Unveiling the Coordinated Inauthentic Behaviour of COVID misinformation on Weibo

Keywords: Coordinate Inauthentic Behaviour, Weibo, Disinformation, Social Network Analysis, Digital Methods

Extended Abstract

The growing prevalence of online influence campaigns that spread false or misleading information on social media in a coordinated way has become one of the main threats to platform integrity, trust, and safety. Coordinated inauthentic behaviour (CIB), introduced by Facebook (now Meta) in 2018 (Gleicher, 2018), describes the group-wise interactions and organisational mechanisms in information campaigns with large coordinated social media efforts to reach large groups of users via online influence campaigns (Starbird et al., 2019). Recent breakthroughs grounded in social network analysis (SNA) for detecting coordinated activity (Keller et al., 2020; Schoch et al., 2022) and open-source toolkits are mainly targeted and designed for non-Sino platforms such as Facebook (Giglietto et al., 2019) and Twitter (Graham, 2020). Such approaches also complement previous social bot detection approaches by identifying such coordination patterns. However, most related studies and existing toolkits in the field targets western platforms mainly. This is problematic because of the uniqueness and diversity in language, background, network ecology, etc., requiring researchers to re-examine and reconstruct the concepts and methods in the context of China and Chinese social media platforms.

Among the various social media platforms in China, Sina Weibo, now the only microblogging platform in China, has an average of more than 500 million monthly active users (Weibo Corporation, 2022), which represents over 50% of China's Internet users. With its large user base and rapid information dissemination capacity, Weibo has continuously served as the frontline to uncover the most controversial events and promote public discussion around such events. However, the platform also faces the problems of misinformation, fake news, and rumours, especially during the COVID-19 pandemic (Leng et al., 2021). While considerable amount of scholarly work has conducted content analysis, such as topic modeling (Yang et al., 2022) and sentiment analysis (Leng et al., 2021; Li et al., 2020; Wang et al., 2021) on such problematic posts, the much less is known about the coordinated inauthentic behaviour behind them.

To address these critical gaps, this paper discursively reviews primary and secondary sources including literature, policy, and quantitatively computational methods on coordinated activity in the first section. This section integrates state-of-the-art coordinated activity detection methods and demonstrates how their interacted concepts in coordinated activity could be applied in the study of Weibo network analysis. The second section modularly and systematically develops those existing methods to detect the coordinated patterns, including co-tweeting, co-retweeting, co-reply, and co-hashtag (topic heat) in Weibo, under a case study of COVID, using the dataset Weibo-COV (Hu et al., 2020). We address two main questions: RQ1. Does large set of CIB exist in Weibo; RQ2. If positive, what are the characteristics of such activities. The introduction of coordinated activity and corresponding detection can help researchers who studying Chinese social media platforms and information campaigns to investigate and understand suspicious and deceptive information operations that shape online narratives and launch influential online campaigns on social media. The third section further

explores the recontextualization of coordination (or information operations) in China and information campaigns in the context of state-back information moderation and platform governance in terms of the results obtained.

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