data Collection

Recruitment was done using a snowball method on various social media platforms: Facebook, Instagram, and Twitter. A one-page information document was designed and included in all social media platform posts. The information document included information about the study, including the purpose, research team, instrument (survey), estimated completion time for the survey, contact information, and a URL link to access the survey.

Local and national social media influencer and community pages were contacted to also share the study information poster. Social media influencers are online content creators "who actively disseminate product information and opinions, of which some can attract a mass audience later and become a source of information for their followers" (Cheung et al, 2022). The first social media influencer has approximately 26,000 followers; the second social media influencer has approximately 25,000 followers. Both are public figures and brand ambassadors. The third social media influencer is a public figure with approximately 138,000 followers. Only one social media influencer was paid to share the study. Additionally, the information was shared as a story by a national community group with approximately 150, 000 followers.

First, using Facebook, a post was created inviting participants to take the survey. The post included the information document with a tag to the lead researcher. The lead researcher shared the first post on their personal page, and it was then re-shared by the research assistant on their personal page. The same method was then used for both Instagram and Twitter. The posts were included as "stories", defined as a "collection of images and short videos, with optional overlays and effects, that a user can add to over time, but which disappears after 24 hours." (Bogost, 2018). We requested the social media influencers to repost their story three more times after the original post over the span of two months. We noticed the posts were shared by other followers over the period of time they were visible.

Approval from the Institutional Research Ethics committee has been obtained for this study. Furthermore, each participant was asked to provide consent, prior to participating in the study. An informed consent page was included in the first page of the online survey and required a check off prior to proceeding to the first group of questions.

Survey Instrument

An online survey was created using Lime Survey hosted on the university server space. The survey included three sections. The first was Informed Consent, which included one option to not participate, and the second option was to participate and continue with the survey. The answers from participants were anonymous. The second section was labelled as "About your fact-checking Knowledge & Practices" and included a mix of open-ended, and descriptive questions. The open-ended questions included a long free text box, and the descriptive questions were in the format of multiple choice. The last section was named "About You" and requested demographic information, including, age, gender, citizenship, ethnicity, geographic location, level of education, political party alignment, working status, work sector, and technical computer skills. This section included questions in the format of multiple choice, with a final question soliciting any information the participant in the format of a long free text box.

The instrument was tested approximately three weeks before it was launched. The lead researcher provided a unique survey link to five personal contacts with different computer literacy skills and competences to test the survey and provide feedback. The five contacts were merely chosen to test the survey and were not considered representative of the population to participate. Each contact was asked to provide feedback via phone or by email.

Data Analysis

We divided the questions into two distinct sections. The first group included all the descriptive questions, and the second group included the open-ended questions. For the descriptive questions we computed frequencies to gain an overview of the distribution of the answers. All the data was entered on an Excel spreadsheet. A reflexive thematic analysis was used to code the open-ended questions in an effort to work with an "easily accessible and theoretically flexible interpretative approach to qualitative data analysis that facilitates the identification and analysis of patterns or themes in a given data set" (Byrne, 2021: 1392).

Two researchers were involved with data analysis in this research project and followed Braun and Clarke (2012), six-phase analytical process. First, we engaged in a 'familiarisation ' phase to become extremely familiar with the entire dataset, which provides the opportunity to "be able to identify appropriate information that may be relevant to the research questions" (Byrne, 2021: 1398). Next, we generated initial codes, using primarily a flat coding frame which provided the same level of specificity and importance to each code. Through repeated iterations of coding, we identified which codes add value to the themes, and which can be disregarded. Following this we generated themes and sub-themes from various codes and sub-codes. In the next phase we revised and removed certain themes to "facilitate the most meaningful interpretation of the data" (Byrne, 2021: 1406). This was especially difficult with some of the fact checking practices with so much overlap in approaches. We then defined and named each theme and provided the write up.

To ensure rigor and trustworthiness, the researchers established credibility as defined by Lincoln and Guba's (1985) as confidence in the 'truth' of the findings. Inter-rater reliability was established with two different researchers reviewing the data and analysis. Furthermore, both researchers spent adequate time following current events, news, social media stories, and speaking with a range of people outside the study. This prolonged engagement involved deep diving in various media outlets and platforms to stay up to date in various social movements related to fact-checking, specifically within the Canadian context of the Convoy 2022 movement. We strove to gather a broad base of sampling for the survey, reaching out to as many different politically aligned social media groups and influencers to spread the survey.

Findings

Who Participated in the Study

Ninety-nine participants participated in the study. Most of our participants were aged between 26 to 65 years old. Most of the participants were Canadian by birth or by naturalization and resided in Quebec and Ontario. Unfortunately, despite our best efforts at recruiting a diverse participant pool, the majority of our participants identified as White, n=89. Men were a minority with only n=27. Of the participants that answered the question, the majority indicated that they do not identify with any political party, n=38.

Our survey looked to answer three research questions: 1.) How do Canadians define fact-checking? 2.) If and how Canadians engage in fact-checking with various media sources? 3.) What are the Canadians 'fact-checking opinions and habits? Although our survey had 12 questions, only those that answered our research questions surrounding Canadians 'fact-checking opinions and habits are presented in this article. Overall, over 95% of participants answered every question. Data analysis reveals that the majority of Canadian participants fact-check to some degree, and more importantly, the approaches to fact-checking are largely similar. Specifically, we found 10 distinct approaches to fact-checking, with some participants falling into a hybrid of approaches. Overall, the results indicate that while almost all participants engage in similar fact-checking behaviours, the difference lies in what sources are considered reliable and trustworthy.

Defining Fact-Checking

The most common phrases amongst our Canadian participants when asked to conceptualize fact-checking are: source-related, verifying/verification, bias, trust, accuracy, and reliability. Specifically, to the majority of participants, fact-checking means that either the original source or the sources used to verify information are credible, reliable, trustworthy, and unbiased. However, what is considered credible, trustworthy, and unbiased varies widely, and are even in opposition. For example, a few participants state:

> *Fact checking is cross checking information presented by individuals, media, or groups with reliable sources of information (meaning Stats Canada, peer reviewed journals, university data bases, trusted newspapers such as the New York Times, Globe and Mail,* (Participant 37).

> *Fact-checking means checking the veracity of a something stated as a fact. This can take the form of investigating multiple other information sources for corroboration of information presented by an original source. "Multiple sources" is usually considered to include "reputable sources" and sources unlikely to include bias* (Participant 10).

While the above examples indicate the importance of cross-referencing using reliable sources and go on to specify mainstream and/or legacy media outlets, a few other participants expressed distrust of these very same sources.

> *Fact checking to me currently means third party verifiers review information based off of articles, news reports and data. Often times this is from mainstream media, which tends to stray in one direction and can be biased. Ex: CBC is deemed a reliable source for fact checking. However, during their coverage of the freedom Convoy they released « factual » information, which recently had to be retracted due to reporting wrongful claims. Therefor fact-checking is not always credible* (Participant 148).

Read aside Participant 7's response, both Participant 37 and 148 taken together reveal a transparent political polarization between trust and mistrust of mainstream and legacy media. While both are able to define what fact-checking is, and point to reliability and credibility as features, it seems that P148 is mistrustful of mainstream media and because they associate mainstream media to fact-checking, come to the conclusion that fact-checking itself is "not always credible". Similarly, Participant 171 outright associates fact-checking with political agendas, stating that fact-checking is an "opinion tailored to the narrative that is funding fact checkers". As will be expanded upon in the discussion, these findings echo current and past research addressed in our literature review.

Another interesting finding is a recognition of the erosion of fact or truth itself. For example, Participant 171 discussed above states that fact-checking is an "opinion tailored to a narrative". Another participant, Participant 27, says fact-checking is "truth as best you can find it". This finding is further bolstered by answers provided to Q6 - describe when you feel the need to fact-check information, which we will address further down in this section.

Approaches to Fact-Checking

How participants define and conceptualize fact-checking is corroborated by their approaches to fact-checking when they choose to engage in it. When asked how they fact-check information, most participants (66/81) fell into one of the following ten approaches (see Table 1).

Thirteen participants have an approach that is a hybrid combination of two or more of the ten approaches. The most common approaches to fact-checking are Googling and cross-referencing, fact-checking the credibility of the source, and looking for different perspectives.

Approach	Number of Participants
• Google and Cross Reference	14
• Credibility of Source	14
• Different Perspectives	12
• Skeptical/Anti Mainstream	7
• Research and ask Subject Matter Experts (SME)	6
• Professional Sources and Research	4
• Original Source	3
• Gut Feeling/Emotional Method	2
• Outliers	6
• Hybrid Approaches	13
Total	81

Table 1: *10 Approaches to Fact-Checking*

Google and Cross-Referencing

One of the most common fact-checking approaches amongst our participants is to Google the topic or article at hand and read whatever sources are on the first few pages of Google's search algorithm. In addition to mentioning Google search methods, almost all of the participants who fall into this fact-checking approach also mentioned using "reliable" sources, yet do not specify what sources they consider reliable, or how they determine whether a source is reliable or not. The most common words used by these participants to describe their fact-checking approach are: "verifying/verification", "trust", "reliable", and "doing own research". Below are some illustrative examples of this pattern found across participants of this approach:

> *I Google the topic and read about the information. I usually read it in the order it populates on my feed (reliable source or not). I keep reading articles until I feel I have a good enough perspective from a variety of sources*. (Participant 17)

> *Several Google searches from many reliable sources.* (Participant 96).

> *When I find the information, I'm looking for I will cross reference it with other forms of information.* (Participant 134)

> *Cross reference with the online fact checking sources. Other news outlets and people I trust in my social circle*. (Participant 192)

Participants reach for Google first when looking to fact-check a piece of information, and then cross-reference using select "reliable" sources. Further, the quotes illustrate that the implicit motivation behind these participants 'fact-checking approach is to verify and confirm what they already believe to be true. For example, Participant 134 states "When I find the information, I'm looking for I will cross reference it…" The statement "when I find the information *I am looking for*" indicates that this participant already has a goal in mind and is self-directing towards a confirmation bias. Similarly, Participant 192 mentions "people I trust in my social circle". The allusion to this participant's trusted social circle means they are likely to confirm their own thoughts towards a piece of information, rather than look for an unbiased account. While these participants mention "reliable sources" frequently without elaborating on what that means, those whose fact-checking approach was looking for credible sources were explicit in their meaning and approach.

Credibility of Source

Checking the credibility of source means participants are concerned with fact-checking the source's legitimacy, such as checking the source's funding, political leanings, the source's author, and the source's previous publications. This is congruent with how these same participants define fact-checking.

In contrast to Google and Cross-Referencing approach, these participants discuss what sources are considered reliable to them and how they seek them out. All these participants consider legacy media (NY Times, Globe and Mail, Montreal Gazette, CBC, TVA Nouvelles, LaPresse, RDI, NBC), subject matter experts (SMEs), policy makers, politicians, and professionals as trustworthy sources. One participant cites that they maintain a blacklist of what they consider to be non-credible sources like Fox News (owned by Suzanne Scott), and Truth Social (owned by Donald Trump). Other participants within this approach define fact-checking as engaging in a thorough background check of the author producing the content, to verify their credibility and accuracy, such as the participants below:

> *Start by looking up the author background and then the article background*
>
> (Participant 165)

> *Get more context about who is sharing this information and why they are sharing it, verifying whether they are a credible authority.*
>
> (Participant 190)

> *I look to see their alignment and bias. I try to find other sources saying the same thing. I check the references in the text. If they only cite themselves or same person over and over that's a red flag. I read some of the texts cited. Or look up people that have been interviewed. Try to find the original source of information.*

> *I will use a fact checker and then if I cannot interpret something or if I am not sure, I do not share it.*
>
> (Participant 214)

> *I verify the source: is the source credible, is it overly partisan, is it an alternative platform used by people whose views aren't acceptable on mainstream platforms, is the source generally used by ultra right-wing groups, etc. I verify the information itself: who else has said this, where was it originally from. I verify the credentials of the person saying it (e.g. during the pandemic a lot of false information has been spread by people with so-called "scientific" qualifications in completely unrelated fields). I consider who gave me the information (someone who is generally well-informed, someone who believes in conspiracy theories, someone with very strong partisan political leanings, etc.).*
>
> (Participant 214)

As the quotes highlight, these participants know what a "credible" or "reliable" source means to them, and how to go about verifying that. Most of these participants are also cognizant of the credibility of sources when asked to define the term fact-checking. Unique to this approach compared to the others is the explicit acknowledgement that they do not share information if they are unsure of its credibility, as highlighted by Participant 214 above.

Different Perspectives

Perhaps the most extraordinary approach when compared to the others, are the participants who look for different perspectives. These participants are hyper-conscious of bias, neither blacklisting some sources, nor looking to simply validate their own opinions or beliefs. Whereas those who engage in the "credibility of source" approach go so far as to blacklist sources they find unreliable, and those who Google are often looking to verify existing conclusions, participants looking for different perspectives will read from all opposing sides to cross-reference. The participants of this approach are not concerned with source credibility in the traditional sense, and the word "reliable" does not appear frequently. In contrast, some of these participants mention accessing the knowledge of people with various lived experiences, including Black Indigenous, People of Colour (BIPOC).

These participants are concerned with accessing unbiased information and do so by reading from "a spectrum of news from various sources - right and left - and try and figure out what makes the most sense" (Participant 53). For these individuals, almost all 12 of them conceptualize the truth as lying "somewhere in the middle" (Participant 176) and believe they can obtain that by accessing different perspectives.

> *Google several sources. Read a spectrum of news from various sources - right and left - and try and figure out what makes the most sense.*
>
> *(*Participant 53)

> *Look for experts with different perspectives, research the topic, make an informed decision.*
>
> (Participant 69)

> *Search for the same story on multiple sites (left wing, right wing) and look for the truth somewhere in the middle.*
>
> (Participant 176)

> *I check social media for views from trusted friends and people I follow. I seek BIPOC voices for different perspectives on most topics.*
>
> (Participant 211)

> *Find alternate news stories, compare by trying to find as many different views of the situation as possible including video from different angles where applicable. Read the actual studies from which the stories were written. Check credentials of medical experts and use veterinary/medical databases to determine if complaints have ever been filed against them on the medical board websites. Fact checking websites such as Snopes occasionally but taken with a grain of salt.*
>
> (Participant 13)

Overall, these participants were specifically concerned with political bias from both right-wing and left-wing sources and are more interested in personal experiences. Participant 13 is particularly interesting because they discuss looking for literal different perspectives in the form of camera angles of recorded video of events. Additionally, they mention using fact-checking websites, but "with a grain of salt", indicating a lack of trust. As such, they are less concerned about finding "credible" sources, and more interested in piecing together a narrative themselves. It is important to note that these participants conceptualize and approach fact-checking in this manner, regardless of whether or not it is actually fact-checking.

Skeptical/Anti-Mainstream and Original Source

Although two separate and distinct approaches, due to the similarity of their research implications, both the Skeptical/Anti-Mainstream approach and Original Source approach will be discussed here. Echoing some of the definitions of fact-checking discussed above, some participants are skeptical of all fact-checking and specifically associate it with mainstream media. These participants have the "Skeptical/Anti-mainstream" approach and prefer alternative and/or fringe media sources. These participants conceptualize fact-checking as biased in and of itself, with some believing it is part of a larger conspiracy. We can see this connection between such definitions and fact-checking approaches in the following two participants:

> Participant 47 *Definition: "a way the dominant power structure manufactures consent of the prevailing narrative through a collusion of corporate and governmental collusion."*

> Participant 47 *Approach: "check what is being reported by opposing information sources and trying to eliminate spin"*

> Participant 55 *Definition: "Finding credible alternate sources for information put forward as fact."*
>
> Participant 55 *Approach: "Google, see if any credible sources come up. If not, are there multiple sources that aren't so terrible. If I'm skeptical of a news piece, are there live feeds or transcripts. Always look to see what media with different political views are reporting. Are things being reported in one and not the other, or is there a contradiction. Then try to find a credible non-journalistic source where possible. Might fact check using a fact check site if something seems like a conspiracy theory or urban myth. Don't find them ideologically neutral generally. If an unfamiliar paper, will look to see where they lie ideologically if it's not immediately apparent."*

Participant 47 explicitly articulates a belief in an overarching collusion, of which fact-checking is a part of. While they discuss looking at various sources, their skepticism of fact-checking and use of the word "spin", differentiates this approach from Different Perspectives. Participant 55, while mentioning fact-checking websites, notes that they are not "ideologically neutral" and is therefore skeptical of them. Also interesting is Participant 55's skepticism of journalism, looking for "a credible non-journalistic source", as well as assuming that they can determine where a newspaper lies "ideologically". They do not specify how a newspaper's ideology reveals itself "immediately", nor are they aware of how their own biases, perceptions, and worldview affect how they would arrive at such a determination. These participants who are anti-mainstream media lie in stark contrast to the group of participants who fact-check through legacy media, peer-reviewed research, and subject matter experts (SMEs).

Research and Ask SMEs:
Professional Sources & Research (Government, Health Boards, etc.)

As with the Skeptical/Anti-mainstream approach and original source approach analysis, both Research and ask SME and professional sources and research will be discussed together due to their commonalities. While the anti-mainstream approach participants believe that legacy media and journalists are ideologically motivated and biased, and thus are skeptical of them, the Research and Ask SMEs participants are the polar opposite. These participants engage in cross-referencing and mostly trust legacy media (CBC, NPR, BBC); however, they will proceed to follow-up on the information by contacting SMEs they know, specifically journalists, medical professionals, and academics within the specific field. These SME's were referred to by the participants as "expert friends". What differentiates this approach from purely "Google and cross-referencing" is that at least one of the sources is an actual SME, as opposed to cross -referencing using the first few pages of Google.

Participants engaging with a professional sources and research approach trusted mostly professional sources such as the Harvard Business Review, PubMed, CDC, WHO, Government websites, medical websites, veterinary professional portals, the On Canada Project website,

published research papers, public health websites, and peer reviewed journals. Political debates, as well as specifically mentioning Dr. Bushra Naeem as go to sources. One interesting aspect was the acknowledgment of their own biases specifically in regard to the political field, "where fact-checking becomes more difficult for me because I have very strong political beliefs that admittedly come with biases". Furthermore, there is a need for these participants to also search the internet for reasons why the information might be inaccurate, which is not present in the other approaches.

For both approaches, these participants value the opinion and knowledge of experts, and they also acknowledge their own limitations and knowledge. There is a lack of information on how these participants define experts, however based on their choices of trustworthy sources, they rely on doctors and medical professionals, journalists, and "known experts reputed in their respective fields". It also seems that these participants see expert opinions as non-biased, compared to the Skeptic or Google approach. Although not explicitly mentioned, it is implied that the best way to eliminate bias, is to go to professional sources, and original research.

Other Approaches and Hybrid

There were also several approaches that were outliers, however presented interesting and novel ways to engage in fact-checking. These outlying approaches have a clear method, however, are vastly different from the other ones previously discussed. For example, one participant expressed a systematic approach and was the only participant who listed a detailed step by step account of how they fact-check. Another participant's approach included "talking to different people" and that differs from "ask SMEs" because they are speaking with people "like themselves". And yet another participant was the only one to express the importance of ongoing fact-checking given how some breaking news unfold over a period of time.

Additionally, the existence of some hybrid approaches indicate that these approaches are not mutually exclusive. Thirteen participants described fact-checking methods that were a combination of mainly Google and cross-referencing, different perspectives, or credibility of source, plus one or more other methods. Overall, the survey results indicate that Canadian participants fact-check with specific approaches and do so frequently. Moreover, their approaches to fact-checking accurately reflect their self-defined conceptions of fact-checking.

Discussion

While some past research encourages a focus on accuracy and fact-checking as possible solutions to the spread of misinformation (Babaei et al, 2021; Pennycook et al, 2020), the findings from this mixed-methods study reveal a deeper and more nuanced issue. Canadian participants in this exploratory study do understand accuracy, fact-checking, and misinformation. Rather, given that the conceptualizations of "truth" and "fact" are so intricately tied to personal beliefs (Walter et al, 2020), participants 'approaches to fact-checking mirrored their worldviews. Specifically, participants who indicated a strong skepticism of legacy media, as well as defined fact-checking and misinformation as being biased, approached fact-checking in congruence with these beliefs. In contrast, participants who were most trustful of legacy media and provided

accurate definitions of fact-checking and misinformation were most preoccupied with interrogating the credibility of a source, in line with their personal beliefs. Somewhere in the middle of the trust spectrum lie participants who were most interested in approaching fact-checking through accessing different perspectives. These participants tended to be more open-minded - neither trusting solely legacy media or alternative sources, but a mix of both, as well as "lived experiences". However, since each approach mirrors a participant's personal belief, they are likely to succumb to confirmation bias, exacerbating echo chambers, especially those who flock to Google's first page to fact-check.

The Dilemma of Google's First Page

Despite many participants indicating a preoccupation with a source's bias and reliability, they seem unaware of the danger of Google's "first page" (Lewandowski, 2017). It has been widely documented that Google's first page algorithm is influenced by two things a.) the user's prior search history, and b.) paid search engine optimisation (SEO) advertisements, both of which are related to one another (Gillespie, 2014; Lewandowski, 2017; Noble, 2018). Specifically, whatever paid advertisements a user sees are related to their prior search history (Cahn et al, 2016; Gillespie, 2014). As such, if participants are looking to verify information using the first page of Google, they are more likely to end up confirming their prior beliefs as Google will show them results based their usual Internet browsing habits, such as Google search history, other websites frequented, social media interactions, and more (Gillespie, 2014; Lewandowski, 2017).

For the group that fact-checks using Google, they are likely to exacerbate the echo chamber problem. However, because these people believe they are fact-checking, and *are* engaging in some form of fact-checking, publicly correcting, or denigrating such a method is unlikely to change their approach, and, consistent with prior research on public corrections (Margolin et al, 2017; Mosleh et al, 2021), may cause people to be even more steadfast in their beliefs and approaches (Garrett et al, 2013; Margolin et al, 2017). Instead of focusing efforts on teaching general fact-checking steps, people who subscribe to this method of fact-checking could benefit from being educated on Google results and how to find more diverse but reliable results, similar to the different perspectives approach. Simply put, we suggest starting with a citizen's beliefs and approach to fact-checking, and gently suggesting adjustments to their existing method to avoid backfire. Future research should also explore what sources people consider reliable, and why.

Legacy Media: To Trust or Not to Trust?

The two approaches that lie on polar opposites are the Skeptical/Anti-Mainstream approach participants versus the Credibility of Source participants. Participants in the anti-mainstream approach discussed attempting to "eliminate spin" and censorship, as well as strong distrust of legacy media. The concept of spin has recently taken on new connotations in the far-right, where information that only "provides only one interpretation of an event" (Baker, 1994) is considered propaganda and "spin" (O'Connor & Weatherall, 2019).

For them, fact-checking is pointless and futile, because fact-checking itself is "an opinion tailored to the narrative that is funding fact checkers" (P171). Overall, they express a mistrust of government and mainstream media, and this is reflected in the types of sources they consider the most trustworthy, with some explicitly stating that they will search for any sources that are "not legacy media" or will not be satisfied unless they "do their own research" or "see it with my own eyes". For these individuals, fact-checking is political, and they see it as part of the mainstream narrative. These results are consistent with research on fact-checking and ideology. Specifically, conservatives and individuals who are distrustful of legacy media are more prone to believing that an unaffiliated, objective, third-party fact-checking organization as ideologically motivated, despite a lack of evidence of bias (Shin & Thorson, 2017; Stencel, 2015; Walter et al, 2020).

Although only seven participants fell into the "skeptical/anti-mainstream" approach, and an additional three from the "original source" approach, they should not be dismissed as minorities or outliers. These participants expressed feeling marginalized, censored, and disenfranchised by the mainstream due to their beliefs. As such, while these seven participants felt comfortable enough to share these views in our survey, as discussed in our methodology, there are likely more that did not feel comfortable participating and/or sharing due to the belief that their views are marginalized, and some may have felt that the survey itself may be biased just by being about fact-checking. Some of these participants expressed views that are explicitly conspiratorial and hateful, citing "trustworthy" sources like David Icke – an author of anti-Semitic conspiracy books. As many conspiracy theory researchers have been warning (Argentino & Amarasingam, 2021; Van Raemdonck, 2019), it is vital that as communications and education researchers, we address the connection between misinformation and echo chambers as gateways to conspiracy theories. Although QAnon is an American-rooted conspiracy theory, it has taken a strong foothold in Canada (Argentino & Amarasingam, 2021), and we must determine the best moments and methods for intercepting such ideologies before they become entrenched worldviews.

In contrast to participants who were anti-mainstream narratives and had a skeptical approach to fact-checking, those who were interested in discovering the credibility of the source of a piece of information tended to value legacy media sources the most. This group of participants indicates that some people still value and consider legacy media to be trustworthy source of information, consistent with current research (Ismail et al, 2019; Langer & Gruber, 2021). In fact, for these participants, Canadian legacy media sources such as CBC, The Globe and Mail, and the Montreal Gazette, are where they turn to fact-check questionable information they come across. Thus, while there is a growing minority of individuals who are distrustful of legacy media, the majority of our Canadian participants see legacy media as credible and trustworthy, turning to these sources to fact-check misinformation.

Different Perspectives

Perhaps the most idiosyncratic of approaches is that of Different Perspectives. For these individuals, legacy media is not always the defacto truth, as is with those whose approach is Credibility of Source. These participants were concerned with bias from "both sides" and were actually interested in reading sources or listening to people whose views may not align with their

own. However, a question for further research remains – does reading these different perspectives actually change people's minds on what is considered fact, or does reading the opposite perspective only further entrench a person's existing beliefs? (Kappes et al, 2020; Mosleh et al, 2021). Either answer has large implications for combating misinformation and echo chambers. As recent research on this topic is yet to come to a consensus, future research should investigate the effectiveness of a "different perspectives" approach to fact-checking, especially with individuals who actively seek it out, such as this group of Canadian participants.

Limitations

The current study drew from data provided by 99 participants. Although we sought to collect responses from as diverse a population as possible, the participant pool lacked demographic diversity. Participants primarily lacked racial and gender diversity. Furthermore, although this is a Canadian study, the majority of our participants resided in Ontario and Quebec, however this is representative of the current population percentage in Canada.

Furthermore, limitations using a survey instrument is also important to mention. Respondents often feel rushed to complete the survey or discouraged or challenged when open-ended questions are included. Respondents may not feel encouraged to provide accurate and honest answers. Dishonest answers, unanswered questions, differences in understanding certain questions, and the lack of emotional responses or feelings. Furthermore, depth is also a major limitation with surveys that include open-ended questions. However, a survey such as this is the best way to reach a national audience quickly.

Suggestions for Future Research

Based on the limitations of the study, there are several suggestions for future research. The first logical suggestion for future research would be to collect structured or semi-structured interviews asking some of the key open-ended questions included in the survey, as well as others which could encourage follow-up questions to dive deeper into the responses and information, such as what sources people consider reliable, and why.

Furthermore, a future study could ask participants to fact check a media source to verify if it aligns with their proposed approach. Witnessing firsthand, how the participant engages in fact-checking when a source is provided, and the process is being documented and observed.

Lastly, another future study could also examine the connections between world and political views and the various fact-checking approaches proposed in this study. As well, it would be interesting to explore how these existing fact-checking approaches could be leveraged in efforts to combat misinformation.

References

Argentino, M. A., & Amarasingam, A. (2021). They Got It All under Control: QAnon, Conspiracy Theories, and the New Threats to Canadian National Security. In L. West, T. Juneau, & A. Amarasingam (Eds.), *Stress Tested*, (pp.15-32). University of Calgary Press.

M. Babaei, J. Kulshrestha, A. Chakraborty, E. M. Redmiles, M. Cha and K. P. Gummadi, "Analyzing Biases in Perception of Truth in News Stories and Their Implications for Fact Checking," in *IEEE Transactions on Computational Social Systems*, 9(3), pp. 839-850, June 2022, doi: 10.1109/TCSS.2021.3096038.

Baker, B. (1994). *How to identify, expose, and correct liberal media bias*. Media Research Center.

Bogost, I. (2018, May 3). Why 'Stories' Took Over Your Smartphone. *The Atlantic*. Available online at: https://www.theatlantic.com/technology/archive/2018/05/smartphone-stories-snapchat-instagram-facebook/559517/

boyd, d. (2017). Did media literacy backfire? *Journal of Applied Youth Studies*, *1(4)*, pp. 83-89.

Brashier, N. M., Pennycook, G., Berinsky, A. J., & Rand, D. G. (2021). Timing matters when correcting fake news. *Proceedings of the National Academy of Sciences of the United States of America*, *118*(5), https://doi.org/10.1073/pnas.2020043118

Brandtzaeg, P. B., Følstad, A., & Chaparro Domínguez, M. Á. (2018). How journalists and social media users perceive online fact-checking and verification services. *Journalism practice, 12*(9), pp. 1109-1129.

Braun, V., & Clarke, V. (2012). Thematic Analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.), APA Handbook of Research Methods in Psychology, Vol. 2: Research Designs: Quantitative, Qualitative, Neuropsychological, and Biological (pp. 57-71). Washington DC: American Psychological Association.

Brisola, A. C., & Doyle, A. (2019). Critical information literacy as a path to resist “fake news”: Understanding disinformation as the root problem. *Open Information Science*, *3*(1), pp. 274-286.

Byrne, D. (2022). A worked example of Braun and Clarke’s approach to reflexive thematic analysis. Quality & Quantity, *56,* pp. 1391-1412.

Bulger, M., & Davison, P. (2018). The promises, challenges, and futures of media literacy. *Journal of Media Literacy Education, 10(1)*, pp. 1-21.

Bulger, M. (2012). Measuring media literacy in a national context: Challenges of definition, method and implementation. *Media Studies, 3 (6)*, pp. 83-104.

Calvillo, D. P., & Smelter, T. J. (2020). An initial accuracy focus reduces the effect of prior exposure on perceived accuracy of news headlines. *Cognitive research: principles and implications*, *5*(1), 55.

Carrion, M. L. (2018). “You need to do your research”: Vaccines, contestable science, and maternal epistemology. *Public Understanding of Science, 27*(3), pp. 310-324.

Cheung, M., Leung, W., Aw, E., Koay, K., (2022). "I follow what you post": The role of social media influencers' content characteristics in consumers 'online brand-related activities (COBRAs), Journal of Retailing and Consumer Services, 66, available online at; https://doi.org/10.1016/j.jretconser.2022.102940

Clayton, K., Blair, S., Busam, J. A., Forstner, S., Glance, J., Green, G., ... & Nyhan, B. (2020). Real solutions for fake news? Measuring the effectiveness of general warnings and fact-check tags in reducing belief in false stories on social media. *Political Behavior*, *42*(4), pp. 1073-1095.

Creswell, J. & Miller, D. (2000) Determining Validity in Qualitative Inquiry, *Theory Into Practice,* 39(3), pp. 124-130.

Dennis, E. E. (2004). Out of Sight and Out of Mind: The Media Literacy Needs of Grown-Ups. *American Behavioral Scientist,* 48(2), pp. 202–211.

Garrett, R. K., Nisbet, E. C., & Lynch, E. K. (2013). Undermining the corrective effects of media-based political fact checking? The role of contextual cues and naïve theory. *Journal of Communication*, *63*(4), pp. 617-637.

Gaultney, I. B., Sherron, T., & Boden, C. (2022). Political polarization, misinformation, and media literacy. *Journal of Media Literacy Education*, *14*(1), pp. 59-81.

Gelfert, A. (2018). Fake news: A definition. *Informal logic*, *38*(1), pp. 84-117.

Gillespie, T. (2014). The relevance of algorithms. *Media technologies: Essays on communication, materiality, and society*, *167*(2014), 167.

Graves, Lucas. (2016). *Deciding What's True: The Rise of Political Fact-Checking in American Journalism*. New York: Columbia University Press.

Guess, A. M., & Lyons, B. A. (2020). Misinformation, disinformation, and online propaganda. In N. Persily & J.A. Tucker (Eds.), *Social media and democracy: The state of the field, prospects for reform*, pp. 10-33. Cambridge University Press.

Hameleers, M., & Van der Meer, T. G. (2020). Misinformation and polarization in a high-choice media environment: How effective are political fact-checkers? *Communication Research, 47*(2), pp. 227-250.

Ismail, A., Torosyan, G., & Tully, M. (2019). Social media, legacy media and gatekeeping: the protest paradigm in news of Ferguson and Charlottesville. *The Communication Review, 22*(3), pp. 169-195.

Kappes, A., Harvey, A. H., Lohrenz, T., Montague, P. R., & Sharot, T. (2020). Confirmation bias in the utilization of others 'opinion strength. *Nature neuroscience, 23*(1), pp. 130-137.

Karlova, N. A., & Fisher, K. E. (2013). A social diffusion model of misinformation and disinformation for understanding human information behaviour. *Information Research 18*(1).

Krämer, B. (2018). How Journalism Responds to Right-Wing Populist Criticism. In: Otto, K., Köhler, A. (eds) *Trust in Media and Journalism*. Springer VS, Wiesbaden.

Krause, N. M., Freiling, I., Beets, B., & Brossard, D. (2020). Fact-checking as risk communication: the multi-layered risk of misinformation in times of COVID-19. *Journal of Risk Research*, *23*(7-8), pp. 1052-1059.

Langer, A. I., & Gruber, J. B. (2021). Political agenda setting in the hybrid media system: Why legacy media still matter a great deal. *The International Journal of Press/Politics, 26*(2), pp. 313-340.

Lee, N. M. (2021). Fake news, phishing, and fraud: a call for research on digital media literacy education beyond the classroom. In *Communication in Instruction* (pp. 52-58). London: Routledge.

Lewandowski, D. (2017). Is Google responsible for providing fair and unbiased results?. In L. Floridi & M. Taddeo (Eds.), *The responsibilities of online service providers* (pp. 61-77). Springer, Cham.

Lincoln, Y., & Guba, E. G. (1985). Naturalistic inquiry. Newbury Park, CA: Sage.

Margolin, D. B., Hannak, A., & Weber, I. (2018). Political fact-checking on Twitter: When do corrections have an effect?. *Political Communication*, *35*(2), pp. 196-219.

McVicker, S. (2021, April 14). Dr. Jeff share talks about the urgency for critical media literacy in a rapidly evolving media landscape. *The PropWatch Project*. https://www.propwatch.org/article.php?id=284

Mertler, C. (2018). *Introduction to Educational Research*. London: Sage Publishing.

Mihailidis, P., & Viotty, S. (2017). Spreadable Spectacle in Digital Culture: Civic Expression, Fake News, and the Role of Media Literacies in "Post-Fact" Society. *American Behavioral Scientist, 61(4)*, pp. 441–454.

Mosleh, M., Martel, C., Eckles, D., & Rand, D. (2021, May). Perverse downstream consequences of debunking: Being corrected by another user for posting false political news increases subsequent sharing of low quality, partisan, and toxic content in a Twitter field experiment. In *proceedings of the 2021 CHI Conference on Human Factors in Computing Systems* (pp. 1-13).

Noble, S. U. (2018). Algorithms of oppression. In *Algorithms of Oppression*. New York University Press.

O'Connor, C., & Weatherall, J. O. (2019). *The Misinformation Age: How False Beliefs Spread*. Yale University Press. https://doi.org/10.2307/j.ctv8jp0hk

Oeldorf-Hirsch, A., Schmierbach, M., Appelman, A., & Boyle, M. P. (2020). The ineffectiveness of fact-checking labels on news memes and articles. *Mass Communication and Society, 23*(5), pp. 682-704.

Pennycook, G., McPhetres, J., Zhang, Y., Lu, J. G., & Rand, D. G. (2020). Fighting COVID-19 misinformation on social media: Experimental evidence for a scalable accuracy-nudge intervention. *Psychological science, 31*(7), pp. 770-780.

Quandt, T., Frischlich, L., Boberg, S., & Schatto-Eckrodt, T. (2019). Fake news. *The international encyclopedia of journalism studies*, pp. 1-6.

Rasi, P., Vuojärvi, H., & Ruokamo, H. (2019). Media literacy education for all ages. *Journal of Media Literacy Education*, *11*(2), pp. 1-19.

Rasi, P., Vuojärvi, H., & Rivinen, S. (2021). Promoting media literacy among older people: A systematic review. *Adult Education Quarterly*, *71*(1), pp. 37-54.

Ribeiro, M., Zannettou, S., Goga, O., Benvenuto, F., West, R., (2022). Can online attention signals help fact-checkers fact-check?. ICWSM.

Scheufele, D. A., & Krause, N. M. (2019). Science audiences, misinformation, and fake news. *Proceedings of the National Academy of Sciences*, *116*(16), pp. 7662-7669.

Shin, J., & Thorson, K. (2017). Partisan selective sharing: The biased diffusion of fact-checking messages on social media. *Journal of Communication, 67*(2), pp. 233-255.

Stencel, M. (2015). 'Fact Check This': How U.S. politics adapts to media scrutiny. American Press Institute. https://www.americanpressinstitute.org/fact-checking-project/fact-checking-research/u-s-politics-adapts-media-scrutiny/single-page/

Su, M. H., Liu, J., & McLeod, D. M. (2019). Pathways to news sharing: Issue frame perceptions and the likelihood of sharing. *Computers in Human Behavior, 91*, pp. 201-210.

T. Panter, D. Rindskopf, & K. J. Sher (Eds.), *APA handbook of research methods in psychology, Vol. 2. Research designs: Quantitative, qualitative, neuropsychological, and biological* (pp. 57–71). American Psychological Association. https://doi.org/10.1037/13620-004

Torres, R., Gerhart, N., & Negahban, A. (2018). Epistemology in the era of fake news: An exploration of information verification behaviors among social networking site users. *ACM SIGMIS Database: The DATABASE for Advances in Information Systems, 49*(3), pp. 78-97.

Van Raemdonck, N. (2019). The echo chamber of anti-vaccination conspiracies: Mechanisms of radicalization on Facebook and Reddit. *Institute for Policy, Advocacy and Governance (IPAG) Knowledge Series*.

Walter, N., Cohen, J., Holbert, R. L., & Morag, Y. (2020). Fact-checking: A meta-analysis of what works and for whom. *Political Communication*, *37*(3), pp. 350-375.

Wardle, C. & Derakhshan, H. (2018). Module 2: Thinking about 'information disorder': formats of misinformation, disinformation, and mal-information. In C. Ireton & J. Posetti (Eds.) *Journalism, 'Fake News' and Disinformation: A Handbook for Journalism Education and Training* (pp.43-54). UNESCO.

Whiting, A., & Williams, D. (2013). Why people use social media: a uses and gratifications approach. *Qualitative market research: an international journal 16*(4), pp. 362-369.

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