Article

Falling for Russian Propaganda: Understanding the Factors that Contribute to Belief in Pro-Kremlin Disinformation on Social Media

Felipe Bonow Soares[1] (iD), Anatoliy Gruzd[2] (iD), and Philip Mai[2]

Abstract
As Russia launched its full-scale invasion of Ukraine in February 2022, social media was rife with pro-Kremlin disinformation. To effectively tackle the issue of state-sponsored disinformation campaigns, this study examines the underlying reasons why some individuals are susceptible to false claims and explores ways to reduce their susceptibility. It uses linear regression analysis on data from a national survey of 1,500 adults (18+) to examine the factors that predict belief in pro-Kremlin disinformation narratives regarding the Russia–Ukraine war. Our research finds that belief in Pro-Kremlin disinformation is politically motivated and linked to users who: (1) hold conservative views, (2) trust partisan media, and (3) frequently share political opinions on social media. Our findings also show that exposure to disinformation is positively associated with belief in disinformation. Conversely, trust in mainstream media is negatively associated with belief in disinformation, offering a potential way to mitigate its impact.

Keywords
disinformation, Russia–Ukraine war, Russian propaganda, social media, trust in media

Introduction

As an increasing number of people turn to social media for news (Forman-Katz & Matsa, 2022; Gil de Zúñiga et al., 2012), it has become a breeding ground for misinformation and a key vector for disseminating it. Today, it is difficult to find a topic on social media that is not tainted by some form of falsehood, from discussions on politics (Grinberg et al., 2019; Guess et al., 2019; Recuero, Soares, & Gruzd, 2020) to health-related issues (Calvillo et al., 2020; Lee et al., 2020; Rossini & Kalogeropoulos, 2021). Misinformation, left unchecked, can harm transparent and open public debate by influencing people's opinions, eroding citizens' capacity to engage in meaningful discussion, and hindering people's recognition of real threats (Chadwick & Vaccari, 2019; Flynn et al., 2017). For example, misinformation is a major challenge during global crises such as the COVID-19 pandemic; research has shown that individuals who believed in COVID-19 misinformation were more likely to downplay the severity of the pandemic (Calvillo et al., 2020; Jamieson & Albarracin, 2020). Moreover, belief in COVID-19 misinformation resulted in inferior preventive behavior

(Lee et al., 2020), undermining global efforts to contain the spread of the virus (Stecula & Pickup, 2021b).

While much of recent work on misinformation has focused on studying COVID-19 misinformation, Russia's full-scale invasion of Ukraine on February 24, 2022, has also brought forth a wellspring of misinformation (Gruzd & Mai, 2022; Milmo, 2022). War-related misinformation presents unique challenges as it is oftentimes fueled by state actors and their supporters as part of a coordinated hybrid warfare tactic designed to achieve some larger strategic objectives. This type of misinformation is referred to as disinformation because its dissemination is intentional. Disinformation could take different forms, including factually inaccurate, distorted

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[1]University of the Arts London, UK
[2]Toronto Metropolitan University, Canada

Corresponding Author:
Felipe Bonow Soares, London College of Communication, University of the Arts London, Elephant and Castle, London SE1 6SB, UK.
Email: f.soares@lcc.arts.ac.uk

or out-of-context information presented as a fact intending to deceive (Benkler et al., 2018; Freelon & Wells, 2020).

The Kremlin has a long history of engaging in disinformation as a tool of war. Recent examples of their use of disinformation to further their war objectives include their 2008 incursion into Georgia and the 2014 annexation of Crimea (Paul & Matthews, 2016). The Kremlin's propaganda machine deploys several strategies to influence and manipulate the public debate, both in Russia and other countries (Paul & Matthews, 2016). These strategies include the control of state-sponsored media such as Russia Today (Fisher, 2020), armies of bots, trolls, and sockpuppet accounts (Badawy et al., 2019), and the spread of disinformation (Grossman et al., 2022). For example, the Kremlin has used disinformation to influence political issues and sought discordance in other countries, notably during the 2016 United States presidential election (Badawy et al., 2019). Beyond creating online disagreements, the Kremlin's disinformation campaigns fueled physical conflicts between opposing political groups in the United States (Riedl et al., 2022).

To effectively tackle the issue of state-sponsored disinformation campaigns, it is essential to understand the underlying reasons why some members of the public are susceptible to pro-Kremlin disinformation and find ways to reduce their susceptibility. To this end, we analyzed several characteristics of social media users in Canada to determine their possible link to belief in common false claims made by the Kremlin about Ukraine and NATO. These characteristics include (1) exposure to disinformation, (2) political ideology, (3) trust in media, (4) trust in different governments, and (5) social media use practices. As outlined in the following section, previous research has identified these characteristics as key factors associated with misinformation beliefs in various contexts such as politics (Valenzuela et al., 2019; Young et al., 2022) and the COVID-19 pandemic (Calvillo et al., 2020; Jamieson & Albarracin, 2020; Rossini & Kalogeropoulos, 2021; Stecula & Pickup, 2021b; Theocharis et al., 2023). However, their connection to the acceptance of pro-Kremlin disinformation remains unexplored.

As governments worldwide grapple with protecting their citizens from foreign interference, this case study provides insights into how various factors (including political views, news media consumption, and trust in government) can shape one's belief regarding disinformation from foreign entities active on social media. In addition, the study provides potential strategies for building resilience against pro-Kremlin disinformation campaigns.

Background

This section outlines common factors associated with one's beliefs in misinformation on different topics. Since other studies use different terminology to describe their dependent variable, we will use the general term of misinformation in this section when referring to false and

misleading information shared on social media, with or without the intention of deceit.

Exposure to Misinformation

The first factor we will consider is exposure to misinformation. Tsfati et al. (2020) suggest that mainstream media, despite fact-checking false claims, contribute to misinformation by reproducing it. This is because while false and misleading claims tend to be limited to specific political groups, when mainstream media outlets report on them, a wider audience is exposed to them. Consequently, more people may start believing these claims due to a well-documented phenomenon known as the illusory truth effect. This effect occurs when people perceive repeated information as more truthful than new information, whether credible or not (Hassan & Barber, 2021). To illustrate this phenomenon, Pennycook et al. (2018) conducted an experiment to examine whether exposure to misinformation increases its perceived accuracy. Participants were presented with both true and false claims as Facebook posts and were subsequently asked to rate the accuracy of these and other claims. The results revealed the illusory truth effect for false and true claims, as prior exposure increased accuracy ratings for both. Similarly, Lee et al. (2020) tested the association between prior exposure to 12 common COVID-19 false claims identified by the World Health Organization and belief in them. Their result showed that prior exposure to COVID-19 misinformation was associated with belief in these false claims.

Interestingly, not everyone is convinced that exposure to COVID-19 misinformation leads to belief in it. Altay et al. (2022) found that while news consumption did increase people's awareness of COVID-19 misinformation, likely due to mainstream media's frequent reporting, it did not increase their acceptance of COVID-19 misinformation. This somewhat contradictory finding calls for further examination of this factor.

Political Ideology

Another key factor related to the belief in misinformation is political ideology. Recent studies have shown that conservatism and right-wing ideologies are positively associated with believing in misinformation. For example, Rossini and Kalogeropoulos (2021) used a survey to ask respondents if they believed in ten false statements about the COVID-19 pandemic. They found that individuals on the right of the political spectrum were more likely to believe in misinformation. Similarly, Calvillo et al. (2020) conducted a study to examine the susceptibility of individuals who believe in COVID-19 misinformation. The participants were asked to rate false and true headlines. The study found that those who held conservative views were less accurate in recognizing false headlines and were more likely to believe in false claims. In a survey conducted by Young et al. (2022),

participants from the United States were asked about their political ideology, party affiliation, and belief in false claims about COVID-19 and the 2020 US election. The study found that belief in false claims was positively associated with both conservatism and support for the Republican Party.

Trust in Media

Previous research has shown that individuals with lower trust in mainstream media are more likely to believe in misinformation. In a study by Valenzuela et al. (2022), survey participants rated the credibility of various false claims regarding public affairs, crime, science, and natural disasters. They were also asked to assess their level of trust in mainstream media. The results indicated that when people trust mainstream media more, they are less likely to perceive misinformation as credible. In a separate study, Ognyanova et al. (2020) analyzed both survey data and users' browsing history and found that those who consumed misinformation exhibited less trust in the media. Hutchens et al. (2021) conducted a survey in which participants rated their belief in political misinformation and their level of trust in different partisan media. The study found a positive association between trust in partisan media outlets and the belief in misinformation, especially when the false claims aligned with the participants' political views.

Trust in Governments

Since our research focuses on a state-sponsored disinformation campaign during the Russia–Ukraine war, we find it important to investigate how trust in different governments may be linked to the acceptance of misinformation, in addition to examining trust in various media outlets. Previous research has established a correlation between trust in government and the acceptance of various forms of misinformation. However, the nature of this relationship varies depending on the country. For example, Humprecht (2023) found that citizens in the United States and United Kingdom who trusted their respective governments were more likely to spread misinformation on topics such as COVID-19, immigration, and climate change. Conversely, people in France and Belgium who trusted opposition leaders were more susceptible to misinformation. Thus, trust in the government can have different outcomes depending on who is in power. The study attributes these country-specific results to leadership's role and ability to benefit from their citizens' trust.

In another study that focused on political misinformation about elections, Rossini et al. (2023) found that trust in the government in Brazil was linked to the acceptance of misinformation during the reign of Bolsonaro's administration, which is known for disseminating false claims about the Brazilian electoral system (Recuero, Soares, & Vinhas, 2020). This finding highlights the fact that the "trust in government" factor is closely tied to who is in power during the survey period.

Social Media Engagement

Misinformation is often linked to the use of social media (Righetti, 2021; Wang et al., 2019). Prior research found that the extent and frequency of social media use are positively associated with belief in misinformation. For example, Enders et al. (2023) found that those who use social media frequently are more likely to believe in conspiracy theories (a common source of misinformation).

Research has also shown that using social media specifically for (1) news consumption and (2) political engagement can increase the likelihood of believing or sharing misinformation. For example, Jamieson and Albarracin (2020) identified a positive relationship between using social media for news and the tendency to believe in misinformation. Similarly, Enders et al. (2023) surveyed participants on their belief in conspiracy theories and found that those who relied on social media as their news source were more likely to believe in conspiracy theories. In addition, in the context of political engagement, Valenzuela et al. (2019) discovered that using social media for political participation was positively associated with sharing misinformation.

Method

Data Collection

The data was collected via the online survey platform Qualtrics from respondents who were recruited with the help of Dynata, a market research company, from May 12 to May 31, 2022. Approval from the university Research Ethics Board was obtained prior to data collection. After cleaning the data, 1,500 valid responses were included in the study. The data used in this study is available at https://doi.org/10.6084/m9.figshare.20277855.

To ensure representativeness, we used proportional quota sampling, setting quotas based on age, gender, and geographical region to align with the distributions of the 2021 Statistics Canada population estimates. Table 1 provides a breakdown of the participants included in the study.

Variables and Measurement

In the previous section, we used the term "misinformation" as an umbrella term to examine previous literature. However, for the rest of the article, we will employ the term "disinformation" because our study focuses on beliefs in false and misleading claims disseminated by the Kremlin and its supporters with the intent to deceive.

To measure belief in pro-Kremlin disinformation narratives (dependent variable), we identified seven prevalent claims about Russia's invasion of Ukraine and NATO which have been promoted by the Kremlin and its supporters. These were false and misleading claims verified by independent fact-checkers and selected based on our comprehensive

Table 1. Census-Balanced Sampling by Gender, Age, and Region.

Canada	2021 (%)
Gender	
Female	51.24
Male	48.76
Age	
18–24	10.09
25–34	16.60
35–44	16.50
45–54	15.70
55+	41.12
Region	
Western (Alberta, British Columbia, Manitoba, and Saskatchewan)	31.47
Atlantic (New Brunswick, Newfoundland and Labrador, Nova Scotia, and Prince Edward Island)	6.73
Ontario	38.72
Quebec	23.08

review of relevant sources, including: Gigitashvili and Osadchuk (2022), Grossman et al. (2022), McCarthy (2022), Milmo (2022) and Neal (2022). The claims cover long-standing pro-Kremlin narratives, including assertions that Russia invaded Ukraine to aid Russian-speaking Ukrainians (who were supposedly being oppressed by the Ukrainian government) and to "denazify" Ukraine, or that NATO's expansion provoked Russia's invasion, or that Ukraine is the aggressor. The dependent variable was measured using a five-point Likert-type scale, allowing participants to indicate their level of belief in the seven disinformation claims, ranging from "Not at all" to "Great deal."

The following is an overview of the independent variables that have been shown to predict belief in disinformation based on prior research.

To measure exposure to pro-Kremlin disinformation, we used the same set of seven claims about the war as used for the dependent variable. Participants were asked if they came across these claims while using social media (yes or no question). This factor was included based on previous research that showed a positive association between exposure to misinformation and the belief in it (Lee et al., 2020; Pennycook et al., 2018).

To measure political ideology, we adapted Pew's Ideological Consistency Scale (Dimock et al., 2014) to the Canadian context. This scale is based on ten pairs of political value statements, each containing one liberal-leaning (scoring 0) and one conservative-leaning statement (scoring 1). Participants were asked to choose between the two statements, and the sum of their choices determined their political ideology, with a score range of 0 (mostly liberal) to 10 (mostly conservative). Previous studies have found that right-leaning ideologies are positively linked to belief in misinformation (Calvillo et al., 2020; Rossini & Kalogeropoulos, 2021; Young et al., 2022).

To measure the participants' level of trust in mainstream and partisan media, as well as different governments (Canada, the United States, Ukraine, and Russia), we used a five-point Likert-type scale (from "Not at all" to "Great deal"). In the survey, participants were provided with the following definitions: mainstream media refers to mass media organizations that report news aligning with widely held views, while partisan media refers to outlets operated by individuals or groups who strongly advocate for a specific political party, cause, or person. Previous studies have shown that trust in mainstream media is inversely related to belief in misinformation (Ognyanova et al., 2020; Valenzuela et al., 2022), while trust in partisan media is positively associated with it (Hutchens et al., 2021). We also included the variable "trust in various governments" as we investigated the impact of a state-sponsored disinformation campaign in the context of the Russia–Ukraine war.

To measure the preferred source of news about the war, we used a five-point Likert-type scale (ranging from "Do not prefer" to "Prefer a great deal") to gauge the extent to which participants preferred to receive information from various media outlets, including TV, print, radio, news websites, and social media.

To assess social media usage in general, we asked participants to report the number of social media platforms they use from a list of 13 social media platforms and messaging apps that are popular in Canada (Mai & Gruzd, 2022). We also used a six-point Likert-type scale to measure the frequency of sharing and liking posts on social media, ranging from "Never" to "Several times a day."

To capture the level of political engagement on social media, we used a six-point Likert-type scale to assess how often participants share their political opinions on social media (ranging from "Never" to "Several times a day"). Previous research has shown a positive association between social media use and belief in misinformation (Enders et al., 2023), especially when it comes to consuming news (Jamieson & Albarracin, 2020) and participating in politics (Valenzuela et al., 2019).

Finally, our analysis included age, education, and income as control variables. Age was recorded as a continuous variable, while education and income were categorized into groups. Education was divided into eight categories ranging from "no degree" to "doctorate degree." Income was divided into seven categories, ranging from "less than $20,000" to "more than $120,000." We chose to exclude gender from our study as respondents were given the option to identify themselves as non-binary or self-identify as their preferred gender, leading to small sample sizes for certain groups. Also, when we tested a binary variable for gender (men and women) in the regression, it was found to be non-significant.

All measurement scales are available in Supplemental Appendix A. For the two composite variables, Belief in and

Table 2. Linear Regression With All Independent Variables (Main Model) for Belief in Pro-Kremlin Disinformation.

Independent variables	Standardized coefficients	Mean	SD
Exposure to disinformation	0.181***	2.02	2.442
Political ideology	0.153***	3.33	2.298
Trust partisan media	0.095***	2.07	1.048
Trust mainstream media	−0.072***	2.87	1.111
Trust in Russia	0.397***	1.71	1.064
Trust in Ukraine	−0.111***	2.82	1.126
Trust in Canada	0.017	2.92	1.116
Trust in the United States	−0.003	2.64	1.086
Prefer social media for news	0.126***	2.05	1.204
Prefer print for news	0.045	2.38	1.248
Prefer radio for news	0.044	2.41	1.241
Prefer TV for news	0.048	3.08	1.297
Prefer online for news	0.006	2.83	1.247
Frequency sharing political opinion on social media	0.127***	1.97	1.398
Number of Social Media platforms	0.016	4.71	3.072
Frequency posting on social media	0.040	2.68	1.456
Frequency liking on social media	−0.009	3.15	1.656
Age	−0.038	48.39	17.551
Education	0.049	3.93	1.532
Income	−0.005	4.05	1.925
N	1,500		
R square	0.480		
Adjusted R square	0.478		

Note. SD = standard deviation.
***p* < .001.

Exposure to pro-Kremlin disinformation, we calculated the Cronbach's alpha values for each, and the results show that they are above the recommended threshold of 0.7 (0.954 and 0.887 correspondingly), confirming the internal consistency of the measurement instrument.

Data Analysis

The data analysis was conducted using SPSS version 27. We used linear regression to answer the research question: What factors are associated with belief in pro-Kremlin disinformation about the Russia–Ukraine war? We selected the stepwise method for the regression to identify the best predictors of belief in disinformation among the studied variables.

We constructed two models to understand the role of independent variables: a baseline model consisting solely of demographic variables (Supplemental Appendix B) and a main model that incorporated the rest of the independent variables measured in the survey (Table 2). The variance inflation factor scores ranged from 1 in the baseline model to 2.6 in the main model, suggesting the absence of multicollinearity. The adjusted R-squared has shown a considerable increase from 8.0% in the baseline model to 47.8% in the main model. This suggests that the independent variables account for a greater proportion of the variance in belief in disinformation beyond demographic data. The following section discusses the results obtained from the main model.

Findings

The analysis has uncovered several significant factors associated with belief in pro-Kremlin disinformation. Based on the review of the standardized coefficients (Table 2), we can conclude that trusting the Russian government is the strongest predictor (0.397), followed by being exposed to pro-Kremlin disinformation (0.181) and having a right-leaning political ideology (0.153). Other factors that have also been found to be significantly and positively associated with belief in pro-Kremlin disinformation include the frequency of sharing political opinions on social media (0.127), dependence on social media for news about the war in Ukraine (0.126), and trust in partisan media (0.095). Finally, both trusting the Ukrainian government (−0.111) and trusting mainstream media (−0.072) have an opposite association with belief in pro-Kremlin disinformation. Next, we will review these results in relation to the five key factors as outlined in the "Background" section.

Finding 1: Exposure to Disinformation Predicts Belief in Disinformation

Exposure to disinformation is positively correlated with belief in disinformation. However, it is important to note that this correlation cannot determine causality. Some respondents may have been exposed to disinformation on social media and started believing it, while others may have actively sought out sources that aligned with pro-Kremlin's narratives to support their existing beliefs. We will expand on this finding in more detail in the "Discussions" section.

Finding 2: Conservative Political View Predicts Belief in Disinformation

Individuals with right-leaning political views are more likely to believe in pro-Kremlin disinformation. One explanation for this association could be the shared conservative values between Western far-right groups and Russian nationalists (Diesen, 2020; Michael, 2019). For example, some far-right political parties in the West, like the VOX party in Spain and the Five Star movement in Italy, use anti-LGBTQ+, anti-liberal, and anti-immigration narratives, much like Russian nationalists (Innes et al., 2021). In addition, some prominent far-right figures in the West, such as former Fox News host Tucker Carlson, use pro-Kremlin narratives to advance their own political agendas and criticize President Biden's administration (Frenkel & Thompson, 2022; Stone, 2022).

Finding 3: Social Media News Consumption and Political Engagement Predict Belief in Disinformation

The likelihood of believing in disinformation is not solely due to social media usage, as also suggested by some prior research (Enders et al., 2023). Rather, it is about how social media is used, particularly when it is associated with political engagement. This is because variables like the number of accounts and frequency of posting and liking posts on social media are not significant predictors in our model. Instead, individuals using social media for specific purposes, such as news consumption and political participation, are more prone to believing disinformation.

Finding 4: Trust in Partisan Media Predicts Belief in Disinformation, Unlike Trust in Mainstream Media

Belief in disinformation is positively related to trust in partisan media, while the opposite is true for trust in mainstream media. This is concerning given the decreasing trust in news reported by the 2022 Reuters Institute's Digital News Report (Newman et al., 2022), with trust as low as 26% in the United States and an average of 42% globally. In Canada, where this research was conducted, trust in news stands at 42%. While restoring trust in mainstream media could aid in combating disinformation, it may prove difficult given that those with low trust in news often opt for non-mainstream sources, including social media and partisan media (Fletcher & Park, 2017), both of which were linked to a firmer belief in pro-Kremlin disinformation in our study.

Finding 5: Trust in the Russian Government Predicts Belief in Disinformation, While Trust in Ukrainian Government Does Not

Here, we assessed the correlation between trust in one of the four governments directly or indirectly involved in the war (Russia, Ukraine, Canada, or the United States) and belief in pro-Kremlin disinformation. We anticipated that those who trust Ukraine or a Western government like Canada or the United States would be less susceptible to pro-Kremlin disinformation narratives, while those who trust the Russian government would have the opposite belief. We found that only trust in the Russian and Ukrainian governments showed significant associations with belief in disinformation (in the expected direction). This highlights the connection between trusting the Russian government and the likelihood of falling for state-sponsored disinformation in an information war. Meanwhile, trust in the Canadian and US governments showed no significant associations with belief in pro-Kremlin disinformation, suggesting that other factors tested in the model might be more influential than the belief in what "your" government (from the perspective of Canadian participants) or an allied government (United States) says about the war.

Discussion and Conclusions

This section reflects on how the study results can inform effective strategies to counter state-sponsored disinformation narratives by Western governments.

Our findings demonstrated that exposure to pro-Kremlin disinformation is strongly associated with the belief. However, exposure alone might not be enough for someone to start believing in disinformation (Altay et al., 2022) and is likely due to individual's selective exposure and motivated reasoning (see, e.g., Flynn et al., 2017; Osmundsen et al., 2021; Shin & Thorson, 2017). In other words, individuals in our study who reported seeing pro-Kremlin disinformation and believing in it might have actively sought such posts out, driven by their previous beliefs and politically motivated reasoning. This supposition is also supported by the fact that

the individuals who were more likely to believe in the Kremlin's disinformation tend to hold conservative political views, trust partisan media sources, and are more politically active on social media.

While a future study will need to validate this supposition, if it holds, it means that reducing the exposure of misinformation might not be an effective approach to combat it among this population. The reason that limiting exposure and providing fact-checking (Walter et al., 2020) might not be effective (at least not long-term) is because the individuals would just find other tools and means to access and share such narratives using different accounts or different social media platforms (Sanderson et al., 2021).

Thus, more proactive policies that build resilience against foreign state-sponsored disinformation campaigns may produce more effective results. One such strategy is to inoculate people against future disinformation campaigns by exposing people to false claims in controlled situations. For example, Roozenbeek and van der Linden (2019) developed a game in which participants were tasked with creating disinformation and had to learn about the different strategies used by disinformation producers. After playing the game, participants reported lower perceived reliability and persuasiveness of disinformation. While researchers may propose several implementations of such games, the effectiveness of such inoculation-type interventions would be limited unless their implementation is widely adopted at the policy and institutional levels, for example, by introducing more critical thinking and information literacy skills into school curriculum. In fact, Finland has already demonstrated how it is possible to successfully deploy educational interventions in public schools to improve information literacy (the country was placed first in the media literacy index in 2019, Lessenski, 2019) and tackle misinformation (Henley, 2020).

On the government side, we do see some attempts to inoculate the public against pro-Kremlin narratives. For example, in Canada, the federal government actively used various official social media accounts to inform the public about debunked false claims about the Russia–Ukraine war (Communications Security Establishment CSE, 2022; Government of Canada, 2023). While commendable, such efforts are likely limited in their reach and are as impactful as the level of trust that citizens have in their government (Bjola, 2018; Humprecht, 2023). Therefore, government-led inoculation-type strategies may work well in Ukraine (National Democratic Institute [NDI], 2022) or Finland (Organization for Economic Co-operation and Development [OECD], 2021), where the trust in the government relatively high, as opposed to the United States where the trust in the federal government remains low (Mitchell, 2020).

If trust in governments is low, then policies related to supporting credible independent information intermediaries may be a way to go. For example, based on one of our findings, which shows that individuals who trust mainstream media are less likely to believe in pro-Kremlin disinformation, policies designed to invest in and support a strong journalistic community and increase trust in mainstream media outlets could potentially be a helpful strategy in reducing susceptibility to disinformation among citizens. In line with our findings, Altay (2022) suggests that building trust in reliable sources may be more effective than directly countering disinformation. However, given the declining trust in news in many countries worldwide (Newman et al., 2022), restoring trust in credible news sources might be a tall order, but it might prove to be a worthwhile task in the long run.

Limitations and Future Work

As with any empirical work, our study has some limitations that will require future research in this area. The R square of our model showed that the selected factors for this study explain 47.8% of the variance of the dependent variable. While this is a relatively high value, it also suggests that there are other factors that we have not accounted for in the current model. Potential factors to be examined in future research may include epistemic beliefs (Garrett & Weeks, 2017) and populism (Stecula & Pickup, 2021a), both found to be associated with conspiracy theory beliefs, as well as news avoidance, which was shown to be associated with belief in COVID-19 disinformation (Tandoc & Kim, 2023).

We did not test the causality between exposure to disinformation and belief in it. So, we do not know whether participants changed their beliefs after being exposed to disinformation or looked for disinformation to reinforce their beliefs. Future studies can design experiments that specifically look at the causal relationship between these two variables. In particular, future studies can explore the effect of exposure to disinformation via fact-checkers and the mainstream media. This would provide more evidence to the ongoing discussion on whether the mainstream media inadvertently contributes to the increase of belief in disinformation or not (Altay et al., 2022; Tsfati et al., 2020).

ORCID iDs

Felipe Bonow Soares https://orcid.org/0000-0003-4850-9255
Anatoliy Gruzd https://orcid.org/0000-0003-2366-5163

Supplemental Material

Supplemental material for this article is available online.

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Author Biographies

Felipe Bonow Soares (Ph.D., Federal University of Rio Grande do Sul) is a Senior Lecturer in Communications and Media—Social Analytics at the University of the Arts London (UAL). His research interests include online discourse, political communication, social media, and disinformation. Email: f.soares@lcc.arts.ac.uk

Anatoliy Gruzd (Ph.D., University of Illinois at Urbana-Champaign) is a Canada Research Chair, Professor, and Director of Research at the Social Media Lab at Toronto Metropolitan University. His research explores how social media and the growing availability of user data are changing the ways in which people and organizations communicate, collaborate, and disseminate information and how these changes impact the social, economic, and political norms and structures of modern society. Email: gruzd@torontomu.ca

Philip Mai (M.A., J.D., Syracuse University) is a Co-director and a Senior Researcher of the Social Media Lab at Toronto Metropolitan University in Canada. His research interest is mainly in the areas of dis/misinformation campaigns, online toxicity, hate, conspiracy theories, and extremism. Email: philip.mai@torontomu.ca