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Performative Propaganda Engagement: How Celebrity Fans Engage with State Propaganda on Weibo

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ABSTRACT

Authoritarian regimes have increasingly co-opted non-state actors such as celebrities and fans to extend the reach of state propaganda in fragmented digital environments. Despite this growing trend, there remains limited understanding of how fans in authoritarian contexts respond to such efforts. This paper identified a novel phenomenon, *performative propaganda engagement*, to explain why and how celebrity fans in informational autocracies engage with state propaganda. Combining quantitative analysis of fan engagement with *People's Daily* on Weibo and qualitative interviews with celebrity fans in China, this exploratory research finds that celebrity fans actively incorporate the promotion of state propaganda into their daily activities, aiming to enhance the visibility and reputation of their celebrities. Fans primarily engage with celebrity-signaling propaganda, and some of this engagement is instrumental. This research contributes to political communication theory by offering an alternative view of the downstream effects of digital propaganda in authoritarian contexts. The findings shed light on how non-state actors are strategically incorporated into state communication efforts and how fans may behave under a compliance-based logic shaped by political constraints and platform incentives, bridging scholarship on authoritarian information control, fandom politics, and algorithmic media environments.

KEYWORDS

Performative propaganda engagement; celebrity; fandom; propaganda; social media; China

Introduction

Digital technologies have created unprecedented challenges for authoritarian regimes seeking to influence their publics, due to the emergence of high-choice media environments, massive horizontal information flows, and the fragmentation of audience attention (Enikolopov & Petrova, 2015; Fletcher & Nielsen, 2017; Neuman, 2016). These technological shifts have fundamentally reshaped the strategies of authoritarian propaganda (Huang, 2015; King et al., 2017; Little, 2017; Lu & Pan, 2021; Lu et al., 2025; Mattingly & Yao, 2022; Pan et al., 2021; Roberts, 2018), transforming many autocracies into so-called “informational autocracies” (Guriev & Treisman, 2019) that maintain control by shaping public perceptions, behaviors, and the visibility of regime narratives through expanding propaganda systems (Dalrymple & Scheufele, 2007; Enikolopov & Petrova, 2015; Lu & Pan, 2021; Lu et al., 2025; Tolbert & McNeal, 2003).

An emerging strategy that authoritarian regimes have been employing is the co-optation of celebrity fandoms – highly organized and influential online communities devoted to certain celebrities – to promote state agenda (Gao & Chen, 2024; Li et al., 2024). Given the expansive reach of celebrity fanbases, such co-optation enables the state to broaden the reach of state messaging and engage audiences with diverse media habits in a fragmented information environment. Despite this growing trend, there still lacks a clear understanding of how fans and fandom communities in authoritarian settings respond to such co-optation. Specifically, little is known about whether celebrity fans engage with state propaganda, what motivates them to do so, and how this engagement manifests in their daily online media activities.

To address these gaps, this paper introduces a novel phenomenon, *performative propaganda engagement*, to understand the impact of digital propaganda on authoritarian publics. Drawing on literature in communication and political science, I identify this phenomenon in China, one of the most capable informational autocracies with a robust propaganda system and a rapidly expanding online celebrity and fandom culture (Lu et al., 2025; Xu & Yang, 2025; Zhang, 2016). Using a mixedmethods approach that combines exploratory quantitative social media analysis on 12 thousand state-created social media posts from *People's Daily*, the biggest propaganda outlet in China, and their comments, as well as in-depth qualitative interviews with 21 fans in China, I find that celebrity fans actively engage with state propaganda on social media. Fans do not engage indiscriminately with all state-created propaganda. Instead, they selectively engage with propaganda posts that signal their favorite celebrities to support the success and online visibility of the celebrities. In addition, some celebrity fans engage with state propaganda through instrumental approaches and minimal effort necessary to achieve their celebrity-oriented goals.

By exploring why and how celebrity fans engage with authoritarian propaganda, this research contributes to political communication theory by moving beyond traditional persuasion-centered frameworks to examine other outcomes of state influence in digital contexts. The phenomenon of performative propaganda engagement highlights both the potential benefits and inherent limitations of co-opting non-state actors like celebrity fans. It extends existing communication theories by offering a new lens to understand how active audiences interact with political propaganda (Blumler & Katz, 1974). Meanwhile, this research also bridges political communication research with cultural studies by exploring the online political behaviors and activities of fans. Findings that fans integrate state propaganda into their daily metrics work adds an authoritarian, compliance-based perspective to contemporary fandom studies, offering insights into how fandom intersects with mainstream political culture and the broader authoritarian political structures that shape their engagement. Finally, this study also enhances a multi-directional understanding of fans' online activities with consideration of celebrity, the state, and the metrics-driven social media ecosystem.

Digital Propaganda in Authoritarian Contexts

This study focuses on digital propaganda and its engagement in authoritarian regimes. Authoritarian regimes face two principal threats: mass uprisings and elite power struggles (Svolik, 2012). To counter the first, authoritarian leaders rely heavily on propaganda to shape public opinion, signal regime strength, and foster behavioral compliance (Carter &

Carter, 2023; Huang, 2015; Jowett & O'donnell, 2018; Mattingly & Yao, 2022; Peisakhin & Rozenas, 2018). Numerous studies have found authoritarian propaganda to be effective in changing attitudes and shaping mass behavior during the traditional media era. In Nazi Germany, the expansion of radio broadcasting significantly increased support for the regime and incited anti-Semitic mobilization (Adena et al., 2015; Barber & Miller, 2019). During the 1994 Rwandan genocide, state-sponsored radio broadcasts were linked to increased participation in mass violence against the Tutsi population (Yanagizawa-Drott, 2014). Propaganda is often defined as a subcategory of persuasion (Jowett & O'donnell, 2018) related to “the management of collective attitudes by the manipulation of significant symbols” (Lasswell, 1927), which plays a foundational role in the maintenance of authoritarian rule.

Digital technologies have fundamentally reshaped the strategies of authoritarian political propaganda. Authoritarian regimes have had to expand their presence across media formats, through state-controlled media outlets and other regime-affiliated organizations, to reach the mass public. While autocrats were able to capture public attention by dominating a limited number of broadcast channels in the traditional media era, this is no longer feasible in the high-choice media environment enabled by digital media, massive horizontal information flows, and the resulting fragmentation of audience attention (Enikolopov & Petrova, 2015; Fletcher & Nielsen, 2017; Neuman, 2016). In response, many autocracies have transformed into “informational autocracies” that sustain power through strategic information control that combines censorship and propaganda to maintain influence in this competitive media environment (Guriev & Treisman, 2019; Yao, 2023).

The implication is that in the digital media era, the autocratic media system as a whole functions as a propaganda system, designed to shape public perception, behaviors, and the visibility of regime narratives. Although not every single piece of content produced and disseminated by such a system is false, biased, or manipulative, the system as a whole is designed to reinforce regime legitimacy and mitigate mass threats to regime survival. As a result, this paper defines authoritarian propaganda based on *source*. Content produced by regime-affiliated outlets, including state broadcasters, government-affiliated accounts, or government-sponsored agents, is considered propaganda because it inherently serves the political goals of autocrats.

This source-based definition of propaganda builds upon scholarly work (e.g., Bleck & Michelitch, 2017; Pan et al., 2021) that extends beyond conventional definitions of propaganda as merely biased or persuasive information (Jowett & O'donnell, 2018; Lasswell, 1927). Effect-based definitions centered on the persuasive outcomes may preclude content and narrow the scope of analysis, as propaganda system influences the public through an integrated system encompassing diverse mechanisms. In regimes like contemporary China and Hafez al-Assad's Syria, where autocrats face minimal electoral constraints and possess high repressive capacity, propaganda also functions as a tool of domination (Carter & Carter, 2023; Huang, 2015, 2018; Wedeen, 1998). This domination manifests through consistent, positively biased, and even seemingly absurd coverage of the regime, which signals the regime's strength and elicits compliance, even without necessarily changing individual beliefs (Carter & Carter, 2023; Huang, 2015).

Furthermore, this definition encompasses how autocrats saturate public discourse with various types of state-sponsored content, including traditional party-line ideological messaging, nationalism, morality promotion, soft news, as well as entertainment and cheerleading

content (King et al., 2017; Lu & Pan, 2021; Lu et al., 2025; Zhu & Fu, 2024). Even seemingly non-manipulative, mundane, or entertainment-oriented content serves important functions within this system – filling digital spaces that might otherwise feature critical voices, diverting attention from critical issues, or boosting the algorithmic visibility of regime-affiliated accounts (King et al., 2017; Roberts, 2018; Woolley & Howard, 2017). These varied state-content streams ultimately advance the regime’s broader objectives of influencing public attitudes, shaping behaviors, and cultivating political support.

Co-Opting Celebrity Fandom in Authoritarian Propaganda

Authoritarian Co-Optation of Celebrity Fandom

Against this backdrop of informational autocracies, a growing body of research has shown how authoritarian regimes extend the reach of their propaganda through co-optation of non-state actors. These non-state actors – including celebrities (Chen & Gao, 2022; Shadijanova, 2022; Xu & Yang, 2025), influencers (Loh, 2023; Xu et al., 2022), and public relations professionals (Lowenstein, 2022) – are able to communicate regime messages to broader, less politically engaged audiences. These actors have organic followings (Boorstin, 1992), are experienced in boosting their online visibility (Bucher, 2017; Cotter, 2019), and are perceived to have high authenticity (Cunningham & Craig, 2017; Marwick & Boyd, 2011), serving as influential intermediaries for autocratic narratives.

Previously dismissed as subcultures, “dangerous others,” or apolitical groups that deviate from mainstream political culture (Jensen, 2002; Sandvoss et al., 2017; Wu et al., 2019), celebrity fandom communities have emerged as strategically important targets for authoritarian co-optation (Li et al., 2024). Fans are individuals who devote themselves passionately to a particular cultural product, such as an entertainment celebrity, influencer, sport, or game (Brough & Shresthova, 2012; Yan & Yang, 2021). These emotional ties with their fan object often give rise to organized communities, known as fandoms, that are structured, self-regulating, and governed by shared norms, identities, and collective practices (Brough & Shresthova, 2012; Harris, 1992; Jenkins, 2006; Lynch, 2022).

Among the many forms of fandoms, celebrity fandom stands out as particularly influential in the digital era. As media construct and amplify the visibility of entertainment celebrities, this visibility also attracts large numbers of passionate fans (Brough & Shresthova, 2012; Yan & Yang, 2021), many of whom develop one-sided intimacy, strong loyalty, and emotional attachment to the celebrity (Horton & Richard Wohl, 1956; Lueck, 2015). In the digital era, these fandoms have become highly coordinated, with members engaging as “immaterial laborers” and voluntarily contributing their time and effort to enhance the celebrity’s public visibility without compensation (Andrejevic, 2008; Fung, 2009). A central expression of this labor in the digital world is “metrics work,” the coordinated efforts to boost celebrities’ online engagement metrics (i.e., likes, comments, reshares) to ensure the visibility and favorability of their celebrity on social media platforms (Chu, 2018; Zhang et al., 2023).

Authoritarian regimes have increasingly sought to co-opt celebrity fandoms into their propaganda system to reach broader publics. They have enlisted celebrities as ambassadors of state policies, events, or campaigns in their online content creation, creating what I term “celebrity-signaling posts.” For example, in China, the Hunan provincial government

recruited Lay Zhang, a top singer from Hunan with more than 50 million followers on the Chinese social media platform Weibo, as a “Public Relations Ambassador of the Hunan Taxation Service,” and publicized this relationship on Weibo (Global Times, 2021). Authoritarian governments also incentivize celebrities to promote state initiatives and agendas through their own social media channels (Chen & Gao, 2022; Shadijanova, 2022). For instance, during and after Pelosi’s 2022 visit to Taiwan, Chinese top celebrities like Jackson Yee reposted China Central Television’s “One China” message on their own Weibo to millions of followers (Chen & Gao, 2025).

Fan Engagement with Authoritarian Propaganda

Despite this increasing co-optation, there lacks understanding of how fans and fandom communities react to state propaganda in authoritarian contexts. As active audiences (Blumler & Katz, 1974; Fiske, 2010; Hall, 1973), fans engage with media through a complex process of interpretation, where their preexisting attitudes may shape their perception of and interaction with state propaganda. Therefore, fan engagement with state propaganda represents an intricate interplay between individual self-presentation, media consumption patterns, and the features of an authoritarian political context.

While co-optation of celebrity fandoms occurs in democratic settings – as seen in Oprah Winfrey’s and Taylor Swift’s endorsement of Democratic candidates (Gabbatt, 2018; Majic et al., 2020), celebrity fandoms in informational autocracies navigate a far more restrictive landscape. Celebrity fandoms can be targeted if perceived as politically threatening, particularly when their collective action potential becomes visible (King et al., 2013). While overt coercion is not always present, the ever-present threat of digital repression (Earl et al., 2022) makes dissent and refusal to engage almost impossible, as they are often met with content removal or even more severe punishment. However, within the implicit boundaries set by coercion and censorship, fans may still maintain limited forms of agency in the granular decisions regarding their propaganda engagement – for example, when to engage, how to engage, and how much effort to devote to such engagement.

Research on why and how fans engage with state propaganda remains sparse. Current case study evidence suggests two different expectations. On the one hand, studies have suggested *substantive engagement*, with celebrity fans primarily motivated by nationalism or strong regime loyalty to engage. For example, celebrity fans in China have mobilized to create hundreds of thousands of posts in online campaigns against Taiwanese and Hong Kong activists (Fang & Repnikova, 2018; Liu, 2019), while numerous fans of Z bloggers on Telegram have promoted pro-Russia narratives during the Russo-Ukrainian War. However, these studies usually focus on spontaneous nationalist events or crises, while knowledge regarding whether these fans engage with state propaganda during their everyday activities remains absent. If this explains fans’ propaganda engagement on a daily basis, one would expect: (a) state-oriented motivations driving propaganda engagement and (b) comprehensive and effortful promotion of propaganda content.

On the other hand, emerging case studies suggest that celebrity fans may engage with authoritarian propaganda in a symbolic, *performative* way, using it as a resource to benefit their celebrity or fandom. For instance, Wang and Luo (2023) illustrate how fans symbolically engaged with pro-state nationalist content in COVID-19 discussions primarily to amplify their idols. Similarly, Gao and Chen (2024) demonstrate that celebrity followers in

China selectively interact with celebrities' reposts of state messages instead of all state-created posts. If celebrity fans' propaganda engagement is performative on a daily basis, one would observe the following features.

First, one would expect to see fans primarily motivated by the *pursuit of gains for non-state agents to whom they are loyal* rather than the state-oriented goals. At the individual level, this pursuit stems from fans' strong loyalty to their celebrity, driving them to leverage state propaganda to enhance the visibility or other benefits of their celebrity or fandom. At the group level, when propaganda engagement is perceived as beneficial to the celebrity by their fandom, fandom members may be compelled by peer influence and in-group solidarity to support and amplify propaganda that aligns with their collective interests. If this motivation holds, fans may selectively engage with propaganda content that enhances their celebrity's visibility rather than content that best serves state objectives. In particular, fans' engagement patterns with celebrity-signaling propaganda – state content that directly co-opts their celebrity – should differ systematically from their engagement with comparable non-celebrity state content, with the celebrity signal, rather than the state agenda, driving their behavior.

Second, celebrity fans who performative engage with state propaganda are expected to engage in more *instrumental* ways, making their involvement performative rather than substantive. Fans engaging performatively may invest small effort in comprehending and promoting propaganda messages. They may only invest the effort necessary to leverage propaganda effectively for achieving their specific goals.

Information Control and Online Celebrity Fandom in China

This paper aims to shed light on why and how celebrity fans engage with autocratic propaganda by examining evidence from China. China represents one of the most capable informational autocracies today, where the Chinese Communist Party (CCP) maintains power through sophisticated information control rather than overt violence or excessive ideology in order to maintain regime stability (Guriev & Treisman, 2019). The CCP has long maintained centralized control over traditional broadcast media (Brady, 2009; Qin et al., 2018; Stockmann, 2013), effectively turning its entire media ecosystem into a cohesive propaganda system.

In the digital era, this propaganda system has evolved to capture public attention online through a combination of complementary strategies. First, the CCP has mobilized massive central and local agents to flood digital media and platforms (King et al., 2017; Lu et al., 2025). The party applies new content strategies to package political propaganda as soft, entertaining, and attention-eliciting content (Lu & Pan, 2021, 2022; Mattingly & Yao, 2022; Zhu & Fu, 2024; Zou, 2023) and augments state agents with political bots and human commentators to increase their reach (Bolsover, 2017; King et al., 2017). Simultaneously, the CCP implements large-scale censorship, from account bans to selective content removal, to eliminate dissenting voices and limit the public's access to unfavorable content (Chen & Yang, 2019; King et al., 2013; Roberts, 2018). In addition, the CCP also collaborates with social media companies to embed algorithmic settings that favor state-sponsored content. For example, the Sunshine Credit Score on Weibo rewards users for engagement with pro-state content by improving their account status.¹ These integrated strategies

collectively enable a comprehensive propaganda system in China that shapes public perception, behaviors, and the visibility of regime narratives.

Online celebrity fandom in China has flourished alongside informational autocracy, concurrent with media marketization, economic reform, and Internet culture (Yin, 2020; Zhang, 2016). Initially influenced by imported cultures, it has since transformed under the influence of mobile Internet and social media. In recent years, reality shows like “Idol Producer” in 2018 attracted numerous fans to devote their time and labor to supporting their idols’ success through their daily social media practices on Weibo and video-streaming platforms (Chu, 2018; Zhang et al., 2023). Through decades-long development, Chinese online celebrity fandom has evolved to focus on fostering indigenous celebrities through “parakin relationships,” in which fans see their idols as family members, beyond traditional parasocial relations (Lueck, 2015; Yan & Yang, 2021).

Concurrently, the visibility competition on Chinese social media has motivated fans to boost online metrics for their celebrities through daily metrics work (Yin, 2020; Zhang et al., 2023) and to develop professional structures and specialized knowledge to support their metrics work. For example, fans’ daily metrics work is often organized by key stakeholders: the metrics team, influential fans, and the metrics station, as Figure 1 shows. These lead fans set goals, assign tasks, and supervise other fans (Zhang & Negus, 2020). Ordinary fans, though less influential, also contribute either independently or under the guidance of lead fans to enhance online metrics for their celebrity (Zhang et al., 2023).

While celebrity fandom has become increasingly prevalent on Chinese social media, its growth has been constrained by state control. The CCP has sought to manage celebrity fandoms through a dual strategy of regulation and co-optation, employing both indirect and direct approaches. With a longstanding history of regulating celebrities, the state enforces strict rules through departments like the Ministry of Culture and the National Radio and Television Administration, banning celebrities that challenge its legitimacy (Chen & Gao, 2022; Jeffreys & Xu, 2022; Sullivan & Kehoe, 2019). Fans are thus aware that if the state perceives them as disobedient their celebrity may be similarly sanctioned. Online celebrity fans also encounter direct government control. The “Qinglang Fandom Disorder Rectification” (清朗·饭圈乱象整治专项行动) campaign launched in 2021 has

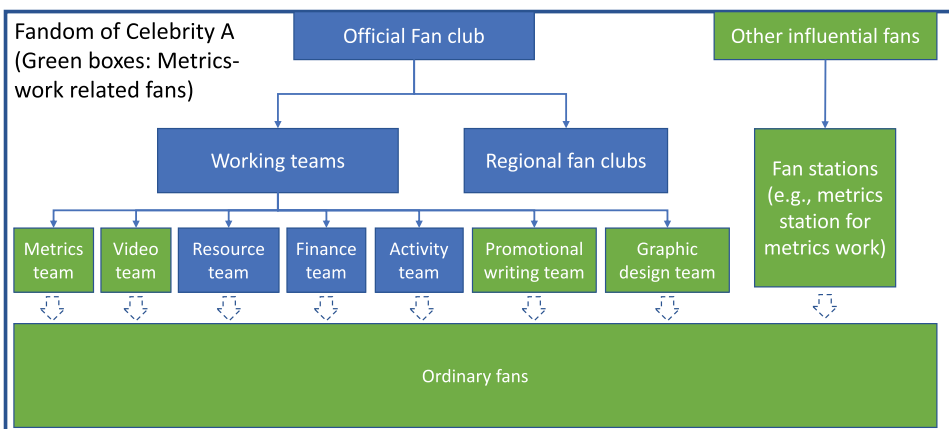


Figure 1. Organization of a typical celebrity fandom.

resulted in large-scale removal of posts and fan accounts deemed as harmful by authorities, punishment of what is characterized as “vicious competition,” and active discouragement of various types of celebrity-related metrics work on Weibo (Chen, 2021; Zhang, 2024).²

Meanwhile, the CCP actively co-opts celebrities and celebrity fandoms into their content creation. The Chinese government and the CCP have a long history of recruiting high-profile celebrities into public service campaigns and patriotic projects, leveraging their visibility to promote policy messages, socialist values, or national unity (Chen & Gao, 2022; Sullivan & Kehoe, 2019; Xu & Yang, 2025). In recent years, Chinese state media has also proactively incorporated fandom culture by integrating fan elements into their content creation. For example, during the 2019 Hong Kong protests, Chinese state media promoted fan-like hashtags such as #WeAllHaveOneIdolCalledChina (#我们都有一个爱豆名字叫阿中) to encourage pro-regime discourse on Weibo. Nevertheless, why and how Chinese celebrity fans engage with state propaganda on a daily basis remains unclear.

This combination of an informational authoritarian context, a high-loyalty and metrics-driven fandom culture, and the co-optation of celebrities and their fandoms in propaganda production makes China an ideal case for examining why and how fans engage with the autocratic propaganda system. Therefore, this paper addresses the following research questions:

RQ1: Why do celebrity fans in China engage with authoritarian propaganda in their daily metrics work, and to what extent is this engagement driven by non-state motivations?

RQ2: How do celebrity fans engage with authoritarian propaganda, especially celebrity-signaling propaganda?

Data and Methods

This study applies quantitative analysis of social media data and qualitative interviews with celebrity fans from different fandoms in China. Despite the dearth of prior research, these exploratory approaches serve as the first investigation into why celebrity fans in China engage with authoritarian propaganda in their daily activities on social media and how.

Celebrity-Signaling Propaganda on Social Media

The quantitative data used for this study were collected from Weibo, where fans actively engage in metrics work for their celebrities. I collected timeline posts from the Weibo account of the largest Chinese mainstream media outlet in China, *People's Daily* (《人民日报》), which had 157 million Weibo followers as of November 2025 and widely regarded as the most influential propaganda outlet. As the flagship propaganda outlet of the CCP, *People's Daily* occupies a central position within China's propaganda system. It functions as the primary agenda-setter, setting the tone for state media narratives and propaganda strategies in China. Its content directly reflects the CCP's political priorities and serves as the authoritative source that other state outlets follow, making it the ideal focal point for examining how celebrity fans engage with state propaganda. Simultaneously, the

propaganda produced by *People's Daily* is highly visible on social media, allowing fans to engage with it. While focusing on a single outlet on a single platform may limit the generalizability of the findings, it provides a consistent and in-depth examination of the interplay between state media and celebrity fans within China's most significant online ecosystem. In total, I collected 12,057 posts generated between January 1, 2021, and December 31, 2021, retrospectively in 2022, using *Weibo Crawler*, a Python-based web crawler built upon Weibo's official API.³

To examine RQ1, I empirically tested whether fans engage more with celebrity-signaling propaganda content than with non-signaling state content as a proxy for underlying motivation. The first step was to identify state media posts that signal at least one *high-influence celebrity* in their content. I focused on high-influence celebrities as they are visible enough to attract numerous fans, and their fandoms are motivated and experienced in doing metrics work to boost their visibility. I compiled a list of 96 high-influence celebrities in Greater China from the Star Power List on Weibo, which routinely scored and ranked celebrities by their popularity, from December 2019 to June 2020. Most celebrities had more than five million followers on Weibo (More details about the celebrity selection can be seen in [Appendix A1](#)).

With this list of high-influence celebrities, I coded state media posts as celebrity-signaling posts if they met the following two criteria:

- (1) If the post mentioned at least one high-influence celebrity's name or signaled the high-influence celebrity in its content.
- (2) If the goal of signaling the high-influence celebrity or celebrities was not for criticism, punishment, or other negative purposes. For example, a *People's Daily* post created on July 31, 2021, condemning the behavior of Kris Wu and emphasizing that celebrities should be more careful in exercising self-discipline and following the law, was not considered a celebrity-signaling post.

To capture these celebrity-signaling posts, I extracted the posts automatically by using a dictionary of 96 high-influence celebrities' names and Weibo handles. Then, I applied human validation to exclude the false positives based on the second criterion. In total, 52 posts among the 12,057 *People's Daily* posts signaled a high-influence celebrity in their content. This low frequency is expected, as state propaganda often prioritizes content that emphasizes regime strengths, such as government achievements, policies, and the image-building of national leaders. However, the presence of these 52 celebrity-signaling posts may serve as a gateway to attract broader and more diverse audiences, thereby extending the reach and influence of the state agenda in strategically meaningful ways.

Among these 52 posts, 39 did not involve the celebrity's direct engagement with state propaganda (e.g., the celebrity forwarding a post immediately after being signaled), ruling out the potential influence of celebrity engagement on fan engagement, which were used for further analysis. Among these 39 posts, 20 propagated state-sponsored cultural activities, such as the Chinese New Year Gala and Chinese cultural heritage and products. Fourteen incorporated celebrities in promoting central-level political events, such as the Chinese Communist Party anniversary and the Winter Olympics. Five promoted central and local-

level policies and government behaviors. An example of celebrity-signaling post can be seen in [Appendix A2](#).

To compare the engagement with celebrity-signaling propaganda posts and non-signaling posts, I conducted an analysis of the top comments on celebrity-signaling propaganda posts and their adjacent posts. I focused on comments as they reflect more efforts by fans through a composed communication process than other one-click social media engagement like endorsements, and comments are found to influence perceptions (Burke & Kraut, 2016; Zell & Moeller, 2018).

Figure 2 shows the process of this analysis. For each celebrity-signaling post, I included 10 posts published before and 10 posts published after, resulting in a set of 21 posts (including the signaling post) per instance ($T = -10, -9, \dots, 0, \dots, 9, 10$). By examining adjacent posts, the analysis controls for temporal and topical variations in state media content, allowing for a more consistent comparison between celebrity-signaling and non-signaling propaganda. This yielded a corpus of 819 posts (39 celebrity-signaling + 780 non-signaling). From each post, I collected the top 10 comments. Two human coders manually identified whether each comment was made by a fan account of the signaled celebrity or celebrities at $T = 0$ based on account name, verification status, description, avatar, and Weibo homepage background image. The rationale for this approach is to identify fans who actively engage in metrics work for celebrities, as most of these fans include references to their favorite celebrity in their account profiles to enhance the celebrity's visibility.⁴ I then calculated the proportion of fan comments (%fans) for each post and averaged these proportions across posts made at time T . If fans performatively engaged with state propaganda with non-state motivations, %fans is expected to be high only among celebrity-signaling propaganda posts ($T = 0$), while the rate should remain at a continuously high level across all posts for state-oriented, substantive propaganda engagement. Additionally, I calculated the %fans across the three topics identified in *People's Daily* posts (central-level

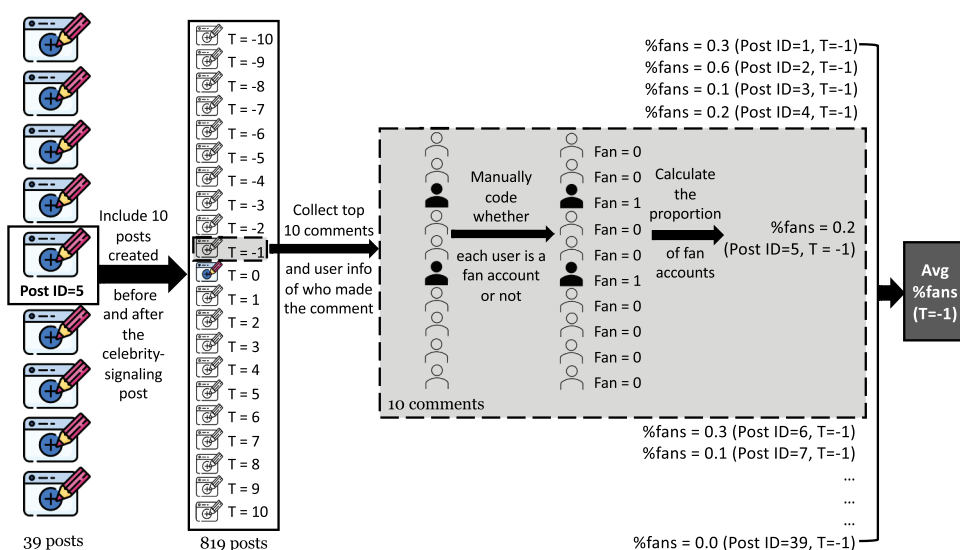


Figure 2. Comments analysis of celebrity-signaling propaganda posts and adjacent posts.

political events, policies and government behaviors, and cultural activities and products) and used ANOVA to compare the means of the %fans across these groups.

Given the small sample size and the non-normal distribution of %fans, I employed the non-parametric Wilcoxon signed-rank test. Specifically, for each of the 39 identified celebrity-signaling posts, I conducted a Wilcoxon signed-rank test to determine whether the median %fans in the 20 surrounding comparison posts is significantly lower than that of the celebrity-signaling propaganda post. Additionally, I applied the Bonferroni correction to adjust the p-values, accounting for the increased risk of false-positive errors associated with multiple comparisons (39 tests).

As a robustness check, I expanded the window for selecting non-signaling propaganda posts to 20 posts before and after, encompassing a total of 1599 posts. Similarly, I collected the top 10 comments for each post, performed the same human annotation on 15,990 comments, and replicated all analyses. Findings of this robustness check are provided in [Appendix A3](#). Additionally, since the state may employ bots to boost the visibility of propaganda (Bolsover & Howard, 2019) that potentially interfere or confuse with fan-driven visibility boosting, I randomly sampled 10% of all fan accounts found in this analysis to assess whether each was a bot (see [Appendix A4](#)). This assessment involved an in-depth analysis of account metadata, activity patterns, and post engagement.

Qualitative Interviews

While the quantitative analysis provides an approximation of fans' motivations through engagement patterns, I conducted in-depth qualitative interviews with 21 celebrity fans to more directly explore why and how they engage with state propaganda, particularly celebrity-signaling propaganda. The interviewees were recruited from Weibo. I initially sent out an advertisement post on Weibo for recruitment. Among the 212 fans who responded, 160 were fans of celebrities who originated from the Greater China.⁵ After filtering and sampling (see more details in [Appendix A5.1](#)), 21 fans of 20 celebrity fandoms ultimately participated in interviews. The celebrities they follow included singers, actors, actresses, and idols selected from idol-production programs. Fans ranged in age from 18 to 45. They had been dedicated members of the fandoms for between 7 months to 15 years, and the number of followers of their Weibo accounts ranged from 35 to 12,000. Among these fans, 12 of them are verified as a "Super topic influencer fan" (超话粉丝大咖) or "Super topic moderator" (超话主持人), which can only be applied after a continuous dedication to metrics work regardless of their number of followers. Five of them are lead metrics-work fans who managed their metrics work team or set up their own metrics-work fan station. More detailed fan characteristics are listed in [Appendix A5.2](#).

With each fan, I conducted a semi-structured interview ranging from 60 to 75 minutes using videoconferencing software. The interviews all started from a series of guiding questions: when and how they entered fandom, when they engaged in metrics work for their celebrities and in what types, how they reacted when their celebrities were mentioned by state propaganda, how they understand state interactions with fandom, and their thoughts on the relationships among their celebrity, the state, Weibo platform, and their fandom. Most of these questions were open-ended by design. Throughout, the interviews were supplemented by more probing questions about issues such as why and how fans engaged with state propaganda, what types of metrics work they had undertaken, as well as

their experiences and observations in their fandom. The interview typically ended with questions about their demographic characteristics and some extra questions if time permitted. The interviews were recorded with consent and anonymized. I assigned celebrity ID and fan ID in reporting the quotes and findings in the following sections to prevent re-identification.

From the transcriptions and interview notes, following the critical steps of grounded theory (Creswell & Poth, 2016), I identified patterns and categories around two themes. First, I focused on fans' engagement with state propaganda after the state media directly mobilized their celebrity. Additionally, I examined fans' attitudes toward the interactions among the state, celebrities, algorithms, and fandoms. Based on these categories and patterns, I developed a systematic explanation of why and how fans engage with state propaganda on a daily basis.

Results

Celebrity-Oriented Motivations for Propaganda Engagement

To answer RQ1, both quantitative and qualitative results point to celebrity-oriented motivations as the primary motivations. The quantitative analysis reveals that fans in this dataset engage selectively with state propaganda based on celebrity presence. Figure 3 shows that fans make approximately 62% of the top comments under celebrity-signaling propaganda posts ($T = 0$), while their engagement remain below 5% among posts created before and after the celebrity-signaling posts. Thirty-seven out of 39 Wilcoxon signed-rank tests show that the median proportion of fan-made comments in the surrounding comparison posts is

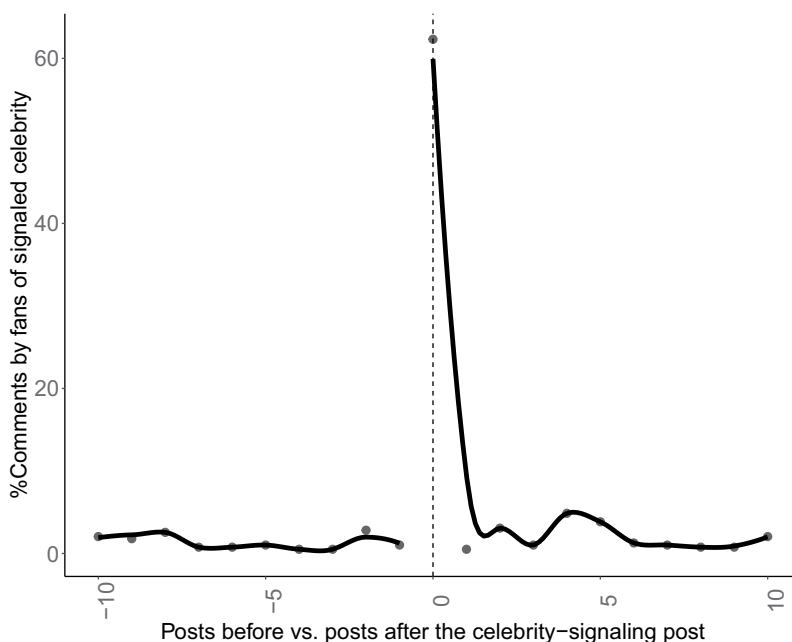


Figure 3. Average rate of fan-made comments at time T.

significantly lower than that in the celebrity-signaling post. The findings remain robust when the adjacent window is expanded to 20 and no bot activity is found.

Furthermore, the subtopic analysis finds that even among propaganda posts that feature celebrities, fans exhibit selective engagement patterns ($p < .001$). On average, 75% of comments on propaganda posts about central-level political events (median = 0.8) and 64% of comments on cultural promotion posts (median = 0.6) are made by fans. In comparison, only 22% of comments on state policy posts are made by fans (median = 0.3). These findings show that fans selectively engage with high-salience or popular political content that is likely to attract broader attention, suggesting how visibility considerations motivate their propaganda engagement.

From qualitative interviews, some fans who have engaged with state propaganda talked about how they recognize and value the distinctly political significance of state recognition for their celebrities. They are highly aware that being featured by state media carries different weight than other forms of publicity. As Fan ID6 explained:

Being mentioned by official media is seen as a great honor by fans. It means your idol is not just a celebrity, but also officially recognized as an outstanding artist. That's why we definitely do forward-boosting to promote the post. Fans might even take screenshots of it and share them on Douban or in other fan communities, saying things like "My idol was featured by [a specific] official media outlet." It's something we're really proud of.

This awareness of the state source's unique authority is further emphasized by Fan ID4, who highlighted that regime-affiliated accounts like *Beijing News* are even more important than top influencers or entertainment platforms precisely because these accounts are verified government accounts representing an official stance.

Beyond symbolic recognition, some celebrity fans perceive the state's signaling of celebrities as significant because it directly translates into tangible career benefits and resources within China's political system, as Fan ID9 explained:

Currently there is very limited space for idols to develop their career. They either transition to be actors or participate in variety shows. If you want to participate in A-list shows or programs, you definitely need the recognition of state media Once you fail to obtain recognition from the state media, you will be excluded from such opportunities. Therefore, having a positive image and gaining recognition from the state media as a positive idol is crucial. It determines your access to resources and the opportunity to participate in important programs.

These insights reveal that fans' engagement with state propaganda is fundamentally shaped by their understanding of China's political context – they recognize that state propaganda system operates differently from commercial media. This political awareness distinguishes their behavior from general fandom activities, as fans navigate state power structures to benefit their celebrities.

Celebrity-Oriented Approaches of Propaganda Engagement

To answer RQ2, interviews reveal three major approaches that fans use to leverage celebrity-signaling propaganda for their celebrity's benefit. These approaches are specifically designed around celebrity-oriented goals rather than promoting state messages. The most common practice is *comment manipulation* (控评), where fans strategically manipulate the comments on a post at a large scale to maintain a

positive image for their celebrity. Among the 21 fans interviewed, 13 mentioned that they engage in comment manipulation under the celebrity-signaling propaganda post.

Comment manipulation is facilitated in two ways. The first way is by flooding the target propaganda post with hundreds and thousands of positive comments about their celebrity. Another common form is to boost the likes of comments created by other fans in the same fandom, known as “liking positive comments” (控红). In this way, comments with more likes appear at the top of the comment section of the propaganda post and are given more prominence. Fan ID15 explained that ordinary fans are more likely to do this because their own comments are often not able to reach the top due to the limited influence of their accounts. Instead, they can contribute to the visibility of their celebrity on state accounts by boosting likes for comments from more influential accounts in their fandom. Using these two different approaches, fans can enhance the presence of their fandom in the comments section of celebrity-signaling propaganda posts on state media, which explains the high proportion of fan-created comments in Figure 3. By observing the top comments, state propaganda outlets may also be able to evaluate whether co-opting certain celebrities effectively activates their fandoms for engagement.

Another type of metrics work in promoting celebrity-signaling propaganda is *forward boosting* (轮博), in which fans generate hundreds of thousands of reshares of a post. Seven fans mentioned that they engage in forward boosting when they see state accounts signaling their celebrities. Some fan groups even set specific numeric goals for forward boosting. For instance, Fan ID5, a manager of a metrics team for a singer, mentioned that they typically aim for 10,000 forwards on celebrity-signaling propaganda posts by state media or government accounts.

However, several fans acknowledged that, compared to comment manipulation, forward boosting is less frequently employed when it comes to state-created content, and they provided several reasons for this. Some of them expressed concerns about potential negative online consequences, such as a drop in the Sunshine Credit Score or the risk of being flagged as a bot account by Weibo, which may hinder their daily metrics activities. Others highlighted the potential dangers associated with forward boosting, as excessive metrics work has been one of the primary targets of state regulations on online fandom (e.g., the Qinglang campaign). These regulations may result in content removal and account banning by the state. At the same time, it may harm the perception of the celebrity, both from the state and among individuals outside their fandom.

In addition to post-level metrics work, 16 fans mentioned that they also *follow the state account* that signals their celebrity. Most of them follow the state account to be able to promptly engage in metrics work for future posts if their celebrity is signaled again. Fans who observe frequent collaborations between their celebrities and the state emphasized this. Several fans also noted that some state accounts on Weibo only allow comments from their followers, which means that fans instrumentally follow these accounts in order to have the opportunity to boost metrics for their celebrities. In particular, a few fans mentioned that they would follow the state account even before their celebrity was signaled if they knew that their celebrity would be involved in planned state events, such as the Spring Festival Gala. Through regular interactions with the state propaganda, they prepare their account and comments to be quickly observed by the state during their propaganda engagement. Fan ID3, a fan of several singers and idols, described the process in more detail:

The New Year's Gala (organized by provincial state media) is something we will prepare in advance. Regardless of whether [Celebrity 2] will attend these New Year's Gala or not, we will go to Weibo accounts of various TV stations and definitely become devoted fans (of them) . . . When the official announcement is made, we can manipulate the comments. Because we don't know where [Celebrity 2] will go for the New Year's Gala, we cast a wide net, hoping to catch at least one.

Instrumental Propaganda Engagement

Beyond celebrity-oriented motivations and approaches, I observed an instrumental engagement with celebrity-signaling propaganda among some fans, making their involvement more performative rather than substantive. This pattern directly contrasts with how state-recruited agents or bots would engage with state messaging.

Specifically, in creating content to comment or forward celebrity-signaling propaganda posts, some fans mentioned that they borrow narratives provided by their metrics team. For instance, Fan ID9 mentioned that their metrics team often supplies fans with well-crafted sentences structured like elegant poems to use in their comments under celebrity-signaling propaganda. This reduces the workload of individual fans in thinking of their own words or narratives to promote state propaganda. For forward boosting, the content creation can be even less effortful. For example, several fans indicated that they include minimal content, such as adding a cardinal number or emoji, when reposting a celebrity-signaling propaganda post. The limited number of posts created for comment manipulation and forward boosting also distinguishes this engagement further from state-sponsored astroturfing or bots efforts that create high volume of messages to amplify propaganda (King et al., 2017).

However, this process is not completely effortless. Although several fans mentioned that they sometimes applied automated tools to generate pro-regime content, in most of times they manually create content to promote state propaganda and employ different narrative strategies. In particular, “genuine feeling” (真情实感) and “positive energy” (正能量) are two buzzwords that frequently emerged in interviews when fans discussed their narrative strategies for crafting comments under state media posts. Some fans mentioned that they are more cautious when drafting comments for celebrity-signaling propaganda. Fan ID17 shared that they would use formal languages to highlight their celebrity's skills when praising them. Fans also reflected that their comments on state propaganda posts tend to focus more on the propaganda content itself rather than on the celebrity, which differs from their comments on brand or non-state accounts that primarily focus on praising the celebrity or their accomplishments. For example, Fan ID15 mentioned that they avoid praising the celebrity's appearance in their comments on state propaganda posts as it could make their celebrity and fandom appear “superficial.”

Highly intense propaganda engagement also happens, but mostly when it comes to the competition with other celebrity fandoms. Some fans mentioned that state propaganda posts sometimes signal more than one celebrity. Fan ID13 mentioned that in such cases, they usually “battle” with other fandoms to secure the top comments of these propaganda posts. Fan ID4 emphasized the competitive motivation in the following way:

If the state post mentions other celebrities in a Weibo post besides [Celebrity 3], there may be a requirement in terms of quantity (of doing metrics work). As a fan, you definitely want to try your best to put your idol in the front row (of comments) We will try to push comments related to [Celebrity 3] to the top 10 or even the top 5.

Discussion

This paper sheds light on the engagement with digital propaganda in informational autocracies like China. By examining why and how celebrity fans interact with state propaganda, especially celebrity-signaling propaganda, this study identifies and characterizes a new phenomenon termed as performative propaganda engagement—selective, instrumental engagement driven by celebrity-oriented rather than state-oriented motivations. Through quantitative analysis of social media data and qualitative interviews with celebrity fans, I find that celebrity fans actively incorporate state propaganda into their daily metrics work and primarily engage with celebrity-signaling propaganda instead of indiscriminately with all propaganda content. The celebrity-oriented goals drive fans to develop specific approaches to engage with celebrity-signaling propaganda, including targeted post-level metrics work and celebrity-motivated following of state accounts. At the same time, these engagement practices can be instrumental when fans invest only the necessary effort to achieve their celebrity-oriented goals rather than substantively promoting state messaging.

Understanding Digital Propaganda Effectiveness in Informational Autocracies

The findings contribute to a growing body of literature on digital propaganda in authoritarian regimes by moving beyond traditional persuasion-centered frameworks (Jowett & O'donnell, 2018) to examine other outcomes of state influence efforts in digital contexts. As high-capacity informational autocrats are increasingly co-opting celebrity fandoms in increasing the reach of their agenda, the performative engagement indicates both promise and limitations of this approach.

Performative engagement does suggest measurable benefits for authoritarian information control when co-opting celebrity fandoms. As found in both quantitative and qualitative findings, celebrity fans contribute significantly to the metrics of celebrity-signaling posts created by the state. Even though some of the engagement approaches are instrumental, these efforts can successfully engage audiences with diverse media habits and low political interests in consuming state messages, thus enhancing the overall visibility of state propaganda on social media. This significant increase in visibility may heighten the likelihood of other social media users encountering propaganda within an algorithmic media ecosystem, potentially influencing their opinions and behaviors. This dynamic differs from traditional propaganda theories such as the two-step flow theory (Katz, 1957) that emphasize opinion leaders' mediation role, while achieving similar effects of increased propaganda reach through organized community engagement.

This performative propaganda engagement also explains why informational autocracies like China may tolerate these alternative power structures that have organizational strengths for protests (McAdam et al., 1999). Rather than viewing fandoms as threats and eliciting complete elimination, as an informational autocrat, the CCP recognizes their strategic value for propaganda dissemination. By harnessing fans' devotion to their celebrities and mobilization capabilities, the regime innovates its propaganda apparatus to capture attention in the fragmented digital media environment. Similar to the cultural governance strategies to actively mobilize popular culture for its political purposes (Perry, 2017; Zou, 2019), the co-optation of fandom power into propaganda indicates the innovation and reconfiguration of the authoritarian propaganda apparatus to capture attention in the digital era. The co-

optation of fans, who are civil society actors, also speaks to the broader authoritarian politics literature that the state cultivates civil society forces to strengthen state capacity and exert informal control (Mattingly, 2020). Findings in the Chinese context also speak to the current practices of co-opting non-state actors in other informational autocracies (Loh, 2023; Shadijanova, 2022).

However, the performative propaganda engagement also represents a more fragile and potentially counterproductive form of control. While China's comprehensive information control system successfully creates structural incentives for engagement, the selective nature of fan engagement illuminates key limitations. The finding that fans selectively engage with high-salience political content while avoiding routine policy posts suggests they are optimizing for social media visibility. In other words, high engagement metrics for state propaganda may mask underlying resistance or the instrumental use of state messaging, as described by Fan ID19:

Considering those programs produced by the CCTV [The central television station in China] that utilize the popularity of stars to promote rural revitalization or economic development. This is a very positive and proactive way (to promote these messages). However, the impact of fans reposting, liking, and commenting on these programs on the actual promotion of policies is questionable. Instead of relying on a few stars to create a false sense (of impact), it would be better to focus on improving the content of the programs themselves.

Understanding Fans Political Engagement in Authoritarian Contexts

As Cayari (2020) emphasizes, “everyone is a fan of something.” While fandom has become a force for online activism and political mobilization in the global context (Dimitrov, 2008; Jenkins, 1992, 2006; Kanozia & Ganghariya, 2021), this paper shows how fans in authoritarian context may engage with politics in different ways. While celebrity endorsements and fandom engagement may occur in both democratic and authoritarian settings, the ubiquitous digital repression and political constraints in authoritarian systems like China limit fandom's political engagement. Instead, these political contexts motivate fans to emphasize official recognition for celebrity's resources and engage with state propaganda to support celebrity's success, which aligns with previous findings that fans in China co-opt state narratives and political means for their own purposes (Liu, 2019; Wang, 2024; Wang & Luo, 2023; Zhang, 2024).

Findings of this research also posit fans' online activities into a multilateral and multi-directional view with consideration of different actors, including the celebrity, the state, and the media platform. Regarding the relationship between fans and their celebrity, findings in this research echo previous psychological studies on how fans form a parasocial or parakin relationship with their celebrities and support their success by all means (Yan & Yang, 2021; Yen & Li, 2021). However, different from prior research, this research focuses on the promotion of state propaganda, which is not commercial-driven content but engaging state actors in message production. Through propaganda engagement, fans actively push themselves to engage with political and social issues when worshipping their celebrities and become more alike fandom publics who participate in discussions around public issues and perform public duty through their fan acts (Zhang, 2016). As celebrities and their companies also closely monitor their fans' activities, fans' performative propaganda engagement may also influence how celebrities decide their own engagement with state propaganda. These shed light on future research to discover the multidimensional interactions among different actors to understand fan behaviors, especially fans' interactions with the state.

Limitations and Future Research

This research yields several limitations. First, the quantitative analysis only focuses on how fans engage with propaganda disseminated by one central state media outlet (*People's Daily*), without considering other central-level or local-level state propaganda outlets in China. For example, local-level state media can also indenture celebrities to promote local policies and measures. Additionally, this study only examines one social media platform (Weibo). As the Chinese state has been leveraging various social media platforms (e.g., Douyin, Bilibili) to promote its propaganda, it is unclear whether fans may performatively engage with state propaganda on other platforms. Findings of this study are derived from a single national context but can be tested in other authoritarian settings.

Second, the analysis of online fan activities has several limitations. First, this study only considers the propaganda engagement of fans who actively present online and contribute to metrics work, which limits the generalizability of the findings to other fans (e.g., those who do not clearly indicate their fan identity in their accounts) but remain loyal to their celebrities. Future studies should diversify the types of fans to further theorize the phenomenon. Additionally, although the additional small-sample analysis did not detect any bots, this study cannot rule out the potential influence of state-sponsored bots and trolls if they seamlessly disguise their propaganda promotion as fan activities. Future research can employ more advanced bot detection tools to eliminate the influence of bots and compare fans' engagement with other audiences or trolls.

Third, the analysis also focuses on fans of entertainment celebrities in Greater China, who actively engage in metrics work, potentially limiting generalizability to other fan types or cultural product fandoms. State and platform regulations may also affect fans who follow overseas celebrities but do most of their metrics work on Weibo, which may trigger them to engage with state propaganda with similar or different motivations. As fandoms of other cultural products such as ACGN (anime, comic, game, and light novel) and virtual reality also attract many followers on social media (Yin & Xie, 2018), more research could be done on these different types of fandoms and see if members of these fandoms also performatively engage with state propaganda in similar or different ways.

Theoretically, this study does not offer a fully developed theory of fan-propaganda engagement, lacking adequate comparisons between different types of fan engagement or between fans and other audience types' propaganda engagement. This study serves as a starting point for theorizing how digital propaganda operates through non-state agents, pointing toward future research with more theory-building. Future studies can replicate the quantitative analysis in this study using more propaganda outlets, social media platforms, and national contexts to test whether celebrity fans performatively engage with state propaganda in different contexts. Through experimental or longitudinal designs, future research can also test whether fans have shifted their attitudes toward the state propaganda and the state policy after their performative propaganda engagement.

Notes

1. Weibo designed its own Sunshine Credit Score system that evaluates the creditworthiness of users based on their online behavior and interactions within the platform. Each user is measured by scores in five dimensions: 1) content creation, which is calculated based on the frequency of Weibo use, posting behaviors, and metrics of posts; 2) user identity, which is determined by the user's offline education and online real-name verification; 3) credit history, which is determined by the user's long-term Weibo use behaviors; 4) social relationship, which is determined by their following relationships; 5) consumption tendency. In measuring credit history, the key measurement is how users post and behave on Weibo in a "positive" and "healthy" manner.
2. Excessive metrics work in all forms is among the primary targets of the Qinglang campaign. The Chinese state has been deleting posts, banning users for over-commenting, and implementing other corrective measures to discourage fans' metrics work. See more from: http://www.xinhuanet.com/politics/2021-06/15/c_1127564199.htm
3. See: <https://github.com/dataabc/weibo-crawler>
4. Admittedly, some fans may choose not to display their fandom status in their profile information. However, this likelihood is low among those engaged in metrics work, as omitting such information diminishes the effectiveness of boosting a celebrity's visibility and complicates management by fandoms. While fans may follow multiple celebrities, they often create separate accounts to support each one rather than using a single account for multiple fandoms, in order to avoid conflicts or criticism from other members.
5. The 52 participants not included are fans of celebrities from South Korea, Japan, Thailand, and the United States.

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References

- Adena, M., Enikolopov, R., Petrova, M., Santarosa, V., & Zhuravskaya, E. (2015). Radio and the rise of the nazis in prewar Germany. *The Quarterly Journal of Economics*, 130(4), 1885–1939. <https://doi.org/10.1093/qje/qjv030>
- Andrejevic, M. (2008). Watching television without pity: The productivity of online fans. *Television & New Media*, 9(1), 24–46. <https://doi.org/10.1177/1527476407307241>
- Barber, B., & Miller, C. (2019). Propaganda and combat motivation: Radio broadcasts and German soldiers' performance in world war ii. *World Politics*, 71(3), 457–502. <https://doi.org/10.1017/S0043887118000345>
- Beskow, D. M., & Carley, K. M. (2019). Its all in a name: Detecting and labeling bots by their name. *Computational and Mathematical Organization Theory*, 25, 24–35. <https://doi.org/10.1007/s10588-018-09290-1>
- Bleck, J., & Michelitch, K. (2017). Capturing the airwaves, capturing the nation? A field experiment on state-run media effects in the wake of a coup. *The Journal of Politics*, 79(3), 873–889. <https://doi.org/10.1086/690616>
- Blumler, J. G., & Katz, E. (1974). *The uses of mass communications: Current perspectives on gratifications research*. Sage Annual Reviews of Communication Research Volume III.
- Bolsover, G. (2017). Computational propaganda in China: An alternative model of a widespread practice.
- Bolsover, G., & Howard, P. (2019). Chinese computational propaganda: Automation, algorithms and the manipulation of information about Chinese politics on twitter and weibo. *Information, Communication & Society*, 22(14), 2063–2080. <https://doi.org/10.1080/1369118X.2018.1476576>
- Boorstin, D. J. (1992). *The image: A guide to pseudo-events in America*. Vintage.
- Brady, A.-M. (2009). *Marketing dictatorship: Propaganda and thought work in contemporary China*. Rowman & Littlefield Publishers.
- Brough, M. M., & Shresthova, S. (2012). Fandom meets activism: Rethinking civic and political participation. *Transformative Works and Cultures*, 10. <https://doi.org/10.3983/twc.2012.0303>
- Bucher, T. (2017). The algorithmic imaginary: Exploring the ordinary affects of facebook algorithms. *Information, Communication & Society*, 20(1), 30–44. <https://doi.org/10.1080/1369118X.2016.1154086>
- Burke, M., & Kraut, R. E. (2016). The relationship between facebook use and well-being depends on communication type and tie strength. *Journal of Computer-Mediated Communication*, 21(4), 265–281. <https://doi.org/10.1111/jcc4.12162>
- Carter, E. B., & Carter, B. L. (2023). *Propaganda in autocracies: Institutions, information, and the politics of belief*. Cambridge University Press.
- Cayari, C. (2020). Fanception and musical fan activity on YouTube. In Waldron J. L., Horsley S., & Veblen K. K. (Eds.) *The Oxford Handbook of Social Media and Music Learning*. (pp. 394–415). Oxford Handbooks.
- Chen, D., & Gao, G. (2022). Chinese celebrities' political signalling on sina weibo. *The China Quarterly*, 254, 1–18. <https://doi.org/10.1017/S0305741022001734>
- Chen, D., & Gao, G. (2025). How Chinese celebrities are amplifying official policy on Taiwan, pushing “One China” messages to millions of fans online. *The Conversation*. <https://theconversation.com/how-chinese-celebrities-are-amplifying-official-policy-on-taiwan-pushing-one-china-messages-to-millions-of-fans-online-190308>
- Chen, Y. (2021). *People's daily: Fixing the chaos in the “Fan Circle,” makes cyberspace clearer*. Retrieved September 13, 2021, from <http://www.chinanews.com/gn/2021/08-12/9541560.shtml>
- Chen, Y., & Yang, D. Y. (2019). The impact of media censorship: 1984 or brave new world? *American Economic Review*, 109(6), 2294–2332. <https://doi.org/10.1257/aer.20171765>
- Chu, H. (2018). *Idol producer”: The illusory bubble of idol industry, or the myth of ordinary people counterattack*. Retrieved September 13, 2021, from <http://www.thepaper.cn/baidu.jsp?contid=2062857>

- Cotter, K. (2019). Playing the visibility game: How digital influencers and algorithms negotiate influence on Instagram. *New Media & Society*, 21(4), 895–913. <https://doi.org/10.1177/1461444818815684>
- Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.
- Cunningham, S., & Craig, D. (2017). Being ‘really real’ on YouTube: authenticity, community and brand culture in social media entertainment. *Media International Australia*, 164(1), 71–81. <https://doi.org/10.1177/1329878X17709098>
- Dalrymple, K. E., & Scheufele, D. A. (2007). Finally informing the electorate? How the internet got people thinking about presidential politics in 2004. *Harvard International Journal of Press/Politics*, 12(3), 96–111. <https://doi.org/10.1177/1081180X07302881>
- Dimitrov, R. (2008). Gender violence, fan activism and public relations in sport: The case of “footy fans against sexual assault”. *Public Relations Review*, 34(2), 90–98. <https://doi.org/10.1016/j.pubrev.2008.03.002>
- Earl, J., Maher, T. V., & Pan, J. (2022). The digital repression of social movements, protest, and activism: A synthetic review. *Science Advances*, 8(10), eabl 8198. <https://doi.org/10.1126/sciadv.abl8198>
- Enikolopov, R., & Petrova, M. (2015). Media capture: Empirical evidence. In Anderson S. P., Waldfoegel J., & Strömberg D. (Eds.), *Handbook of media economics* (Vol. 1, pp. 687–700). Elsevier.
- Fang, K., & Repnikova, M. (2018). Demystifying “little pink”: The creation and evolution of a gendered label for nationalistic activists in China. *New Media & Society*, 20(6), 2162–2185. <https://doi.org/10.1177/1461444817731923>
- Ferrara, E., Varol, O., Davis, C., Menczer, F., & Flammini, A. (2016). The rise of social bots. *Communications of the ACM*, 59(7), 96–104. <https://doi.org/10.1145/2818717>
- Fiske, J. (2010). *Television culture*. Routledge.
- Fletcher, R., & Nielsen, R. K. (2017). Are news audiences increasingly fragmented? A cross-national comparative analysis of cross-platform news audience fragmentation and duplication. *Journal of Communication*, 67(4), 476–498. <https://doi.org/10.1111/jcom.12315>
- Fung, A. Y. (2009). Fandom, youth and consumption in China. *European Journal of Cultural Studies*, 12(3), 285–303. <https://doi.org/10.1177/1367549409105365>
- Gabbatt, A. (2018). The Taylor Swift effect: Nashville sounds off on singer’s political endorsements. *The guardian*. Guardian News; Media. <https://www.theguardian.com/music/2018/oct/12/taylor-swift-democrats-midterm-election-celebrity-political-endorsements>
- Gao, G., & Chen, D. (2024). Fan engagement with Chinese celebrities’ political signaling on Weibo. *Journal of Contemporary China*, 34(155), 1–21. <https://doi.org/10.1080/10670564.2024.2389249>
- Global Times. (2021). C-pop star Zhang Yixing becomes public ambassador for tax service after a series of tax evasion scandals of Chinese celebrities. *Global Times*. <https://www.globaltimes.cn/page/202112/1243150.shtml>
- Guriev, S., & Treisman, D. (2019). Informational autocrats. *Journal of Economic Perspectives*, 33(4), 100–127. <https://doi.org/10.1257/jep.33.4.100>
- Hall, S. (1973). Encoding and decoding in the television discourse. In *CCCS selected working papers*. (pp. 402–414). Routledge.
- Harris, C. D. (1992). *Social identity, class and empowerment: Television fandom and advocacy*. University of Massachusetts Amherst.
- Horton, D., & Richard Wohl, R. (1956). Mass communication and para-social interaction: Observations on intimacy at a distance. *Psychiatry*, 19(3), 215–229. <https://doi.org/10.1080/00332747.1956.11023049>
- Huang, H. (2015). Propaganda as signaling. *Comparative Politics*, 47(4), 419–444. <https://doi.org/10.5129/001041515816103220>
- Huang, H. (2018). The pathology of hard propaganda. *The Journal of Politics*, 80(3), 1034–1038. <https://doi.org/10.1086/696863>
- Jeffreys, E., & Xu, J. (2022). Indenturing celebrity: Governing China’s entertainment industries. *Modern China*, 49(5), 564–588. <https://doi.org/10.1177/00977004221133533>
- Jenkins, H. (1992). *Textual poachers: Television fans and participatory culture*. Routledge.

- Jenkins, H. (2006). *Convergence culture. Where old and new media collide*. New York University Press.
- Jensen, J. (2002). Fandom as pathology: The consequences of characterization. In Lewis L. A. (Ed.), *The adoring audience* (pp. 9–29). Routledge.
- Jowett, G. S., & O'donnell, V. (2018). *Propaganda & persuasion*. Sage Publications.
- Kanozia, R., & Ganghariya, G. (2021). More than k-pop fans: BTS fandom and activism amid COVID-19 outbreak. *Media Asia*, 48(4), 338–345. <https://doi.org/10.1080/01296612.2021.1944542>
- Katz, E. (1957). The two-step flow of communication: An up-to-date report on an hypothesis. *Public Opinion Quarterly*, 21(1), 61–78. <https://doi.org/10.1086/266687>
- King, G., Pan, J., & Roberts, M. E. (2013). How censorship in China allows government criticism but silences collective expression. *American Political Science Review*, 107(2), 326–343. <https://doi.org/10.1017/S0003055413000014>
- King, G., Pan, J., & Roberts, M. E. (2017). How the Chinese government fabricates social media posts for strategic distraction, not engaged argument. *American Political Science Review*, 111(3), 484–501. <https://doi.org/10.1017/S0003055417000144>
- Lasswell, H. D. (1927). The theory of political propaganda. *American Political Science Review*, 21(3), 627–631. <https://doi.org/10.2307/1945515>
- Li, Y., Liu, D., & Shao, L. (2024). Propaganda with subculture: A resource for internet control in China. *Journal of Chinese Political Science* 30, 449–473. <https://doi.org/10.1007/s11366-024-09897-z>
- Little, A. T. (2017). Propaganda and credulity. *Games and Economic Behavior*, 102, 224–232. <https://doi.org/10.1016/j.geb.2016.12.006>
- Liu, H. (2019). Love your nation the way you love an idol: New media and the emergence of fandom nationalism. In H. Liu (Ed.), *From cyber-nationalism to fandom nationalism* (pp. 125–147). Routledge.
- Loh, M. (2023). Meet north korea's youtubers, who go fishing, eat ice cream, and gush about “harry potter” to fuel kim jong un's propaganda machine. *Business insider*. Business Insider. <https://www.businessinsider.com/north-korea-youtubers-propaganda-sogwang-kim-jong-un-2023-2>
- Lowenstein, A. (2022). The American PR firm helping Saudi Arabia clean up its image. *The guardian*. <https://www.theguardian.com/world/2022/dec/22/edelman-saudi-arabia-pr-image>
- Lu, Y., & Pan, J. (2021). Capturing clicks: How the Chinese government uses clickbait to compete for visibility. *Political Communication*, 38(1–2), 23–54. <https://doi.org/10.1080/10584609.2020.1765914>
- Lu, Y., & Pan, J. (2022). The pervasive presence of Chinese government content on douyin trending videos *Computational Communication Research*. 4(1), 68–97. <https://doi.org/10.5117/CCR2022.2.002.LU>
- Lu, Y., Pan, J., Xu, X., & Xu, Y. (2025). Decentralized propaganda in the era of digital media: The massive presence of the Chinese state on douyin. *American Journal of Political Science*, 1–17. <https://doi.org/10.1111/ajps.12990>
- Lueck, J. A. (2015). Friend-zone with benefits: The parasocial advertising of kim kardashian. *Journal of Marketing Communications*, 21(2), 91–109. <https://doi.org/10.1080/13527266.2012.726235>
- Lynch, K. S. (2022). Fans as transcultural gatekeepers: The hierarchy of BTS' anglophone Reddit fandom and the digital east-west media flow. *New Media & Society*, 24(1), 105–121. <https://doi.org/10.1177/1461444820962109>
- Majic, S., O'Neill, D., & Bernhard, M. (2020). Celebrity and politics. *Perspectives on Politics*, 18(1), 1–8. <https://doi.org/10.1017/S1537592719004602>
- Marwick, A. E., & Boyd, D. (2011). I tweet honestly, I tweet passionately: Twitter users, context collapse, and the imagined audience. *New Media & Society*, 13(1), 114–133. <https://doi.org/10.1177/1461444810365313>
- Mattingly, D. C. (2020). *The art of political control in China*. Cambridge University Press.
- Mattingly, D. C., & Yao, E. (2022). How soft propaganda persuades. *Comparative Political Studies*, 55(9), 1569–1594. <https://doi.org/10.1177/00104140211047403>
- McAdam, D. (1999). *Political process and the development of black insurgency, 1930-1970*. University of Chicago Press.

- Neuman, W. R. (2016). *The digital difference: Media technology and the theory of communication effects*. Harvard University Press.
- Pan, J., Shao, Z., & Xu, Y. (2021). How government-controlled media shifts policy attitudes through framing. *Political Science Research and Methods*, 10(2), 1–16. <https://doi.org/10.1017/psrm.2021.35>
- Peisakhin, L., & Rozenas, A. (2018). Electoral effects of biased media: Russian television in Ukraine. *American Journal of Political Science*, 62(3), 535–550. <https://doi.org/10.1111/ajps.12355>
- Peng, P. (2021). Weibo takes down “star power list,” when will the chaos in fandom end? *Jiemian*. <https://www.jiemian.com/article/6456822.html>
- Perry, E. J. (2017). Cultural governance in contemporary China: “Re-orienting” party propaganda. In Shue V. & Thornton P. M. (Eds.) *To Govern China: Evolving Practices of Power*. Cambridge University Press. 29–55.
- Qin, B., Strömberg, D., & Wu, Y. (2018). Media bias in China. *American Economic Review*, 108(9), 2442–2476. <https://doi.org/10.1257/aer.20170947>
- Roberts, M. E. (2018). *Censored: Distraction and diversion inside China’s Great Firewall*. Princeton University Press.
- Sandvoss, C., Gray, J., & Harrington, C. L. (2017). Introduction. Why still study fans?. In Sandvoss, C., Gray, J., & Harrington, C. L. (Eds.) *Fandom: Identities and communities in a mediated world*, (2nd ed.). New York University Press.
- Shadijanova, D. (2022). Pro-war memes, z symbols and blue and yellow flags: Russian influencers at war. *The guardian*. <https://www.theguardian.com/media/2022/apr/23/z-symbols-pro-war-memes-ukrainian-flags-russian-influencers-ukraine>
- Stockmann, D. (2013). *Media commercialization and authoritarian rule in China*. Cambridge University Press.
- Sullivan, J., & Kehoe, S. (2019). Truth, good and beauty: The politics of celebrity in China. *The China Quarterly*, 237, 241–256. <https://doi.org/10.1017/S0305741018001285>
- Svolik, M. W. (2012). *The politics of authoritarian rule*. Cambridge University Press.
- Tolbert, C. J., & McNeal, R. S. (2003). Unraveling the effects of the internet on political participation? *Political Research Quarterly*, 56(2), 175–185. <https://doi.org/10.1177/106591290305600206>
- Wan, H., Luo, M., Ma, Z., Dai, G., & Zhao, X. (2025). How do social bots participate in misinformation spread? A comprehensive dataset and analysis. *Proceedings of the 2025 Conference on Empirical Methods in Natural Language Processing (EMNLP)*. Suzhou, China. (pp. 31481–31504). <https://aclanthology.org/2025.emnlp-main.1604/>
- Wang, E. N. (2024). Participatory censorship with illusory empowerment: Algorithmic folklore and interpretive labor beyond fandom. *Social Media+ Society*, 10(4), 20563051241295800. <https://doi.org/10.1177/20563051241295800>
- Wang, Y., & Luo, T. (2023). Politicizing for the idol: China’s idol fandom nationalism in pandemic. *Information, Communication & Society*, 26(2), 304–320. <https://doi.org/10.1080/1369118X.2022.2161827>
- Wedeen, L. (1998). Acting “as if”: Symbolic politics and social control in Syria. *Comparative Studies in Society and History*, 40(3), 503–523. <https://doi.org/10.1017/S0010417598001388>
- Woolley, S. C., & Howard, P. N. (2017). Computational propaganda worldwide: Executive summary. Computational Propaganda Project.
- Wu, J., Li, S., & Wang, H. (2019). From fans to “little pink”: The production and mobilization mechanism of national identity under new media commercial culture. In Liu H. (Ed.) *From cyber-nationalism to fandom nationalism* (pp. 32–52). Routledge.
- Wu, Y., Fang, Y., Shang, S., Jin, J., Wei, L., & Wang, H. (2021). A novel framework for detecting social bots with deep neural networks and active learning. *Knowledge-Based Systems*, 211, 106525. <https://doi.org/10.1016/j.knsys.2020.106525>
- Xu, J., Qu, L., & Zhang, G. (2022). Governing social eating (chibo) influencers: Policies, approach and politics of influencer governance in China. *Policy & Internet*, 14(3), 525–540. <https://doi.org/10.1002/poi3.318>
- Xu, J., & Yang, L. (2025). Celebrity public relations in China: Power, politics and pop propaganda. *The China Quarterly*, 1–16. <https://doi.org/10.1017/S0305741024001589>

- Yan, Q., & Yang, F. (2021). From parasocial to parakin: Co-creating idols on social media. *New Media & Society*, 23(9), 2593–2615. <https://doi.org/10.1177/1461444820933313>
- Yanagizawa-Drott, D. (2014). Propaganda and conflict: Evidence from the Rwandan genocide. *The Quarterly Journal of Economics*, 129(4), 1947–1994. <https://doi.org/10.1093/qje/qju020>
- Yang, K.-C., Varol, O., Hui, P.-M., & Menczer, F. (2020). Scalable and generalizable social bot detection through data selection. *Proceedings of the AAAI Conference on Artificial Intelligence*. New York, USA (Vol. 34. pp. 1096–1103).
- Yao, L. (2023). *Popular propaganda in pop culture: How China sells its ideology*. Columbia University.
- Yen, K. K., & Li, L. S. (2021). Social network sites usage and idol emulation: Indirect effect of parasocial interaction. *Psychological Studies*, 66(4), 463–470. <https://doi.org/10.1007/s12646-021-00630-x>
- Yin, Y. (2020). An emergent algorithmic culture: The data-ization of online fandom in China. *International Journal of Cultural Studies*, 23(4), 475–492. <https://doi.org/10.1177/1367877920908269>
- Yin, Y., & Xie, Z. (2018). The bounded embodiment of fandom in China: Recovering shifting media experiences and fan participation through an oral history of animation-comics-games lovers. *International Journal of Communication*, 12, 3317–3334.
- Zell, A. L., & Moeller, L. (2018). Are you happy for me . . . on facebook? The potential importance of “likes” and comments. *Computers in Human Behavior*, 78, 26–33. <https://doi.org/10.1016/j.chb.2017.08.050>
- Zhang, Q., & Negus, K. (2020). East Asian pop music idol production and the emergence of data fandom in China. *International Journal of Cultural Studies*, 23(4), 493–511. <https://doi.org/10.1177/1367877920904064>
- Zhang, W. (2016). *The internet and new social formation in China: Fandom publics in the making*. Routledge.
- Zhang, W. (2024). The 30 years of China’s online fandom. *Communication and the Public*, 9(4), 421–425. <https://doi.org/10.1177/20570473241270576>
- Zhang, Y., Huang, S., & Li, T. (2023). ‘Push-and-pull’for visibility: How do fans as users negotiate over algorithms with Chinese digital platforms? *Information, Communication & Society*, 26(2), 321–339. <https://doi.org/10.1080/1369118X.2022.2161829>
- Zhu, Y., & Fu, K. (2024). How propaganda works in the digital era: Soft news as a gateway. *Digital Journalism*, 12(6), 753–772. <https://doi.org/10.1080/21670811.2022.2156366>
- Zou, S. (2019). When nationalism meets hip-hop: Aestheticized politics of ideotainment in China. *Communication and critical/Cultural Studies*, 16(3), 178–195. <https://doi.org/10.1080/14791420.2019.1637008>

Zou, S. (2023). Restyling propaganda: Popularized party press and the making of soft propaganda in China. *Information, Communication & Society*, 26(1), 201–217. <https://doi.org/10.1080/1369118X.2021.1942954>

Appendix

A1. High-influence celebrities

Chinese online celebrities were routinely ranked by their social media popularity on the platform via the Star Power List (明星势力榜 in Chinese). Star Power List was an embedded page on Weibo that scored the popularity of celebrities by five dimensions: number of readers (阅读人数 in Chinese), number of interactions (互动数 in Chinese), social influence (社会影响力 in Chinese), admiration value (爱慕值 in Chinese), and positive energy value (正能量值 in Chinese). As shown in Figure A1, Star Power List consisted of different sub-lists where celebrities were ranked by their region of origin (Panel A). Each sub-list showed the top 10 celebrities and their total scores, and the top three celebrities were pinned to the top of the sub-list (Panel B). The detailed scores of the five dimensions could be found by clicking on each celebrity name or avatar (Panel C). From 2014 to 2021, the Star Power List acted as a crucial measurement for quantifying the influence and commercial value of celebrities in China (Peng, 2021).

To determine the most influential celebrities on Weibo, I collected three sub-lists of the Star Power List from December 2019 to June 2020: Mainland Sub-list (内地榜 in Chinese) to capture top stars in mainland China, Hong Kong/Macao/Taiwan Sub-list (港澳台榜 in Chinese) to capture top stars in the Greater China area, and the Rising Star Sub-list (新星榜 in Chinese) to capture the most popular rising stars. In total, I identified 115 *high-influence celebrities*. Most had more than five million followers on Weibo.



Figure A1. The Star Power List on Weibo.

For each of the 115 celebrities, I searched for the official fan club (后援会 in Chinese) account on Weibo; having such a fan club is an indicator of an organized and mature fandom. I also searched for any metrics team (数据组 in Chinese) account or other metrics-work-related account (e.g., the fan station account that is used for metrics work, 数据站 in Chinese) with each celebrity's name. The presence of such accounts indicates the commitment of a fandom into metrics work. Then, I excluded celebrities from the list of 115 based on the following criteria:

- (1) Celebrities with no fan club account, indicating a lack of organization.
- (2) Celebrities with no metrics-work-related account, indicating a lack of commitment to metrics work.
- (3) Celebrities who originated from other countries, even if they are developing their career in the Greater China area (e.g., JJ Lin, a Singaporean singer captured by the Hong Kong/Macau/Taiwan sub-list for his achievements in Taiwan), as they may be inherently less incentivized to support Chinese state propaganda.
- (4) Celebrities who were active when I collected the Star Power List but later banned by the state (e.g., Kris Wu, a top singer who was arrested by the state in 2021).

The resulting list consisted of 96 high-influence celebrities from the Greater China area.

A2. Example celebrity-signaling post



Figure A2. Example celebrity-signaling post by *People's Daily*.

This post shows an example of celebrity-signaling posts created by *People's Daily* on Weibo. In commemoration of the 100th CCP Anniversary, the Chinese government organized a mass gala featuring performances by over 90 celebrities. One such post, created on July 1, 2021, showcased three top stars performing the song “Walk With Me”: Yibo Wang (with 40 million fans on Weibo), Junkai Wang (with 80 million fans), and Yuan Wang (with 84 million fans) at the gala, as depicted in [Figure A2](#). This post received substantial engagement on Weibo, accumulating more than 813 thousand likes, 34 thousand forwards, and 491 thousand forwards.

A3. Robustness check of quantitative comment analysis

As a robustness check, for each celebrity-signaling post, I included 20 posts published before and 20 posts published after, resulting in a set of 41 posts (including the signaling post) per instance ($T = -20, -9, \dots, 0, \dots, 9, 20$). This yielded a corpus of 1,599 posts (39 celebrity-signaling + 1,560 non-signaling). Two human coders manually identified whether each of the 15,990 comment was made by a fan account of the signaled celebrity or celebrities at $T=0$ based on account name, verification status, description, avatar, and Weibo homepage background image. Then, I replicated the descriptive analysis and Wilcoxon signed-rank test with Bonferroni correction for this robustness check.

The findings remain robust when the adjacent window is expanded to 20. [Figure A3](#) shows that, on average, fans made approximately 62% of the top comments under celebrity-signaling

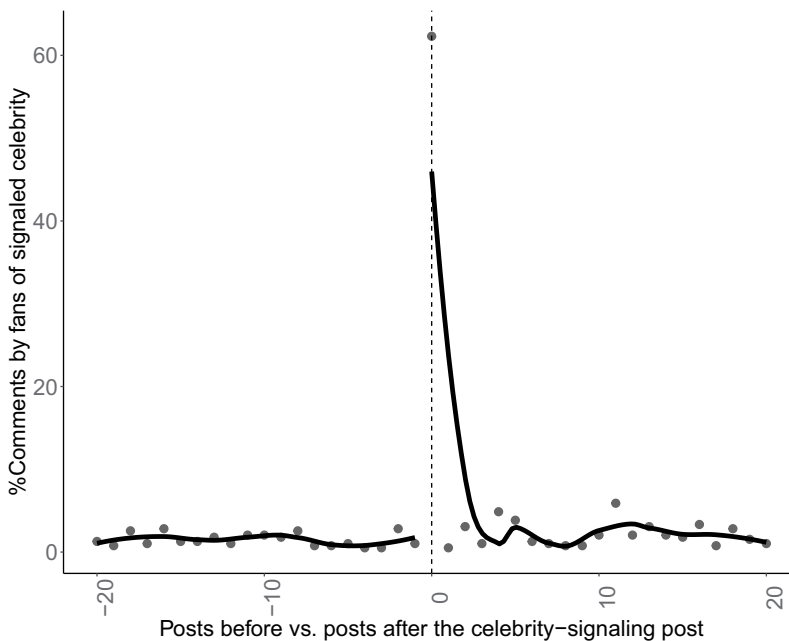


Figure A3. Average rate of fan comments at time T (Window = 20).

propaganda posts ($T=0$). In contrast, the average proportion of fan comments remained below 6% among posts created before and after the celebrity-signaling posts. Still, 37 out of 39 Wilcoxon signed-rank tests show that the median proportion of fan-made comments in the surrounding comparison posts is significantly lower than that in the celebrity-signaling post.

A4 Investigation of bot activities

From 216 unique fan accounts identified through quantitative comment analysis, I randomly sampled 10% (20 accounts) to determine whether each is a bot account. Following previous studies in communication and computer science on bot detection (Beskow & Carley, 2019; Bolsover & Howard, 2019; Ferrara et al., 2016; Wan et al., 2025; Wu et al., 2021; Yang et al., 2020), I examined the accounts and their activities on Weibo and labeled them as bot accounts if they satisfied any of the following criteria:

- (1) **Bot-like metadata:** The account has incomplete (e.g., nickname, avatar, user description) or abnormal profile information (e.g., random strings as profile names).
- (2) **Unusual ratio of followers to followings:** The account follows more than ten times as many accounts as it has followers.
- (3) **Extremely low post engagement:** More than 80% of the account's most recent 20 posts have low engagement (likes, comments, retweets).
- (4) **Extremely high ratio of fast retweets:** More than 80% of the account's most recent 20 posts are fast retweets without any new information added.
- (5) **Extremely high frequency of posting:** The account posts more than 50 posts per day.
- (6) **Extremely high frequency of same content:** More than 80% of the account's most recent 20 posts have the same content.
- (7) **No bot warning from Weibo:** The account does not have any labels or warnings indicating it is a bot account by Weibo.

A5 Additional information of qualitative interviews

A5.1 Interviewee sampling

The interviewees were recruited from Weibo. For each of the 160 fans of celebrities who originated from the Greater China, I checked their major fandom-purpose Weibo accounts and eliminated those who did not meet the following criteria:

- (1) They used Weibo as their main platform for metrics work.
- (2) They actively engaged in metrics work for their celebrities on Weibo for more than 6 months in 2021 or 2023.
- (3) They followed at least five fans from the same fandom on Weibo.
- (4) They were at least 18 years old.

Then, I applied stratified purposive sampling to sample fans with three strata for interview:

- (1) **Number of account followers**, indicating the influence of the fan account.
- (2) **Account verification status**, whether verified as a lead metrics-work fan (Yellow V with fan-related identification) or as an ordinary fan.
- (3) **Affiliated fandom**, for representation from multiple fandoms.

After filtering and sampling, I replied to 29 fans of celebrities who originated from Greater China. 21 fans of 20 celebrity fandoms ultimately participated in interviews.

A5.2 Basic information for fandom interviewees

Table A1. Basic information for fandom interviewees

Fan ID	Age	Sex	Celebrity ID	Celebrity domain	Account verification	Length of fan dedication	Lead metrics- work fan
1	26	F	Celebrity 1	Idol	No	7 years	Yes
2	23	F	Celebrity 1	Idol	Yes	4 years	Yes
3	25	F	Celebrity 2	Singer	Yes	15 years	No
4	28	F	Celebrity 3	Idol	Yes	3 years	No
5	22	F	Celebrity 4	Singer	Yes	4 years	Yes
6	22	F	Celebrity 5	Idol	Yes	2 years	No
7	20	F	Celebrity 6	Idol	No	2 years	No
8	22	F	Celebrity 7	Idol	Yes	8 months	Yes
9	20	F	Celebrity 8	Idol	Yes	2 years	No
10	45	F	Celebrity 9	Idol	No	3 years	No
11	18	F	Celebrity 10	Idol	No	5 years	No
12	23	F	Celebrity 11	Actor/Actress	Yes	2 years	No
13	22	F	Celebrity 12	Actor/Actress	No	4 years	No
14	24	F	Celebrity 13	Singer	Yes	7 years	No
15	23	F	Celebrity 14	Singer	Yes	5 years	No
16	20	F	Celebrity 15	Actor/Actress	Yes	3 years	No
17	21	F	Celebrity 16	Actor/Actress	No	10 years	Yes
18	24	F	Celebrity 17	Actor/Actress	Yes	10 months	No
19	21	F	Celebrity 18	Singer	No	3 years	No
20	21	F	Celebrity 19	Idol	No	3 years	No
21	24	F	Celebrity 20	Actor/Actress	No	7 months	No