Amsterdam University Press

COMPUTATIONAL COMMUNICATION RESEARCH 4.2 (2022) 590-628
HTTPS://DOI.ORG/10.5117/CCR2022.2.008.SUK

Do I sound American?

How message attributes of Internet Research Agency (IRA) disinformation relate to Twitter engagement

Jiyoun Suk
University of Connecticut

Josephine Lukito
The University of Texas at Austin

Min-Hsin Su
University of Wisconsin-Madison

Sang Jung Kim
University of Wisconsin-Madison

Chau Tong
Cornell University

Zhongkai Sun
Amazon Alexa AI

Prathusha Sarma
Curai

Abstract

Ongoing research into how states coordinate foreign disinformation campaign has raised concerns over social media's influence on democracies. One example is the spread of Russian disinformation in the 2016 US presidential election. Russia's Internet Research Agency (IRA) Twitter accounts have been known to deliver messages with strategic attempts and political goals. We use publicly available IRA Twitter data created during and after the 2016 US election campaign (2016 and 2017) to examine the nature of strategic message features of foreign-sponsored online disinformation and their

social media sharing. We use computational approaches to identify unique syntactic features of online disinformation tweets from IRA compared to American Twitter corpora, reflecting their functional and situational differences. More importantly, we examine what message features in IRA tweets across syntax, topic, and sentiment were associated with more sharing (retweets). Implications are discussed.

Keywords: Disinformation, Twitter, Internet Research Agency, corpus linguistics, computational social science

Conspiracy theories, rumors, and the selective presentation of information have always been part of political campaigns and persuasion messages. However, their production within the digital landscape, especially combined with disinformation campaigns, has disrupted the healthy information environment and exacerbated epistemic failure (Bennett & Livingston, 2018).

One such disruptive force is the disinformation campaign by Russia's "troll farm," the Internet Research Agency (IRA). Employees of the troll farm operate hundreds of fake accounts that impersonate authentic US persons or groups across social media. During the 2016 US presidential election, IRA accounts interacted with 677,000 Americans on Twitter (Twitter, 2018), with the intent to "sow discord" among American public (United States v. Internet Research Agency LLC, 2018). To do so, the IRA utilized influence operations known as disinformation campaigns, an intentionally coordinated strategy to disseminate false information, where false information encompasses a false context, fabricated identity, or imposter content (Fetzer, 2004). The IRA operates different types of accounts (Linvill & Warren, 2020) and engages in strategic network positioning, such as by micro-targeting specific communities (Starbird et al., 2019). By blending their activities with those of legitimate users, a disinformation campaign's influence can go beyond one election and create social confusion about what sources of information are authentic.

Extant literature has attempted to identify and cluster the profile and activity characteristics of disinformation actors by types, purposes, and strategies (Keller et al., 2020; Alizadeh et al., 2020). However, little attention has been paid to the sociolinguistic aspects of disinformation. As politically motivated strategic agents, disinformation actors like the IRA construct messages to maximize user engagement while disguising their identities. Complementing previous research, we take a sociolinguistic perspective to examine how message construction could help foreign disinformation

actors gain traction and build retweets. Focusing on Twitter, where the IRA operated for the longest (Howard et al., 2018), we first (a) document a linguistic profiling of IRA messages that are different from non-IRA messages from the US and (b) examine the relationship between IRA message features across linguistic styles (e.g., syntax), subject, and sentiment and user engagement via retweets.

This study makes several important contributions to the literature. First, we introduce sociolinguistic perspectives by studying linguistic features in anti-democratic discourses. We look at how certain functional and situational factors provide important contexts for IRA's language use, making IRA messages systematically different from non-IRA English tweets. In addition, by exploring the sociolinguistic features of popular and unpopular disinformation content, our results contribute to ongoing efforts to detect and combat disinformation that has yet focused on sociolinguistics. Lastly, our study presents interdisciplinary perspectives, drawing theoretical insights from sociolinguistics, persuasion, and strategic communication, along with computational methods. Through highlighting the importance of contextualization of social media analysis and disinformation studies, we aim to advance a research agenda that leverages the strengths of computational methods to deepen our understanding of the *social* nature of the current information disorder.

Disinformation Campaign and Audience Engagement

Disinformation refers to "the distribution, assertion, or dissemination of false, mistaken, or misleading information in an intentional, deliberate, or purposeful effort to mislead, deceive, or confuse" (Fetzer, 2004, p. 231). Disinformation is persuasive and strategically employed to manipulate the nature, intention, and goal of others. Although not every piece of information disseminated by disinformation agents is factually inaccurate (Fallis 2009), the use of fabricated identities "disinforms" the public and breeds distrusts (Wardle & Derakshan, 2017).

Embedded within a broader political communication system, social media contain structural vulnerabilities. The lack of gatekeeping, coupled with crowd- and algorithm-driven information flows (Bradshaw & Howard, 2018) allowed disinformation operatives to maximize their influence by crafting the "right" messages to the "right" audience, exploiting the already polarized American electorate. In an environment where information sources are often masked and contexts are collapsed (Pearson, 2020), traditional