

Special Section on Comparative Approaches to Mis/Disinformation

Introduction

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From misleading news articles around elections in Brazil and the United States to mob lynchings fueled by false social media messages in India to made-up stories about COVID-19 vaccination, a deluge of disinformation and misinformation is affecting various aspects of citizens' lives around the world. Although there is an increasing number of research papers dealing with disinformation or misinformation, a majority of these have focused on the United States. This Special Section on comparative approaches to mis/disinformation features conceptual and data-informed articles with international and global perspectives on the prevalence, impact, and diffusion of mis/disinformation in different countries. Articles selected for the Special Section provide new theoretical and empirical contributions to existing bodies of knowledge whether focusing on one country or offering comparative perspectives involving multiple countries. The articles, individually and collectively, offer important scholarly and policy implications for studying and combating mis/disinformation around the world.

Keywords: *disinformation, misinformation, comparative approach, information ecosystem, democracy*

From misleading news articles around elections in Brazil and the United States to mob lynchings fueled by false social media messages in India to made-up stories about COVID-19 vaccination, a deluge of disinformation and misinformation is affecting various aspects of citizens' lives around the world (Benkler, Faris, & Roberts, 2018; Brennen, Simon, Howard, & Nielsen, 2020; Gowen, 2018; Seo, Blomberg, Altschwager, & Vu, 2020). The situation is particularly concerning in emerging democracies, where availability and affordability of digital communication technologies have facilitated the production and distribution of false and misleading digital content among populations with lower levels of media and digital literacy (Seo et al., 2021). At the same time, we are witnessing false narratives spreading across countries

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and platforms, often orchestrated by networks of operatives coordinating attacks internationally (Beskow & Carley, 2020; Bradshaw & Howard, 2018).

Although there is an increasing number of research papers dealing with disinformation or misinformation, a majority of these have focused on the United States. Our preliminary analysis of 105 empirical articles¹ on disinformation or misinformation published in leading communication journals between January 2015 and October 2020 found that 62.8% were done using data from the United States. Specifically, 55.2% of the 105 articles published focused on the United States only, and 7.6% analyzed U.S. data along with those from other countries. A total of 37.2% of the articles used data collected from other countries—either focusing on one country (31.4%) or multiple countries (5.7%). Reflecting this U.S.-centric research agenda, North America was the most prominent region represented in those studies (64.8%), followed by Europe (14.3%), Asia and Pacific Islands (10.5%), the Middle East and North Africa (3.8%), South America (3.8%), and other (2.8%). Russia, the United Kingdom, and Germany were some of the most heavily studied countries in Europe, and Singapore and South Korea were the most frequently examined among Asian countries. Brazil was the most frequent topic of the studies focusing on South America.

In terms of methodology, computational social science methods, experiments, and surveys were the dominant approaches. Experiments accounted for 23.8% of the articles analyzed, followed by computational social science methods (18.1%), surveys (15.2%), interviews or focus groups (14.3%), human-coded content analysis or textual analysis (11.4%), and meta-analysis or secondary data analysis (9.5%). Other methods (7.7%) included image analysis, ethnography, and case study. In general, experimental and survey studies analyzed how individuals assess information online and what motivates them to share misleading content online (e.g., Enders & Smallpage, 2019; Garrett & Poulsen, 2019; Rossini, Stromer-Galley, Baptista, & Veiga de Oliveira, 2020). Articles using computational methods examined text embedded in social media posts, network relationships, and content coordination patterns (e.g., Bradshaw, Howard, Kollanyi, & Neudert, 2020; Shin, Jian, Driscoll, & Bar, 2017).

A chi-square analysis shows that there are statistically significant differences among studies focusing on different regions in terms of methodological approaches frequently used, $\chi^2(1, df = 36) = 63.79$, $p < .01$. Studies focusing on countries in North America often relied on experiments (32.4%), computational methods (19.1%), surveys (19.1%), human-coded content analysis (7.4%), and meta-analysis or secondary data analysis (7.4%). In contrast, interviews or focus groups, in particular interviews, were most widely used in journal articles focusing on Europe (26.7%), followed by experiments (20.0%), computational methods (16.7%), meta-analysis and secondary data analysis (16.7%), and content analysis (6.7%). Computational methods (36.4%) and interview/focus group research (36.4%) were most frequently used by research studies examining countries in Asia or Pacific Islands.

¹ The leading communication journals examined for this study were (1) *Journal of Communication*; (2) *New Media & Society*; (3) *Political Communication*; (4) *Journal of Computer-Mediated Communication*; (5) *Human Communication Research*; (6) *Communication Research*; (7) *Information, Communication and Society*; (8) *International Journal of Communication*; (9) *Communication Methods and Measures*; and (10) *Public Opinion Quarterly*. These journals were selected based on each journal's impact factor as well as its scope and aim.

In studies focusing on one country, experiments were most widely used (24.1%), followed by surveys (18.4%), interview/focus group research (16.1%), and computational methods (14.9%). For studies examining multiple countries, computational methods were most popular (33.3%), followed by experiments (22.2%), human-coded content analysis (16.7%), meta-analysis or secondary data analysis (11.1%), and interview/focus group research (5.6%).

Although there is an increasing number of academic papers on the topic of disinformation and misinformation, insufficient attention has been paid to the examination of mis/disinformation from comparative and international perspectives. This Special Section on comparative approaches to mis/disinformation features conceptual and data-informed articles with international and global perspectives on the prevalence, impact, and diffusion of mis/disinformation in different countries. Articles selected for the Special Section provide new theoretical and empirical contributions to existing bodies of knowledge, whether focusing on one country or offering comparative perspectives involving multiple countries. The articles, individually and collectively, offer important scholarly and policy implications for studying and combating mis/disinformation around the world.

In This Special Section

The diverse set of articles in this Special Section help to define the contours of this sprawling and growing field and highlight common themes that emerge from the study of mis/disinformation. Whether it be political bots used to test partisan political narratives or videos that propagate misinformation about public health, disinformation and inauthentic behavior are deeply embedded and ubiquitous in digital communication platforms and channels (Wardle & Derakhshan, 2017). Disintermediated and broadly accessible digital communication has long been recognized as an open channel for misleading and false content. And rather than helping, many observers see algorithmically moderated platforms as a step backward, guiding audiences to sensationalistic, outrage-inducing, and hyperpartisan content that is so often rife with disinformation, in effect helping users to embrace their worst instincts (Crockett, 2017; Settle, 2018). Short of major changes to the design and implementation of social media platforms and digital communication tools, misinformation and disinformation are destined to remain an integral part of online public discourse. Fine-grained moderation of digital content at scale appears to be an insurmountable challenge (Gillespie, 2018; Roberts, 2019). Although platforms may tout the future potential for addressing false claims and other forms of harmful speech using artificial intelligence, these same technologies are available to those that spread disinformation, promising a long and boundless game of Whac-A-Mole.

This new reality has prompted scholars to study how audiences perceive mis/disinformation and respond to different interventions designed to help filter good information from bad (Flynn, Nyhan, & Reifler, 2017; Pennycook & Rand, 2019). The work of Chen, Kearney, and Chang in this Special Section contributes to this genre of studies, as the authors describe the many factors associated with identification of and belief in mis/disinformation. The study by Madrid-Morales et al. also fits within this category, as it shows the many ways in which users think about and respond to false information and how these vary substantially across different countries and contexts.

A related but separate body of research focuses attention on the actors and strategies used to manipulate public discourse and propagate disinformation (Marwick & Lewis, 2017; Seo & Ebrahim, 2016).

The studies by Santini, Marcos, and Tucci and Abrahams and Leber both contribute to this literature in novel ways. Another set of less common studies seeks to understand how media systems function and how platforms promote or inhibit disinformation. The study by Kaiser, Rauchfleisch, and Córdova about misinformation on YouTube related to the Zika virus falls into this category.

A sizable proportion of studies is devoted to the essential and important work of describing the nature of disinformation flows online: the motives and tactics of producers, the role of intermediaries and systems in propagating disinformation, and the reception by audiences. There is much more work to be done in this area as an accurate and comprehensive accounting of the phenomenon is a necessary step. As the studies in this volume attest, identifying and documenting deceptive media practices are not simple processes, and anecdotal evidence and casual empiricism are poor substitutes for rigorous analysis. Below is a summary of each article featured in this special issue.

In their article "Electronic Armies or Cyber Knights? The Sources of Proauthoritarian Discourse on Middle East Twitter," Abrahams and Leber assess the level of coordinated media campaigns in Saudi Arabia on Twitter to test the popular conception that online conversations in Arabic-speaking countries are infested with bots and shaped by top-down media manipulation. The authors adopt a group-based bot detection method that looks for anomalies in the creation date of accounts and also draws on information on the removal of accounts by the platform. This bot detection analysis is then used to infer the degree of coordinated behavior associated with conversations on Twitter tied to a selection of hashtags. The study includes an in-depth analysis of three political debates on Twitter and a broader analysis of conversations associated with another 270 hashtags. Rather than finding an instrumental role for inauthentic coordinated actors, they discover that rates of bot prevalence are low, "weak evidence" that bots substantially influenced the discourse. Overall, they find that not more than 5–9% of users associated with these hashtags were plausibly bots. The estimated level of bot activity was relatively low for discussions associated with popular hashtags and higher for more marginal conversations. They conclude that proauthoritarian speech on Saudi Twitter is grounded in organic activity and driven less by top-down coordinated activity and more by the influence of accounts that have built a following based on a proregime stance. Abrahams and Leber consider social media "a vector for top-down propaganda" and "a potential outlet for the expression of bottom-up, proauthoritarian sentiment."

Madrid-Morales and his colleagues provide a comprehensive overview of key issues related to misinformation in six sub-Saharan African countries (Ghana, Kenya, Nigeria, South Africa, Zambia, and Zimbabwe) in their article "Motivations for Sharing Misinformation: A Comparative Study in Six Sub-Saharan African Countries." Recognizing that people in some South African countries share made-up news intentionally despite a high level of perceived exposure to false information, the authors consider contexts in which participants encounter misinformation as well as their motivations for sharing such information as key research questions in the article. Results from their focus groups with young adults in the six countries show "ubiquity of misinformation" among participants on popular social media platforms including WhatsApp, Facebook, and Twitter, as well as concerns about roles of disinformation in political processes such as elections. Their research also found that young adults examined various cues in assessing online information and used established news media sources as benchmarks for evaluating information accuracy. Although motivations to share a story known to be inaccurate varied depending on the topic, a sense of

civic duty coupled with a just-in-case attitude was common among the participants. In addition, use of humor and satire was an important reason to share political information, even if it is known to be false. The authors suggest that this finding might be explained by the long history of using satire in many African countries.

Santini, Salles, and Tucci contribute to the body of literature related to the use of social media in political campaigns in their study of automated and semiautomated social media accounts in Brazil ("When Machine Behavior Targets Future Voters: The Use of Social Bots to Test Narratives for Political Campaigns in Brazil"). They identify a set of Twitter accounts engaged in political discourse and focus attention on a set of accounts aligned with the candidacy of Jair Bolsonaro in the 2018 presidential race, in particular accounts they found to be associated with a pro-Bolsonaro bot net. Adopting a mixed-methods approach, they describe how the Bolsonaro campaign developed and tested political narratives on social media users as early as 2016, using social media "as a laboratory for modeling, profiling, and testing" communication tactics and strategies and analyzing potential voters' acceptance of those narratives. In addition, political campaigns used social bots to engage in "dynamic real-time and long-term experimentations" of various narratives and discourses using impersonated identities and tracked relevant activities via social media analytics tools. The authors describe a troubling trend in which trolls, sock puppets, cyborgs, and bots are employed to exacerbate and exploit social divisions.

"Fighting Zika With Honey: An Analysis of YouTube's Video Recommendations on Brazilian YouTube," by Kaiser, Rauchfleisch, and Cordova, analyzes the video recommendation patterns on YouTube—a platform that has been subject to considerably less research compared with Twitter—with a focus on misinformation about the Zika virus in Brazil. The authors employ a computational approach to understand how YouTube's algorithmically driven recommendation system suggests new videos to users related to the Zika virus and whether videos promoting misinformation are included in the recommendations. Using an approach that draws on network analysis and topic modeling directed at more than 20,000 videos, they are able to show how the recommendation system divides content into clusters and topics, leading for example to separate clusters of videos in English and Portuguese. They show that misinformation about the Zika virus on the platform is not isolated into separate enclaves, but rather resides in the "recommendation algorithm's long tail." This offers both good news and bad news, as most of the popular videos of both communities present largely accurate information about Zika, but a lot of false information exists on YouTube, and such content will eventually be recommended.

Chen and colleagues apply the elaboration likelihood model to analyze how online informational cues influence individuals' belief in and identification of false news in their article "Belief in or Identification of False News According to the Elaboration Likelihood Model." Specifically, argument quality and topical relevance were used as central cues, whereas image appeal, source credibility, and homophily were used as peripheral cues in the study. Empirical data came from an online survey of young adults in Taiwan in which four verified false news stories selected from the Taiwan FactCheck Center were presented to participants in the social media group or the news website group. This research found that perceived argument quality of a false news story influenced participants' belief in the story for both social media and news website user groups, whereas topic relevance was a significant factor only for the social media user group. The authors discuss how their findings might be applicable to artificial intelligence detection approaches for spotting false information. In particular,

they emphasize the importance of identifying social context and design features in using artificial intelligence technology to combat disinformation and misinformation.

Lastly, "Selective Belief: How Partisanship Drives Belief in Misinformation" by Neyazi and Muhtadi focuses on disinformation issues during the 2019 national elections in Indonesia. The authors note that disinformation campaigns during the election were rampant and the Indonesian government even launched a "war room" and hired engineers to fight disinformation and hoaxes. In this context, the study analyzed the relationships among belief in misinformation, social media use for political purposes, and partisanship based on a nationally representative survey of voters ($N = 1,820$) in Indonesia. Study results show partisanship as the most significant predictor of believing or not believing in false information shared during the campaigns, controlling for gender, age, education, and income. Specifically, whether a particular piece of false information was targeted against a person's favored candidate or an opposing candidate affected that person's belief in that information. The authors discuss these and other findings through a theoretical framework of selective belief.

The studies in this Special Section spanning different topics, regions, platforms, and approaches highlight both the complexity of studying mis/disinformation and the context-specific nature of the phenomenon. As more comparative work is conducted globally—a trend we support—the commonalities and differences across cultural and political contexts will become clearer.

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