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ARTICLE

Decentralized propaganda in the era of digital media: The massive presence of the Chinese state on Douyin

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Abstract

The rise of social media in the digital era poses unprecedented challenges to authoritarian regimes that aim to influence public attitudes and behaviors. To address these challenges, we argue that authoritarian regimes have adopted a decentralized approach to produce and disseminate propaganda on social media. In this model, tens of thousands of government workers and insiders are mobilized to produce and disseminate propaganda, and content flows in a multidirectional, rather than a top-down manner. We empirically demonstrate the existence of this new model in China by creating a novel data set of over five million videos from over 18,000 regime-affiliated accounts on Douyin, a popular social media platform in China. This paper supplements prevailing understandings of propaganda by showing theoretically and empirically how digital technologies are transforming not only the content of propaganda, but also how propaganda materials are produced and disseminated.

Digital media hinders the ability of authoritarian regimes to reach broad audiences. Although digital media—platforms, websites, electronic devices—has enabled authoritarian regimes to expand the scope and specificity of censorship (King et al., 2013), surveillance (Xu, 2021), and repression (Earl et al., 2022; Gohdes, 2024; Pan et al., 2024), it has resulted in a vast explosion of information that has fragmented audiences into niche online spaces that serve highly specialized interests (Chadwick et al., 2015). For instance, in a group of 100 individuals, each may be immersed in a distinct online world—from politics and powerlifting to cat feeding and coding—therefore, a topic deemed "viral" by one person might go unnoticed by the remaining 99. This means that even high-capacity authoritarian regimes with control over traditional media—for example, state-run television, radio, newspapers—may find it a challenge to reach broad audiences with their propaganda. This challenge of reach cannot be solved by implementing selective censorship (King et al., 2013), having highly influential social media accounts (Woolley, 2022), producing high-quality soft propaganda (Mattingly & Yao, 2022), or controlling ranking and recommendation algorithms (Bolsover & Howard, 2019).

In this paper, we argue that while digital media has weakened the effectiveness of traditional, centralized or top-down, modes of disseminating propaganda to reach broad audiences, it enables a *different propaganda* system—what we call a decentralized propaganda model. Digital media lowers the entry costs of account and content creation, making it

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easier for a wide range of individuals and groups to participate in the dissemination of propaganda. Social media platforms allow for interconnectivity, enabling propagandists to easily source content from one another and ordinary users, lowering the cost of content creation. Platforms also provide instant feedback through metrics such as views and likes, allowing propagandists to quickly identify and amplify the most compelling content and incentivizing some to produce original content that appeals to audiences because metrics serve as social validation. Finally, social media facilitates monitoring in ways that traditional decentralization could not since it removes the need for marketization as an incentive mechanism for content creation and because quantified metrics such as views and likes are publicly visible. However, digital media does not inevitably lead to the decentralization of propaganda. Governments must have both the incentive to reach broad audiences and the capacity to mobilize human resources.

We find evidence of a decentralized propaganda model on Douyin, a short-form video-sharing platform popular in China. Douyin has over 750 million monthly active users as of 2023 and is the fastest growing social media platform in China and in the world.[1] We identify a large number of producers—21,408 accounts affiliated with the Chinese Communist Party (CCP), which includes accounts with access to professional media resources and training (e.g., state-controlled media outlets, propaganda departments) and those without (e.g., firefighters, drug rehabilitation centers, political and legal affairs commissions). These accounts consistently produce a large volume of diverse content—5.14 million videos posted between June 1, 2020, and June 2021 that are rarely copies of each other. The composition of content produced by the decentralized model substantially differs from what is produced by non–regime-affiliated accounts, with nearly 49% of the content dedicated to propaganda, especially content promoting China as a moral society. As expected, information produced by this system does not flow solely from the top down. Instead, bottom-up information flow, where central-level videos originate locally, is the predominant pattern. Finally, engagement is higher for videos where the center has recirculated propaganda content originating from local levels, showing how the decentralized model can generate more compelling content.

This decentralized propaganda model can systematically change content composition and distribution on social media platforms. Censorship and algorithmic promotion are not substitutes for decentralized propaganda; instead, governments can use them in combination to control the digital information environment. Censorship eliminates objectionable content. Decentralized production generates appealing propaganda for fragmented audiences. This high volume of diverse content can then be promoted algorithmically without driving users away from platforms. Although this new propaganda system may not match the scale of private content creators in terms of audience reach, our analysis indicates that it is more effective than simply transplanting a centralized, top-down propaganda system onto social media. This evolution suggests a strategic adaptation of state propaganda to the dynamics of the digital media era.

[1] See https://www.statista.com/statistics/1361354/china-monthly-active-users-of-douyin-chinese-tiktok/ (Accessed March 5, 2024).

GOVERNMENT PROPAGANDA IN THE AGE OF DIGITAL MEDIA

This study examines propaganda systems—system of rules, incentives, and resources designed to control and influence public attitudes, opinions, and behavior—under authoritarian rule, where those in power have control over media and communications. We define propaganda as content produced by such systems with the intent of influencing public attitudes, preferences, and behaviors in favor of the regime. It is important to note that, while the motives of those producing propaganda may vary—such as satisfying superiors or advancing personal careers—the primary aim of messages we consider to be propaganda is to influence the public in favor of the regime. This definition builds on conceptions of propaganda, and information operations more broadly, which involve spreading biased information to shape attitudes, beliefs, or behavior both domestically or across borders (Alizadeh et al., 2020; Starbird et al., 2019). Some scholars offer alternative definitions of propaganda based on source—as everything produced by state media (e.g., Bleck & Michelitch, 2017; Pan et al., 2021). Others define propaganda based on its effects, including its ability to persuade and alter beliefs (Guriev & Treisman, 2022; Mattingly & Yao, 2022; Peisakhin & Rozenas, 2018), as well as its ability to change behavior by signaling power (Carter & Carter, 2021; Huang, 2015, 2018; Little, 2017). We do not define propaganda based on source because it can entail an extremely broad range of content, such that everything becomes propaganda, which muddies the concept. We do not define propaganda based on effect because we do not want to preclude content based on its effectiveness or quality.

This definition of propaganda based on intent means that not everything produced by state media would be considered propaganda. For example, a state-media outlet could report on the weather, broadcast a children's program on insects, or run advertisements to boost local tourism, and as long as these programs are not intended to influence public

attitudes, preferences, and behaviors in favor of the regime, it would not be considered propaganda. Furthermore, it means that not everything produced by a propaganda system is necessarily propaganda. For example, a propaganda system may include incentives that lead those in the system to produce content aimed at capturing attention instead of influencing attitudes or preferences. Under this definition, content created with the sole purpose of capturing public attention would not constitute propaganda.[2]

New challenges for authoritarian information control

Digital media has led to an exponential increase in the number of information sources and amount of information available to audiences. As of the beginning of 2022, it was estimated that digital data had exceeded 44 zettabytes (1 zettabyte has 21 zeros) and that in 2025, each day 463 exabytes (1 exabyte has 18 zeros) of data would be generated (Renieris, 2022). In the era of broadcast media, audiences had a relatively narrow set of media choices. With digital media, consumers face an ultra-high-choice environment, with countless content producers—from well-resources media organizations to ordinary people with a smartphone—competing for limited audience attention (Chadwick, 2017; Fletcher & Nielsen, 2017; Webster & Ksiazek, 2012). Individuals face an abundance of content options and cannot consume all available information, thus, they reside digitally in fragmented communities that fulfill highly specialized interests, consuming narrow slices of available content fueled by recommendation and ranking algorithms (Guess et al., 2023). As a result, the content each person is exposed to can vary dramatically, such that something considered "viral" for one person—meaning it has gained rapid popularity (Goel et al., 2016)—may go entirely unnoticed by others.

The effectiveness of traditional, centralized or top-down, modes of disseminating propaganda has thus been undermined. In the era of broadcast media, authoritarian regimes could effectively disseminate their messages to the broader public and capture public attention by monopolizing the narrow set of media channels through state ownership of media outlets, as well as co-optation and intimidation of media owners and journalists (Bleck & Michelitch, 2017; Enikolopov & Petrova, 2015; McMillan & Zoido, 2004; Qin et al., 2018; Stockmann, 2013). In the era of digital media, state control of the most popular media outlets does not guarantee that a sizable audience may be reached at any given time. For example, the *People's Daily* has over 100 million followers on Sina Weibo, but when a post is made from this account, not all 100 million followers are going to see it. The average number of views any particular piece of content will receive depends on the characteristics of the social media platform (e.g., is it a feed-based social network such as Facebook, an algorithmically driven platform such as TikTok, or messaging-based app such as WhatsApp), audience interest in such content, the attractiveness of the content itself, and the interaction of all these factors (e.g., algorithms on some platforms may make recommendations to certain users based on their prior views and clicks).

The use of alternative content styles, such as "soft propaganda," can make specific pieces of propaganda more appealing in the high-choice digital environment (Mattingly & Yao, 2022). However, this approach does not guarantee that messages will reach a broad audience. To draw an analogy, suppose a piece of soft propaganda is as engaging as a blockbuster action movie. It may appeal to many, but it will not appeal to everyone. Moreover, effective propaganda often requires repeated and continued exposure to achieve its intended impact, rather than relying on a one-shot blockbuster (Jowett & O'donnell, 2018). Consequently, even highly popular social media accounts and slickly produced content cannot consistently guarantee broad audience reach. Censorship is not sufficient for overcoming the challenge of audience fragmentation. Information suppression removes dissenting voices and alternative perspectives (Earl et al., 2022; King et al., 2013; Pan, 2017; Pan & Siegel, 2020). However, autocrats and other political figures often aim to sway public opinion on specific policies or general perceptions of the government and legitimacy (Dukalskis & Gerschewski, 2017; Mattingly & Yao, 2022; Pan et al., 2021), shape public behavior, whether it is to obtain political compliance or mobilize the masses (Huang, 2015; Perry et al., 2020), set the agenda (Scheufele, 2000), or divert public attention (King et al., 2017). In other words, highly effective censorship does not necessarily mean that authoritarian regimes can consistently reach broad audiences to fulfill their goals of proactively directing public attention, shaping preferences, and influencing behaviors.

Finally, controlling or influencing the algorithms used by social media platforms to recommend and rank content cannot address challenge of audience fragmentation (Bolsover & Howard, 2019). If the same state-produced content is algorithmically promoted to all users, many will not engage with it, choosing instead to bypass it by swiping past or reducing their time on the platform to seek more appealing content elsewhere. The diversification and proliferation of content means that it is impossible to compel users to consume the same content, even with algorithmic control.

[2] For examples of state-produced content aimed at capturing or redirecting public attention, see Field et al. (2018) and King et al. (2017).

A decentralized propaganda model

To engage a fragmented audience distributed across online spaces catering to specialized interests, the regime can decentralize propaganda production, dramatically expanding the number of propaganda content producers. Instead of a handful, or even a few hundred, professional, state-controlled media outlets, thousands or tens of thousands of individuals, some of whom have professional media training and access to specialized media equipment and many others who do not, are tasked with creating content. While we expect those in power to set guidelines on content, producers are given a great deal of autonomy in what they can produce. The vast number of producers, each with their own knowledge, expertise, and interests, produces large quantities of content, including content that meets varied audience interests and needs.

A decentralized system is more likely than a centralized system to produce diverse, responsive, and persuasive propaganda content to reach a larger audience because of the autonomy granted to numerous producers. Compared with central principals, local agents are closer to citizens and tend to have values and cultural norms more similar to that of their localities and other communities and to have knowledge more relevant to these communities. This proximity allows them to better understand the preferences and concerns of the local population, giving them a significant information advantage over central propagandists. As a result, local agents can tailor their messaging in ways that resonate more effectively with the citizens, making their content more relatable and appealing. With a large number of local agents with divergent interests, the decentralization of propaganda production is more effective in reaching fragmented audiences.

Decentralization of propaganda existed in the era of traditional media but to a much lesser extent. Principal–agent problems, caused by divergent interests and information asymmetry between managers (principals) and producers (agents), are inherent in decentralized systems and can hinder propaganda efforts. In the traditional media era, the high costs of content production meant that decentralizing production inevitably entailed the commercialization or marketization of media outlets to incentivize producers (Stockmann, 2013). Yet, market competition creates divergent interests between principals and agents, along with difficulties in monitoring, thereby reducing the amount of propaganda produced, even among government-owned outlets (Gehlbach & Sonin, 2014; Qin et al., 2018). The trade-off between incentivizing content creation and overseeing it likely limited the adoption of decentralized propaganda production in the mass media era.

Digital media creates the necessary conditions for decentralized propaganda at scale by (a) lowering the entry costs of account and content creation, (b) easing the process of content sourcing and circulation through interconnectivity, (c) providing incentives for content creation through social validation, and (d) reducing the cost of monitoring at scale. In other words, digital media can help mitigate the trade-off between incentivizing and monitoring content creation, making it possible to decentralize propaganda production at scale.

Cost of entry

Digital media enables decentralized propaganda by significantly lowering the entry costs of account and content creation. New technologies allow virtually anyone, regardless of professional media training or access to professional media equipment, to create social media accounts and generate content, making it easier for a wide range of individuals and groups to participate in the dissemination of propaganda.

In the traditional media era, it was costly to set up a media channel. Broadcasting traditional media required significant infrastructure (e.g., transmission facilities, production studios, satellite uplinks, antennas and transmitters, TV networks) and specialized equipment (e.g., broadcast-quality cameras, nonlinear high-quality microphones and mixing boards, editing systems on desktop computers, lightning and grip equipment, editing decks, take and film equipment). This, in turn, required significant financial investment and trained personnel with expertise in film-making, broadcasting, and editing such as broadcast engineers, production crews, and editors. At most, each propaganda producer would have one TV station, one radio station, and a limited number of newspapers. In the social media era, creating an account or handle on social media is usually free, and a single propaganda producer can easily create and manage dozens of accounts on one or more social media platforms. The powerful cameras and editing software available on smartphones in the digital media era allows anyone to create professional-quality content in multiple modalities (text, audio, visual) that are easy to upload and share. Furthermore, there are many resources that new content creators can draw on (e.g., online tutorials) to quickly learn how to create content on social media platforms, and the proliferation of digital data means that there is an ample supply of material for new content creators to use as inspiration.

Interconnectivity

In the context of social networks, network effects occur when the value of a platform increases as more users join. This leads to market concentration, where

users gravitate toward a few large platforms (e.g., Facebook, Instagram, TikTok, WeChat). These platforms transcend geographical, cultural, and temporal barriers, enabling real-time communication and interaction among millions of individuals, both nationally and globally. This unprecedented level of connectivity allows propagandists to easily source content from each other and from ordinary users. In contrast to the traditional media era, when central propagandists had to send reporters to gather news and propaganda materials—an expensive and time-consuming process—content sourcing and circulation are far more efficient in the social media age.

This high level of connectivity also allows propagandists to gather instant feedback and engagement metrics from audiences, making it much easier to assess the effectiveness of propaganda content. Propagandists can then identify and circulate the most compelling and effective content. As a result, this interconnectivity not only reduces the costs of content production but also helps propagandists create and circulate more engaging propaganda.

Social validation

The phenomenon of gaining likes, shares, and other forms of audience engagement on social media can be intrinsically motivating, as people seek to fulfill various needs and gratifications when using these platforms (Alhabash & Ma, 2017; Katz et al., 1973; Whiting & Williams, 2013).[3] In the context of propaganda production, the social validation feedback loop and the pursuit of audience engagement can incentivize some to produce original content that appeals to audiences. We do not claim that all producers find producing social media content intrinsically motivating, or that such incentives apply to workers at all times. Some producers may view production as merely work, aiming only to satisfy superiors and meet observable metrics. Nevertheless, while less motivated workers may not produce high-quality content, the sheer number of workers, who likely have differing motives, combined with the interconnectivity of social media networks, contribute to the sourcing and spreading high-quality material.

Monitoring

While decentralization in general may lead to a divergence between the interests of agents and their principals (Landry, 2008), social media facilitates monitoring in ways often infeasible through traditional decentralization methods. First of all, the significantly reduced cost of content production removes the need for marketization as an incentive mechanism for content creation. The absence of commercial interests among agents aligns their interests more closely with those of the principal, making it easier to monitor and discipline them.

Second, the number of posts that made, as well as quantified metrics such as views, likes, reposts, and comments, is publicly visible on social media (Boyd & Crawford, 2012; Lu & Pan, 2021). Consequently, principals can readily observe the volume of content produced by their agents' social media accounts, assess the success of these accounts in attracting audience attention, and make direct comparisons across different agents' accounts. This means principals can incentivize a large number of producers with limited resources by punishing accounts that are not producing content (shirking) and by organizing low-cost competitions where agents are evaluated on the basis of publicly visible social media engagement metrics. Finally, since relatively few pieces of content gain high levels of attention, if the content that gains attention is deemed objectionable by the principal, the offensive content is easily identified and the agent producing it punished.[4] Punishing creators of highly successful content deemed inappropriate by the regime acts as a strong deterrent, further encouraging other producers to align their work with propaganda guidelines.

All together, low costs of entry, interconnectivity, social validation feedback loop, and efficient monitoring on social media platforms enable decentralized propaganda by allowing the government to mobilize and oversee propaganda production among a large number of content producers with diverse interests, even those without access to professional media resources and training.

Note that we do not suggest digital media inevitably leads to the decentralization of propaganda, as other factors, such as motivation and manpower, are still required to drive and sustain decentralized propaganda efforts. First, the government must have an

[3] By intrinsically motivating, we mean appealing even if engagement does not lead to financial gain or self-presentation opportunities. For example, more likes and reshares may create a sense of social approval, which can fulfill the need for social relatedness (Gangadharbatla, 2008).

[4] For example, a local state-media account on Douyin, Hefei Financial Channel, falsely reported a super-spreader event during the COVID pandemic, which went viral on Chinese social media. The video contained fake photos and was quickly identified as false by netizens (for more details, see https://www.sohu.com/a/382050861/120214184). There are cases where those who operate state-affiliated accounts have been disciplined by the regime. For example, information disclosed by the Anhui Provincial Cyberspace Administration indicates that the operators of social media accounts, including Huainan Micro XX, Hefei Traffic XX, Hongye Firefighting XX, and Anhui XXX, among other non-state accounts, were "summoned and educated" for spreading inappropriate content. Although the full names of these accounts were not made public, they are clearly state-affiliated accounts, as only registered state accounts are allowed to use such administrative division names in their social media handles (for more details, see http://www.ahjg.bzw.gov.cn/content/detail/64c8460b7f8b9a8c188b4567.html and https://hqtime.huanqiu.com/article/4EVhZnXIoJg).

incentive to reach broad audiences with propaganda in the digital media era. Some regimes, particularly modern dictatorships, rely more on information control and manipulation than overt repression to maintain power (Guriev & Treisman, 2022). These regimes may have incentives to decentralize propaganda production to local officials who have better local knowledge to reach broad audiences. Second, the ability to employ the decentralized model depends on the availability of human resources, mobilization power, as well as a centralized capacity for control. A decentralized propaganda model requires the availability of individuals that the state can deploy for such assignments, which can include government workers, affiliated individuals (e.g., nationalistic youth, party members), and perhaps commercial actors who are sympathetic to the cause (Ong & Cabañes, 2019; Woolley, 2022). Such a model also requires a centralized authority to direct the actions of agents and to provide rewards or sanctions based on the agents' observed behavior.

Implications of a decentralized model

A decentralized propaganda model should have observable implications in the numbers and types of producers, content volume and diversity, content composition, information flow, and content engagement. First, we would expect to see a large number of propaganda producers with diverse backgrounds:

1a Number of producers: A decentralized model entails a large number of producers.
1b Type of producers: A decentralized model includes producers with access to professional media resources and training and those without.

Thus, we should observe a large number of content creators (1a), not limited to those with access to professional media training and resources (1b), but potentially including officials from various departments. In contrast, a centralized model would likely restrict production to those with access to professional media resources.

Second, the large number of producers with diverse interests in a decentralized model should generate a high volume of diverse content. While the interconnectivity of social media makes copying easier, the low cost of content creation also facilitates the production of original material. Coupled with the ease of central mobilization and monitoring for original content creation, we expect that content produced by peripheral creators will not simply replicate central content, but will instead exhibit originality.

2 Content volume and diversity: A decentralized model consistently produces a large volume of diverse content.

This implication differs from what we would expect in a centralized model, where content creation is concentrated in the hands of central propagandists who produce a limited amount of original content. In that model, while propaganda can be distributed in large quantities if the center invests in distribution channels, the distributed content are typically copies of the central content, resulting in low diversity of content.

Third, the low costs of content creation and easy monitoring ensure the creation of propaganda content. Whereas non-regime-affiliated accounts may strongly prioritize entertainment and sensational content to maximize views, we expect regime-affiliated producers to rely on such traffic-generating content to a lesser extent and to prioritize content aimed at improving public favorability toward the regime, for example, idealized images of the top leader, government achievements, national and military strength, responsible government policies and programs, and a good society. Furthermore, interconnectivity, instant feedback, and producers' local knowledge in a decentralized model, especially from peripheral creators, would result in propaganda content that differs from what would be produced by a centralized model, with greater focus on citizens' daily life rather than on ideology, top leaders, and grand achievements. This leads to the third set of observable implications:

3a Content composition A: A decentralized model produces content that is of a different content mix than what would be produced solely by non–regime-affiliated accounts.
3b Content composition B: Peripheral creators produce a different content mix compared to central creators.

In a decentralized propaganda model, where a vast number of producers create large quantities of content tailored to varied audience interests and needs, information flow among government-affiliated producers differs from that in a centralized propaganda system. Information dissemination in a traditional broadcast framework, and what we would expect in a centralized propaganda system, is typically unidirectional: A small number of central media outlets produce the best content, which is then copied by peripheral state media. Decentralization on social media changes this pattern. Instead of solely sourcing content from a small number of central propaganda outlets, the interconnectivity of social media allows accounts to easily share content among themselves. Central accounts can source content from peripheral accounts, while

peripheral accounts can use materials from central ones or other peripheral accounts. Regime-affiliated accounts may also incorporate materials from non-regime content producers. Thus, a decentralized propaganda model on social media implies that content flows not only from the center to the periphery but also the other way around.

4 Content flows: In a decentralized model, we expect that content flows in both central–peripheral and peripheral–central directions.

The characteristics of a decentralized propaganda model enable engagement with broader audiences than would be possible through a centralized system. Though not every piece of content, or even the majority, produced by a decentralized model gains widespread attention, a decentralized model achieves greater audience engagement. This occurs for two reasons. First, a larger and more diverse pool of producers increases the chances of content receiving broader attention. Second, and perhaps more importantly, the most successful pieces can be redistributed by other accounts, thereby amplifying the breadth and depth of information cascades to reach even larger audiences. This leads to the final observable implication:

5 Engagement: In a decentralized model, we expect that content copied by central accounts from peripheral accounts to have higher audience engagement than content originating from central accounts.

Studying propaganda in China

This paper focuses on whether China, under the rule of the CCP, has adopted a decentralized propaganda system for two main reasons. First, the CCP meets the scope conditions of where we may expect to observe a decentralized propaganda model. China under CCP rule is a high-capacity authoritarian regime that has for decades exhibited a high level of control over traditional, broadcast media (Brady, 2009; Qin et al., 2018; Stockmann, 2013), as well as power to mobilize regime insiders and the public more broadly (Looney, 2020).

Second, the CCP has demonstrated its interest in controlling information on digital media instead of imposing a complete ban of social media. China has implemented, large-scale, multifaceted censorship with strategies ranging from website filtering to content removal (Chen & Yang, 2019; Gallagher & Miller, 2021; King et al., 2013; Roberts, 2018). China bans many US-based digital media platforms—for example, Facebook, Instagram, YouTube—through the so-called "Great Firewall," but has allowed Chinese social media platforms to grow and serve the large and lucrative domestic Chinese market (Pan, 2017). In the past 10 years, the CCP has adopted the strategy of "media convergence" (Repnikova & Fang, 2019).[5] While media convergence has many aspects, one of its goals is for the CCP to occupy digital spaces.[6] The key social media platforms targeted by the government for media convergence has expanded from "Two Wei" (两微), which refers to WeChat and Weibo, to "Two Wei and One APP" (两微一端, which expanded beyond WeChat and Weibo to include government applications), to currently "Two Wei, One APP, and One Dou" (两微一端一抖), which includes Douyin. The CCP has made substantial headway in establishing its presence on Chinese social media platforms. As of December 2022, all provinces in China have created their Weibo accounts, and more than 145,000 Weibo accounts are verified as government-affiliated accounts on Weibo.[7]

DATA AND METHODS

To evaluate whether we detect the observable implications of a decentralized propaganda model in practice, we examine the digital presence of the CCP on the short-form video platform Douyin. We focus on Douyin because the platform has been hugely successful in capturing the Chinese social media market, reaching over 750 million monthly active users as of 2023 and growing more quickly than any other Chinese or global social media platform in recent years. In contrast to traditional social media platforms such as Weibo, the video-based format of Douyin draws users from China's lower tier, non-coastal cities. The average user spends 73.6 min on Douyin each day, and Douyin serves as a primary source of information for many ordinary Chinese people.[8] In addition, Douyin has worked closely with the CCP, including providing training on how to build audience for state-affiliated

[5] In November 2013, the Third Plenary Session of the 18th Central Committee of the Chinese Communist Party proposed the promotion of the integrated development of traditional and new media, indicating that "media convergence" had become a consensus of the entire Party. In August 2014, Xi emphasized in "Guidelines on Promoting the Convergence and Development of Traditional and New Media" (关于推动传统媒体和新兴媒体融合发展的指导意见) that media convergence should undergo an "in-depth convergence between traditional and new media in aspects like content, channels, platforms, operations, and management," and developing new forms of mainstream media and media groups with "diverse forms, advanced methods, and competence" (https://www.cma.gov.cn/2011xzt/2015zt/20150827/2015082703/201508/t20150827/291684.html).

[6] See, for example, Grasp, the trend of media transformation and actively occupying emerging public opinion positions—Study and implement General Secretary Xi Jinping's important expositions on the development strategy of emerging media (http://www.xinhuanet.com//politics/2016-06/14/c/1119039250.html).

[7] "The 46th China Statistical Report On Internet Development." China Internet Network Information Center, 2023.

[8] See https://m.tech.china.com/tech/article/20210825/082021/859739.html and https://min.news/en/tech/8292efb21/d908cc0c80e7379ace164db.html.

accounts, and has been emphasized as a key channel that the CCP must dominate by China's leader Xi Jinping.[9] Together, this means Douyin encompasses a huge audience base and is a platform where the CCP is active.

Similar to social network–based platforms such as Weibo and Facebook, Douyin features highly diverse content and offers audiences a wide range of choices; consequently, the government faces the challenge of competing for attention (King et al., 2017; Lu & Pan, 2021, 2022; Roberts, 2018). Douyin differs from older social media platforms in its algorithm-driven approach, where content delivery does not rely on users building their own social networks. On Douyin, users receive content recommendations before establishing connections with other accounts. However, this distinction is one of degree rather than kind, as feed ranking algorithms also play a large role on social media platforms like WeChat and Facebook, which initially emerged as social networks (Guess et al., 2023).

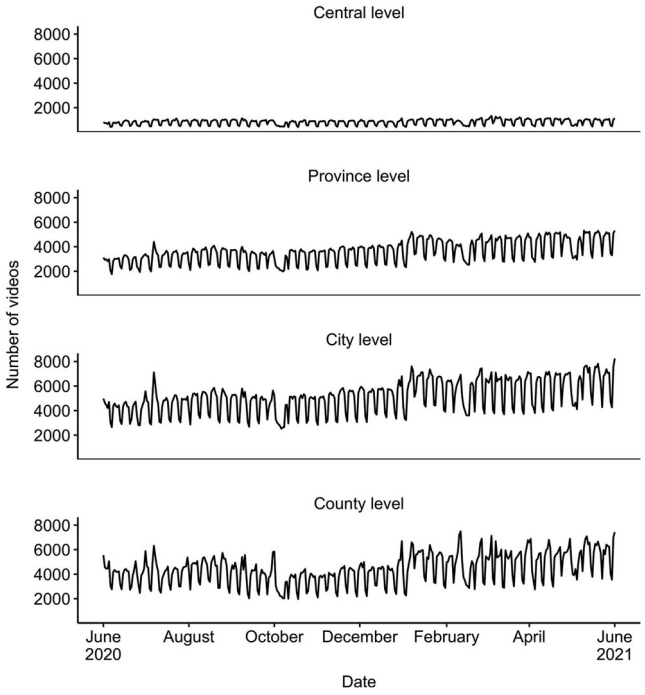

FIGURE 1 Number of videos over time by administrative level. *Note*: The figure displays the daily number of videos produced by accounts at different administrative levels—central, provincial, city, and county—over time.

Data collection

We identify a total of 21,208 regime-affiliated accounts (see Supporting Information Appendix A [p. 1] for details) and collect all videos from their timelines made between June 1, 2020, and June 1, 2021. We exclude accounts that did not post any videos during this time period, resulting in 5.17 million videos from 19,042 accounts. Figure 1 shows that content production exhibits a weekly pattern, which is often observed among government-run social media accounts, where more content is posted on weekdays than on weekends (Lu & Pan, 2021). Regime-affiliated accounts averaged 11,544 videos per day during the first month of our data collection and 16,945 videos per day at the end of our data collection.

We use account and video data to (a) examine the characteristics of content producers; (b) assess the volume and diversity of content using video similarity analysis; (c) analyze the composition of content; (d) analyze the direction of information flow, and (e) measure the level of user engagement.

Analyzing characteristics of propaganda producers

We expect a decentralized propaganda model to include propaganda producers at the center and periphery, with and without access to professional media training and resources. As a result, we focus on measuring two main characteristics of propaganda producers: (1) central–peripheral position and (2) media professionalization. For the first characteristic, we use central versus local administrative level as proxies for the central–peripheral relations in China. We identify the administrative level of an account by manually examining the verification details in the account metadata. We classify whether an account is affiliated with (a) central-level, (b) province-level, (c) prefecture/city-level, or (d) county-level entity, where (a) represents central accounts and (b)–(d) peripheral (see Supporting Information Appendix B [pp. 3–4] for rationale and details). For the second characteristic, we consider an account to be run by producers with access to professional media resources and training if the account is affiliated with any state-controlled media outlets or the CCP propaganda department and its local branches because these organizations have traditionally been tasked with propaganda work in China (Brady, 2009; Stockmann, 2013). These are bureaucracies that likely, before the digital media era, had access to the resources to produce professional grade media infrastructure, equipment, and personnel, and still do today. We identify the functional affiliation of an account by manually examining the verification details in the account metadata and classify accounts as (a) state media, (b) propaganda depart-

[9] See http://www.cac.gov.cn/2019-12/03/c/1576907933632994.htm.

ments, (c) government administrative offices, (d) security apparatus, (e) firefighters, (f) local Communist Youth League, (g) culture/travel departments, (h) other departments, or (i) other accounts,[10] where (a) and (b) represent accounts with access to professional media training and resources, and (c)–(h) do not.

Video similarity analysis

We expect a decentralized propaganda model to produce diverse and original content. To evaluate this, we assess the similarity of videos produced by accounts at different levels of administration. To reduce computational costs, we start by sampling 5 days in each month. For each sampled day, we include data from 3 days before and 3 days after. This results in a total of 244 days for this analysis. Within each day, we compare videos posted by central-level accounts against those posted by all local-level accounts (e.g., central-created video A with province-, city-, and county-created videos) and videos posted at the central level are compared with all other central-level videos (e.g., central-created video A with central-created video B).

Comparing videos can be a challenging task as videos include multiple modalities (audio, visual, and text), which require more time and effort to annotate (Nyhuis et al., 2021). Despite a rising interest in studying videos as data in social science research (Dietrich & Juelich, 2018; Kang et al., 2020; Lu & Pan, 2022), little work focuses on video-based similarity comparison. We apply a convolutional-neutral-network–based frame-to-frame video-similarity learning framework, ViSiL (Kordopatis-Zilos et al., 2019), to calculate the similarity between each two videos. Compared to other state-of-the-art frameworks that compare videos frame-by-frame, ViSiL not only considers the spatial (intra-frame) information of the video but also considers the temporal (interframe) information to calculate the similarity of two videos. On each sampled day, we compare an average of 2.8 million central–county video pairs, 3.7 million central–city video pairs, 2.5 million central–province video pairs, and .7 million central– video pairs. ViSiL generates a similarity score from 0 to 1 for each video pair. We set our similarity threshold to .75 based on human validation (for more details and example video comparisons, see Supporting Information Appendix C [pp. 4–6]). Using the similarity score for each local video for each day, we calculate the percentage of videos in province-, city-, and county-level accounts that match at least one video from a central-level account on each sampled day, as well as the percentage of central-level videos that are copied from the same level.

Categories of content

While we expect diversity and originality in content, to measure the composition of content and how this may differ between regime and non–regime-affiliated accounts, we conduct human-based video content analysis on a random sample of 18,571 videos produced by accounts at different levels of the administration, selected through stratified sampling by date of creation. Five trained native Chinese speakers watched each video and placed it into six categories with 15 subcategories. We conducted three rounds of training for the coders, achieving inter-coder reliability of 74%.

As shown in Table 1, the categories are (1) party-line propaganda, which includes content related to CCP ideology and central-level CCP leaders; (2) nationalism; (3) moral society, which focuses on the positivity in people's daily lives and punishment of immoral behaviors; (4) government announcements and guidance; (5) entertainment and sensational content; and (6) a residual category of other content (for detailed coding rules, see Supporting Information Appendix D [pp. 6–8]).

All categories except moral society are derived from existing research on propaganda and political communication. Party-line propaganda represents hard propaganda, which signals the party's power (Huang, 2015). We consider party-line content to be propaganda as it is intended to influence public behaviors—for example, suppress dissent—in line with what the regime favors. Nationalism content has been a long-standing feature of China's patriotic propaganda campaigns and education reforms (Cantoni et al., 2017; Zhao, 1998). We consider content in the nationalism category propaganda as content heightening in-group solidarity, describing major scientific or cultural achievements, and denigrating out-groups—people, governments, political systems—in other countries or regions is intended to shift attitudes to be more favorable toward the CCP regime.

Announcements, which includes image building by the local governments and purely informational content, has been a well-documented feature of communications by the Chinese government (Chen et al., 2023; Pan, 2019). Content in the announcement category may (image-building) or may not (weather reports) be propaganda. Given this ambiguity, we err on the side of conservatism and do not consider announcements to be propaganda. Finally, entertainment is a primary function of digital media

[10] To err on the side of conservatism, we exclude "other accounts" (see Supporting Information Appendix A [pp. 2–3]) since the strength of ties between the regime and these accounts is not always clear or strong. As a result, the final data set consists of 5.14 million videos from 18,684 accounts, which is the basis for all analyses in this paper.

TABLE 1 Content categories and example video titles.

Category	Example video titles
Party-line	Socialism and revolutionary culture Xi Jinping confers flag to China's police force and speaks at the ceremony
Nationalism	War of Chinese people's resistance against Japanese aggression
Moral society	Respect! The bus drivers suffered a heart attack but stopped the bus before falling into a coma!
Announcements	Pensions for retirees rose by 4.5%! Notice! Power cuts will happen in the following places in Xuanwei! Please inform others
Entertainment	Disco dance of an old man in a Hebei park Who wins? Rat vs. squirrel
Other	US study: New coronavirus may have mutated to make humans more susceptible to infection

Note: The table presents content categories based on human coding of a random sample of 18,571 videos produced by accounts across various administrative levels.

(Boyd, 2008), and we expected content to fall into this category. Content in the entertainment category, which is unrelated to political life and oriented toward attracting viewers, does not fall under our definition of propaganda.[11]

Finally, moral society is an inductively derived category, which emerged from the data. We expected a decentralized propaganda model to produce content like announcements closer to people's lives because of the proliferation of producers; however, in addition to videos falling neatly into the announcements category, we observed videos pertaining to everyday life that consistently portrayed China, its government, and its people as good and moral. We thus labeled this category moral society. We consider content in this category to be propaganda as it appears intended to positively affect attitudes toward the regime by implying that the regime is responsible for producing this good society.

In addition to categorizing sampled videos from regime-affiliated accounts, we also compare the content composition of 8,028 trending videos made by regime-affiliated and non–regime-affiliated accounts posted between June 1 and June 17, 2020. Trending videos are identified by their inclusion on the Douyin Trending Billboard, as highlighted by the Douyin platform. This shorter timeframe is chosen because data on trending videos from non-regime accounts are only available during this period (Lu & Pan, 2022).

Content flows

We expect that in the decentralized model, content not only flows from the center to the periphery but also from the periphery to the center. To identify content flows between central and local accounts, we utilize the previously mentioned video similarity analysis and the posting times of the videos, as the sequence of posting indicates the original source of the videos. We define central-level videos sourced from lower levels as those central-level videos that are highly similar to local-level videos where the local-level video was posted prior to the central-level video. In all other cases, we consider the central-level video to be the source.[12]

Audience engagement

Lastly, to determine how a decentralized propaganda model reaches audiences, we analyze the number of likes, comments, and reshares of videos. Specifically, we compare user engagement with video originating from central-level accounts to the engagement with central-level videos that are copied from lower levels. We expect the latter, videos originating from local-level accounts but copied by central-level accounts, will have better user engagement. In addition, we merge the hand-labeled sample of 18,571 videos with the sample of videos for which we have similarity analysis. This allows us to identify a sample of propaganda-only content from central-level videos and compare user engagement between propaganda videos originating from local-level accounts and copied by central-level accounts and propaganda videos originating directly from central-level accounts.

[11] The entertainment category includes negative sensational content, which we also do not consider to be propaganda since most events either do not pertain to the government or reflect negatively on it.

[12] This includes central-level videos that bear no similarity to any local-level videos, as well as central-level videos that are similar to local-level videos, but where the central-level video was posted first. Because there are four different local levels, we compare the central level to each local level separately to provide more detailed insights into information flows while minimizing computational demand. Note that this method is biased against finding of locally originated videos, as it overcounts central origination. A video produced at one local level may be copied by the central level and then copied again by another local level. In this situation, the locally originated video is misattributed as centrally originated. However, all videos that are truly of central-origin are correctly identified in comparison between the central level and each local level. Therefore, the numbers we provide is likely an underestimate of local origination of videos.

Research ethics and reproducibility

From the perspective of transparent and reproducible social science, the scale and type of data collected as well as method used create challenges that are worth noting. First, we do not share the video content to try to maintain the anonymity of accounts. Second, the analysis of the video content is highly computationally intensive—for example, ViSiL entails comparisons of over a billion video pairs, which would require more time and money than is typical for a replication. To enable replication, we share the intermediate data in the replication files and the code used to generate the final output.

RESULTS

We test the implications of the decentralized propaganda model outlined in the theory section and report the findings below.

Proliferation of propaganda producers

As expected in a decentralized model, we observe a large number of accounts run by producers without access to professional media resources and training, alongside accounts from state-media outlets and propaganda departments. Figure 2 shows the breakdown of accounts by administrative level (*x*-axis) and functional bureaucracy (*y*-axis).

A substantial number of accounts belong to state-controlled media outlets (4,510) and propaganda departments (2,144) at all levels of government. However, the functional bureaucracy with the largest presence on Douyin is the security apparatus with 6,099 accounts across different levels of government, which aligns with recent work on the public relations campaigns of the Ministry of Public Security (Scoggins, 2022). In total, state media accounts for 24.1% of all accounts and propaganda department at 11.5%.

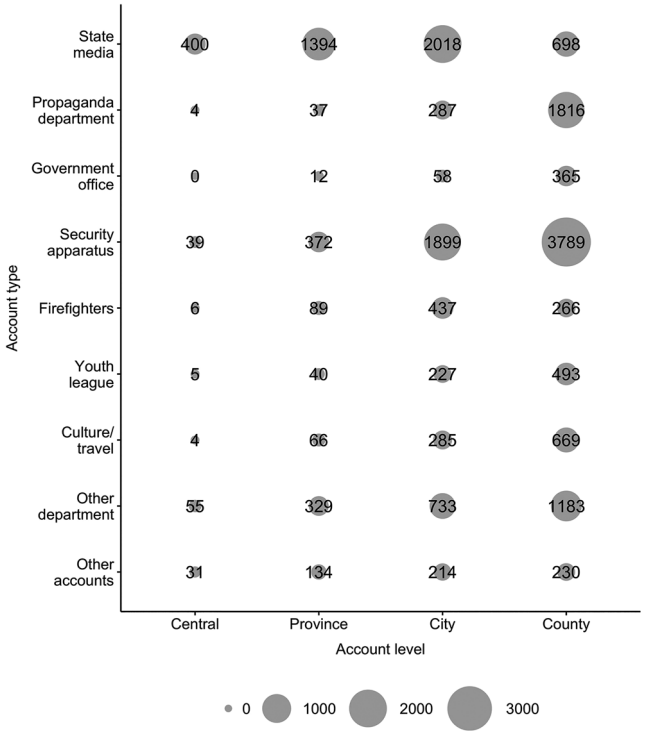

FIGURE 2 Number of regime-affiliated accounts by level and type. *Note*: The figure shows the distribution of accounts by administrative level (*x*-axis) and functional bureaucracy (*y*-axis). The size of circles and the numbers indicate the number of accounts within each functional bureaucracy at each administrative level.

TABLE 2 Number of regime-affiliated accounts and videos.

Administrative level	Total accounts	Total videos
Central	544	305,371
Province	2,473	1,327,555
City	6,158	1,886,783
County	9,509	1,621,812
Total	18,684	5,141,521

Note: The table presents the number of accounts and videos by administrative level.

High content volume and diversity

Regime-affiliated accounts at all levels produce a high volume of content (see Table 2), with each account averaging 275 videos per year.

The videos that are produced by these accounts are not copies but instead diverse.

Figure 3 shows the proportion of videos from provincial-, city-, and county-level accounts that match central-level videos by day, for all sampled days. On average, only about 10% of local-level videos are copies of central-level videos. There is variation in the level of copying over time, but even the day with the largest spikes in similarity—May 22, 2021, death of Yuan Longping—fewer than half of local level of videos are copies of central-level videos (see Supporting Information Appendix E.2 [pp. 9–12] for a detailed analysis of three dates where local-level copying of central-level content is highest). In addition, a small proportion of central-level videos are copied by local levels. There are 59,514 central-level videos (31%) in our sampled days with local matches, while the remaining 135,119 (69%) are not copied by local levels at all.

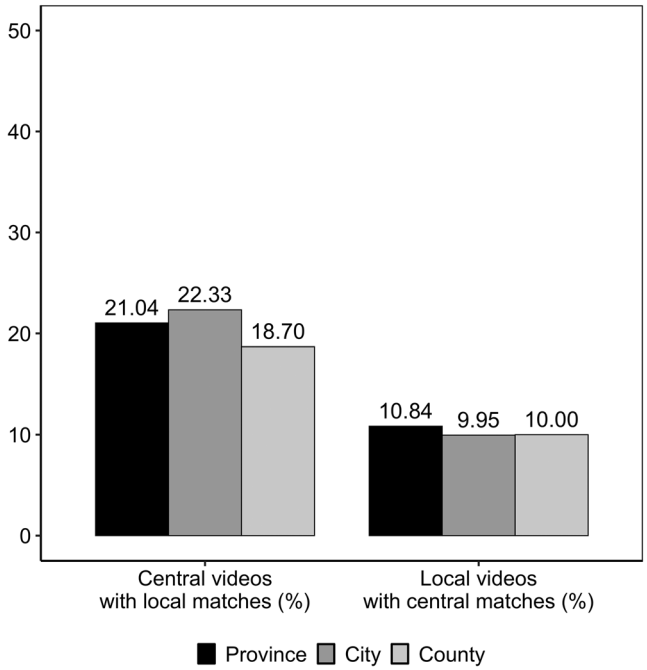

FIGURE 3 Proportion of matched videos between central and local levels. *Note*: The left group of bars in this figure shows the daily proportion of central-level videos that match videos from provincial-, city-, and county-level accounts across all sampled days. The right group of bars displays the daily proportion of videos from accounts at each local level that match central-level videos.

Differences in content composition

The mix of content from regime-affiliated accounts differs from what is observed among non-regime accounts.

Figure 4 compares the mix of content from non-regime accounts with those from regime-affiliated accounts, categorized by party-line propaganda (in dark red), nationalism (in orange), moral society (in dark pink), announcements and guidance on people's daily life (in light pink), entertainment (in blue), and other (gray). The top bar shows that the distribution of content among trending videos created by non-regime accounts is dominated by entertainment or sensational content (86.2%) with very little content related to nationalism (2.4%) and even less related to party-line propaganda (less than 1%). In the same time period, the mix of content from regime-affiliated accounts, both overall (bottom bar of Figure 4) and among trending videos (middle bar of Figure 4), show much larger shares of content related to propaganda.

Content is mostly focused on matters of daily life (moral society and announcements) as shown in Figure 4, and this pattern is especially pronounced among peripheral accounts.

Figure 5 shows the share of videos from each administrative level. Central accounts tend to produce more party-line propaganda and nationalism content than lower level accounts, despite the fact that central accounts have copies content from local accounts, as we will show below. The vast majority of content produced by local accounts fall in the moral society and announcement categories, which are most directly relevant to people's everyday lives.

One might be concerned that the rise of moral society content is a result of the COVID-19 pandemic, since these data were collected between June 1, 2020, and June 1, 2021. This is unlikely for several reasons. First, China effectively contained the pandemic from April 2020 to late 2021, thereby reducing public concern about the virus. Second, moral society content predates the pandemic and has been a major theme of Xi era propaganda since 2012, often described as "positive energy" (正能量, zheng nengliang) in official speeches (Chen & Wang, 2019). Third, moral society content was not notably present in trending videos from non-regime accounts in June 2020, indicating it is not a direct response to the pandemic (Figure 4).

Content flow

Figure 6 shows that among central videos that have a match among local-level videos, the majority, 32,930 (55%), were first posted by local levels, especially by city- and provincial-level accounts.

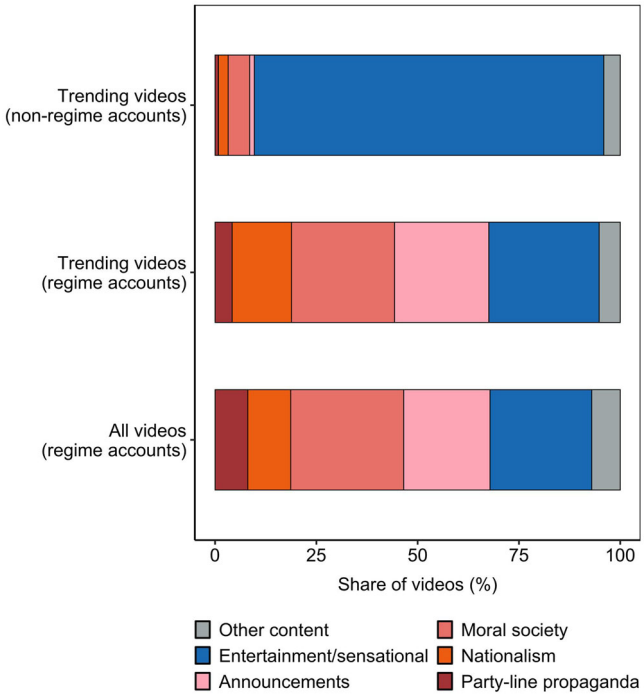

FIGURE 4 Content categories for regime and non-regime accounts (June 1–17, 2020). *Note*: The figure compares the distribution of content categories for trending videos from non-regime accounts with both trending and all videos from regime-affiliated accounts; there are six content categories.

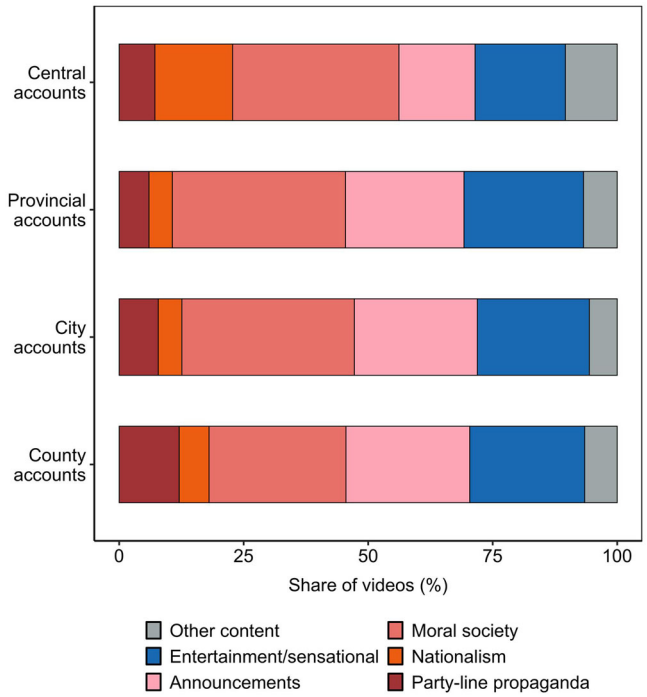

FIGURE 5 Content categories by administrative level (June 1, 2020, to June 1, 2021). *Note*: The figure compares the distribution of content categories of videos from regime-affiliated accounts at different administrative levels; there are six content categories.

These results show that information is not only flowing from the top-down, but from the bottom-up as well. In fact, the bottom-up information flow, where central-level videos are of local origin, is the predominant pattern.

Many videos originating from local levels and reposted by the center contain content related to moral society. These videos capture ordinary people as well as those holding government-affiliated jobs such as healthcare workers, firefighters, and police. For example, one video (see frames of video A in Supporting Information Appendix D [p. 8]) captures footage of a firefighter working to rescue someone caught in raging floodwaters. While the video is shaky and somewhat blurry, the background music conveys heroism and dedication. The accompanying caption, "Salute the heroes who go against the flow! Firefighters are risking their lives to rescue people" (为逆行英雄点赞!消防员奋不顾身营救群众) emphasizes the selfless goodness of the firefighter in serving a community facing adversity. Another example (video B in Supporting Information Appendix D [p. 8]) contains low-quality CCTV footage of a 9-year-old girl from Jiangxi Province carrying a 3-year-old boy who was lost on the street to the police, along with still photos of a police officer holding the boy, the girl with police officers, and the girl at school. Captions narrate the girl's actions, highlighting her virtue and kindness, while poignant background music enhances the emotional tone. A third example (video C in Supporting Information Appendix D [p. 8]) depicts a healthcare worker repeatedly bowing. The captions explain that she is a frontline health worker in northern China who did not leave her post to be with her dying mother. Instead, she bows in the direction of her hometown, where her mother passed away, as a gesture of mourning and respect. Similar to the video of the firefighter, the footage was taken in low light with low resolution, but the emotionally evocative background music elicits sympathy and admiration for the selfless contributions.

Audience engagement

When we look at user engagement between central-level videos of central origin and central-level videos of local origin, we find that engagement is higher for videos where the center has recirculated content originating from local levels (see Figure 7). This engagement pattern is consistent with the understanding that a decentralized propaganda model,

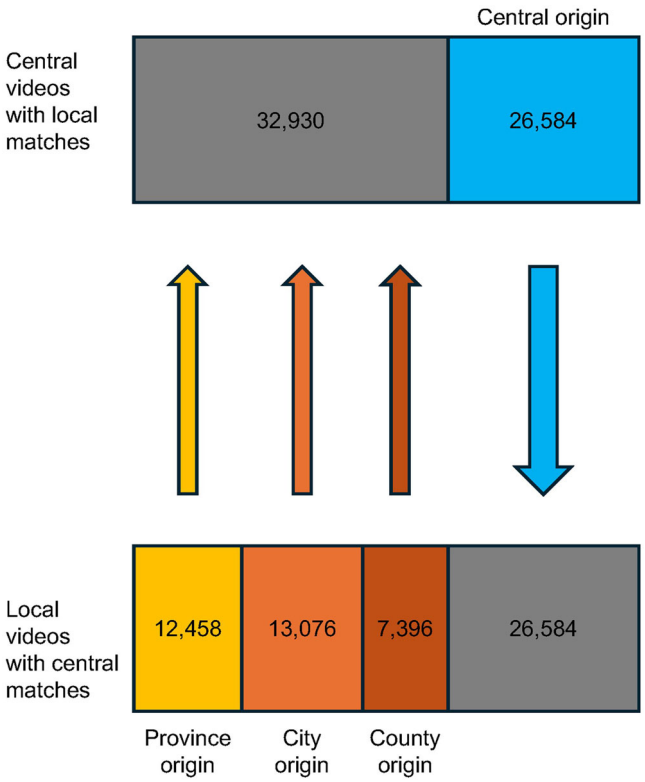

FIGURE 6 Number of matched videos originating from central and local levels. *Note*: This figure presents the number of central videos that have a match among local-level videos, distinguishing between bottom-up and top-down content flows. The colored bars represent the origin of the matched central videos, with the top section showing central-origin videos that have local matches and the bottom section displaying local-origin videos that match central content. The arrows between the sections indicate the direction of content flow.

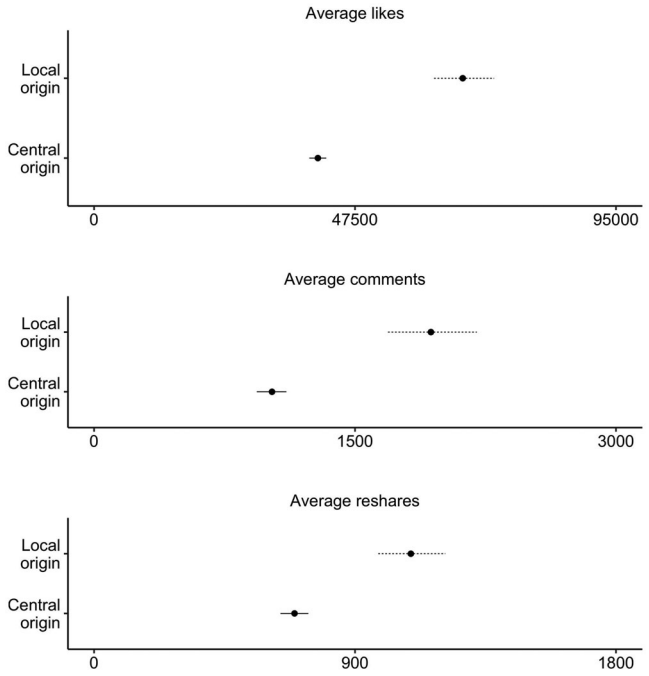

FIGURE 7 Average engagement with central-level videos by creation source. *Note*: This figure compares average user engagement—measured in likes (top panel), comments (middle panel), and reshares (bottom panel)—between central-level videos based on their origin (local vs. central).

with a large number of accounts and diverse content, may reach fragmented, niche audiences[13] and increase audience engagement compared to a top-down, broadcast model driven by central accounts. This pattern does not result from central accounts merely copying entertainment from local accounts. Instead, the content that central accounts copy from local accounts contains more propaganda, especially moral society content, than original content from central accounts (see Supporting Information Appendix E.3 [pp. 12–13]).

DISCUSSION

In this paper, we conceptualize a decentralized propaganda model, characterized by a larger number of producers—including those with access to professional media resources and training and those without—who create original and diverse propaganda to reach fragmented digital audiences. We find evidence of such a model in China on Douyin by identifying over 20,000 regime-affiliated accounts, the majority of which are run by bureaucracies not traditionally tasked with media or propaganda broadcasting, and analyzing millions of videos posted by these accounts. Regime-affiliated accounts actively produce a large volume of diverse content. Content produced by these regime-affiliated accounts is propaganda-oriented, with a substantial portion focusing on moral society, as well as ideological propaganda and idealizing of top leaders. While these accounts generate entertainment and sensational content, perhaps aimed at increasing audience traffic, we observe a much smaller proportion of such content than that produced by non-regime creators on Douyin. In addition, content does not flow solely in a top-down manner as we would observe in a centralized model. Local-level accounts produce large amounts of original videos, and central accounts often recirculate this local content. Notably, user engagement is higher for central-level videos repurposed from local content compared to those originating directly from the center. This suggests that a decentralized propaganda model may be more effective than a purely top-down distribution system, allowing government content to reach fragmented audiences in the digital media era.

These findings have important implications for our understanding of government propaganda in the era of digital media. They challenge prevailing assumptions of how propaganda is created and disseminated and extend existing theories of how authoritarian governments engage in propaganda, such as through distraction or flooding (King et al., 2017; Roberts, 2018), by affecting the algorithmic decision making (Lu & Pan, 2022), and by employing more captivating or attention-grabbing content strategies (Lu & Pan, 2021; Mattingly & Yao, 2022). This paper reveals that the Chinese government has adapted to digital media by altering the organizational structure, personnel, information flow, and content strategies of its propaganda system.

While decentralization enables the regime to produce better and more diversified content, presumably to improve persuasiveness and audience engagement, the massive presence of the Chinese state on social media required for this may also signal the state's power (Huang, 2015). Not all propaganda will be appealing or gain high audience engagement, but such content may nonetheless be visible to the public and remind them of the state's presence and power. In other words, these two roles of propaganda, for influence or persuasion and for signaling, can complement each other in a decentralized model.

These findings also deepen our understanding of decentralization in authoritarian contexts. Decentralization within authoritarian regimes is well-documented (Heilmann & Perry, 2020; Landry, 2008; Xu, 2011). Authoritarian regimes, including the CCP, have implemented decentralization strategies across various domains. A notable example is the delegation

[13] Supporting Information Appendix E.5 (pp. 17–18) shows that the diverse content does, in fact, attract audiences with varied and fragmented interests.

of autonomy to local governments to foster economic growth and policy experimentation (Maskin et al., 2000; Montinola et al., 1995; Oi, 1992). However, decentralization poses significant challenges for regimes, such as moral hazard—ensuring that delegated agents exert effort and adhere to the regime's objectives—and negative externalities, resulting from intense competition among agents leading to overlooked adverse outcomes. When a decentralization model is applied for economic growth, monitoring agents can be challenging, and regimes often rely on proxies like GDP growth to gauge effort. In contrast, with social media, many effort-related metrics (e.g., number of posts, audience engagement) are publicly visible to both the principal and other users. Additionally, negative externalities, such as the proliferation of content that contradicts propaganda objectives, can be more easily monitored and addressed by the regime as needed.

Several limitations should be kept in mind when interpreting these results. First, our analysis relies primarily on data from regime-affiliated accounts, though we supplement this with trending videos from non–regime-affiliated accounts over a brief period. The degree to which video content from regime-affiliated accounts varies from that of nongovernment accounts remains unclear. Future research should collect representative data on nongovernment accounts to address this concern. In addition, there are likely social media accounts affiliated with the regime (e.g., accounts co-opted by the regime or accounts managed by private companies acting as government contractors) that we have not identified due to the nonpublic nature of these relationships. This indicates that the extent of regime activity identified in this paper is likely an underestimate.

Second, social video platforms like Douyin have distinct features that set them apart from traditional media such as newspaper and TV programs, as well as from social network–based platforms like Weibo or WeChat, where text and still images are more pervasive. Some aspects of the new model we identify and describe in its paper may be specific to the video format. However, we anticipate that other facets of the decentralized propaganda model, for example, personnel without access to professional media resources and training, a large volume of content, diverse content types, and multidirectional information flow, will be observable on other social media platforms prioritized by the Chinese government.

Lastly, although our focus is solely on China and authoritarian propaganda systems, the decentralized propaganda model may be relevant for other political contexts, including hybrid regimes and illiberal democracies (Levitsky & Way, 2010; Zakaria, 1997), and for both domestic and foreign influence. As digital media has fragmented audiences globally, the decentralized propaganda model may be relevant more generally for political actors—whether a government or political party—seeking to reach broad audiences. Importantly, this model does not necessitate direct government control over internet infrastructure, service providers, or content platforms, making it accessible in differing contexts. This includes governments that lack strong technical or economic control over digital technologies, as well as political parties that do not have access to state resources. The model primarily relies on the mobilization of content creators. While in China, which is a single-party regime, content creators are party and government insiders, in other regimes, they may be partisans or private contractors sympathetic to the cause. In other words, the mobilization of a large and diverse corps of content creators is a commonality we would expect to see in decentralized propaganda systems in both China and beyond, but who is mobilized will vary by context. We hope future research will explore the decentralized propaganda model in other domestic contexts, such as India's right-wing Hindu nationalism (Udupa, 2019), political trolls in the Philippines (Ong & Cabañes, 2019), and Russia's domestic online propaganda efforts (Sobolev, 2019), as well as across borders (Alizadeh et al., 2020).

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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