

Decentralized Propaganda in the Era of Digital Media: The Massive Presence of the Chinese State on Douyin

Yingdan Lu Jennifer Pan Xu Xu Yiqing Xu

Supplemental information, for online publication only

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A Account Identification

Chinese government reports claim there were 25,313 regime-affiliated accounts on Douyin as of June 2020.^{A1} However, there are no lists documenting these accounts. To identify accounts affiliated with the Chinese government or the CCP, we start with 2,478 known regime-affiliated accounts whose videos were highlighted in Douyin’s Trending Videos in 2020 (Lu and Pan 2022). Then, we identify all accounts these 2,478 accounts follow.^{A2} This resulted in 114,689 unique accounts, among which 22,070 accounts were verified enterprise accounts, of which regime-affiliated accounts are a subset.^{A3} Six trained, native Chinese speakers manually examined the detailed verification information in each account’s metadata to identify 7,879 new regime-affiliated accounts from the 22,070 accounts following the coding scheme below. Then, we repeat this process, collecting the verification status of all accounts followed by the 7,879 regime-affiliated accounts and identifying additional new regime-affiliated accounts. From this process, we identify a total of 21,408 regime-affiliated accounts, which is close to the number reported in the 2020 government report.^{A4} We then collect all videos and metadata 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. We share the intermediate data in the replication files and the code used to generate the final output (Lu et al. 2025).

A.1 Account Codebook

Task Description: For each Douyin user, search for their username on the Douyin mobile app and go to their profile page. Code each user’s features as follows:

Q1: Which category does this account belong to? (account affiliation)

- 0: Ordinary User - No verification or has fewer than 10,000 followers
- 1: Celebrity-related account - Account with Yellow V (influential individuals) with verification information as a well-known artist, singer, actor, athlete, anchor, celebrity fan club beyond Douyin; examples: Zhang Xincheng (张新成), Zhang Jike (张继科), He Jiong (何炅), Jay Chou Youth Fan Club (周杰伦青春后援会), etc.
- 2: Creator/Blogger/Influencer account - Account with more than 10,000 followers or verified as a Yellow V (influential individuals) who are not well-known artists, singers, actors, athlete, anchors, or celebrity fan club. Examples: Knife Little Knife sama (刀小刀sama), Sheep Sheep Sheep (羊羊羊), Teacher Xiang Bo (向波老师), etc.
- 3: Entertainment/Internet Company Account - Account verified as entertainment accounts or We-media (Zimeiti). Examples: Hui Huo (会火), Mang Guo Big Star (芒果大明星), Ace vs. Ace (王牌对王牌), Maoyan Movie (猫眼电影), Migu Sports (咪咕体育), or accounts operated by tech companies such as Sina, NetEase, Sohu, Tencent, Baidu, Toutiao, and Douyin, etc.

^{A1}“The 46th China Statistical Report on Internet Development.” <https://bit.ly/4gc4uOe> Accessed on January 18, 2025.

^{A2}This was done in 2021. We focus on following networks instead of follower networks because regime-affiliated content creators are more likely to follow one another, whereas their follower networks might be extremely large and diverse.

^{A3}We only include verified enterprise accounts in our analysis because official, regime-affiliated accounts all have enterprise verification. While there may be regime-affiliated accounts without enterprise verification, we err on the side of precision and only include verified accounts.

^{A4}Since the report is from 2020 and our account identification procedure was conducted in 2021, we do not expect the numbers to match perfectly.

- 4: Media Account - Blue V (enterprise) verified accounts operated by a newspaper, magazine, radio, TV, new media, or news group. Examples: The Paper (澎湃新闻), China News Service (中国新闻网), Global Times (环球时报), People.cn (人民网), The Beijing News (新京报), Hubei Enshi TV Station (湖北恩施电视台), Yi Chui Video (一槌视频), Yuanyang Road No. 1 (远洋路1号), Great Wall New Media (长城新媒体), Dahe Client (大河客户端), Caixin Time (财新时间), etc.
- 5: Government Account - Blue V (enterprise) verified accounts operated by central and various levels of Chinese Communist Party or government offices, bureaus, departments, and affiliated organizations. Examples: The Central Committee of the Communist Youth League of China (共青团中央), Nanjing Release (南京发布), Chancheng Public Security (禅城公安), Ruijin City Integrated Media Center (瑞金市融媒体中心), Compulsory Rehabilitation Center (强制戒毒所), Peking University Youth League Committee (北京大学团委), firefighter, army, procuratorate, court, Scenic Area Management Committee (风景区管理委员会), Association for Science and Technology (科协), Anti-Drug Association (禁毒协会), Anti-Fraud Center (反诈骗中心), Women's Federation (妇联), Emergency Management Center (应急管理中心), Lottery Management Center (彩票管理中心), Vehicle Management Office (车管所), etc.
- 6: Other - Accounts that do not fall into any of the above types. Examples: Meimei Household Store (美美日用百货), Chef Dong's Homemade Dishes (董小厨家常菜), Wanzhou Grilled Fish (万州烤鱼), The Palace Museum (故宫博物院), Korea Tourism Organization Shanghai Office (韩国旅游发展局上海办事处), etc.

If Q1 is coded as 4 (Media account):

Q2: Is the media state-owned? (State-owned media accounts are those directly managed by the central, provincial, county, or other local governments, e.g., party newspapers and journals, morning and evening newspapers, metropolitan newspapers, radio and TV stations, county media groups, county websites)

- 0: No
- 1: Yes

If Q2 is coded as 1 (State-owned media):

Q2.1: According to the account verification information, which administrative level is this media outlet affiliated with? (Select the lowest administrative level)

- County level and below: County, Autonomous County, County-level City, District, Banner, Forestry Area, Special Zone, Provincial Direct-Managed County/District
- Prefecture/City level: Prefecture-level City, Autonomous Prefecture, League, Deputy Provincial-Level City/District
- Provincial level: Province, Provincial-level City
- Central level

Q2.2: Provname - Please fill in the name of the province where the media is located, e.g., Guizhou Province (贵州省), Shanghai (上海市).

Q2.3: Cityname - Please fill in the name of the city where the media is located, e.g., Shenyang City (沈阳市), Dali City (大理市).

Q2.4: Countyname - Please fill in the full name of the county where the media is located, e.g., Xiapu County (霞浦县), Abag Banner (阿巴嘎旗).

If Q1 is coded as 5 (Government account):

Q3: According to the account verification information, which governmental organization / department is this account affiliated with?

- 0: Government administrative offices
- 1: Government information/news centers
- 2: Government multimedia centers
- 3: Propaganda departments/divisions

- 4: Cyberspace Administration of China (CAC)
- 5: Security apparatus, e.g., police, military, court, prison, or affiliated units such as the local compulsory drug rehabilitation center
- 6: Firefighting system/emergency management system
- 7: Communist Youth League Organizations, e.g., Central Committee of the Youth League, Shenzhen University Youth League Committee
- 8: Culture / Travel, e.g., Tourism Bureau, Scenery Management Committee, Bureau of Culture, Travel, and Tourism.
- 9: Other Government Committees/Offices/Bureaus/Divisions, e.g., Political and Legal Affairs Commission, Ministry of Education, Centers for Disease Control and Prevention.
- 10: Others (non-departmental organizations but affiliated with the government), e.g., Associations for Science and Technology, Women's Federation, Trade Union, etc.

Q3.1: According to the account verification information, which administrative level is this government account affiliated with? (Select the lowest administrative level)

- County level and below: County, Autonomous County, County-level City, District, Banner, Forestry Area, Special Zone, Provincial Direct-Managed County/District
- Prefecture/City level: Prefecture-level City, Autonomous Prefecture, League, Deputy Provincial-Level City/District
- Provincial level: Province, Provincial-level City
- Central level
- Others: governmental organizations or those not affiliated with any administrative level, e.g., Peking University Communist Youth League, police influencer, etc.

Q3.2: Provname - Please fill in the name of the province where the media is located, e.g., Guizhou Province (贵州省), Shanghai (上海市).

Q3.3: Cityname - Please fill in the name of the city where the media is located, e.g., Shenyang City (沈阳市), Dali City (大理市).

Q3.4: Countyname - Please fill in the full name of the county where the media is located, e.g., Xiapu County (霞浦县), Abag Banner (阿巴嘎旗).

B Account Characteristics

Administrative level: We consider central-level accounts to occupy central positions, while provincial, prefecture/city, and county level accounts are deemed peripheral. There are three reasons for this. First, within a bureaucratic hierarchy, central-level departments naturally serve as principals at the center, whereas their local branches act as agents on the periphery. Second, certain central-level entities, such as media outlets, presses, and propaganda departments, have traditionally been at the core of propaganda efforts in China. In the broadcast era, content from the central level was often syndicated by lower levels. Third, central-level bureaucracies in China are generally better resourced than their lower-level counterparts, which means they have more funds to hire personnel and produce content.

Functional bureaucracy: State media includes state-owned newspapers, television stations and programs, radio, website, social media accounts, and state-controlled media organizations. Propaganda departments include propaganda bureaus, government information/news/multimedia centers, and Cyberspace Administration of China (CAC). Government administrative offices include offices at all levels, e.g., the CCP Municipal Committee Office in Baiyin Municipality (中

共白银市委办公室). Security apparatus includes police, military, court, prison, or affiliated units such as the local compulsory drug rehabilitation center. Firefighters include the firefighting system and emergency management system (应急管理系统). Local Communist Youth League include leagues in all localities. Culture / Travel departments include the tourism bureau, scenery management center, Bureau of Culture, Travel, and Tourism, departments of Press and Publication. Other departments include the Political and Legal Affairs Commission, local Centers for Disease Control and Prevention agencies, and local departments of market supervision. Other accounts are non-departmental organizations such as local associations for science and technology and Women’s Federations.

C Video Similarity Analysis and Examples

We applied the PyTorch implementation of ViSiL on each central-local video pair or central-central video pair to facilitate the video-to-video comparison.

If ViSiL similarity score is 0.75 or above, we consider the two videos to be a match (see example video comparisons). We derived this threshold through human validation of 1,000 video pairs. This threshold produced the highest accuracy (0.85) and highest F1 score (0.70).

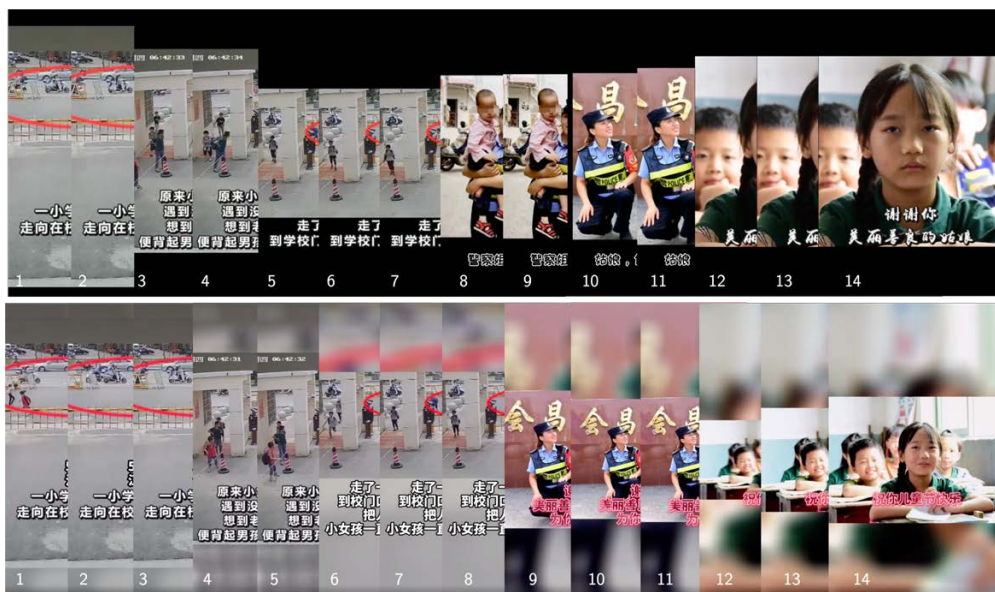


FIGURE A1. ViSiL SIMILARITY SCORE BETWEEN VIDEOS: 0.98

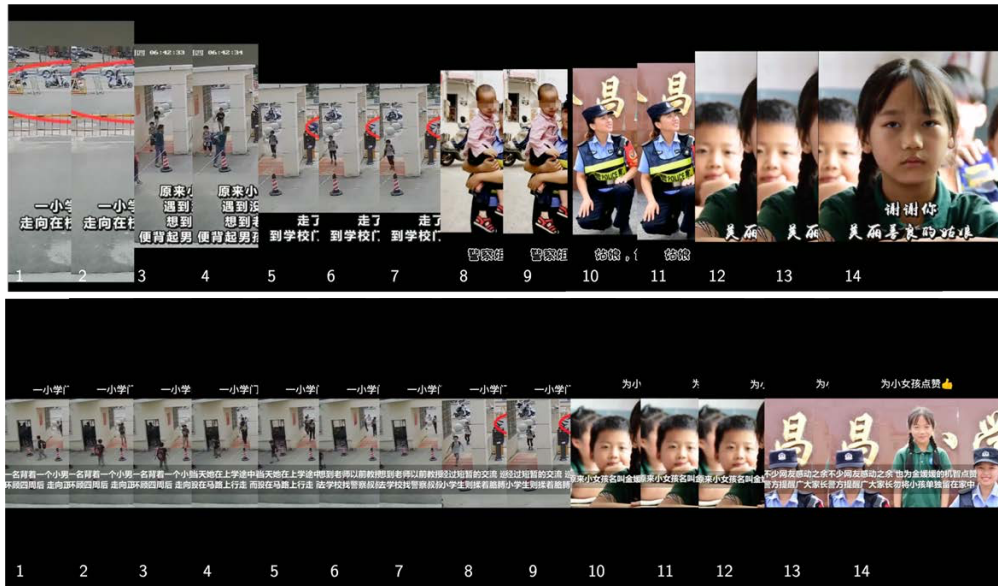


FIGURE A2. ViSiL SIMILARITY SCORE BETWEEN VIDEOS: 0.75

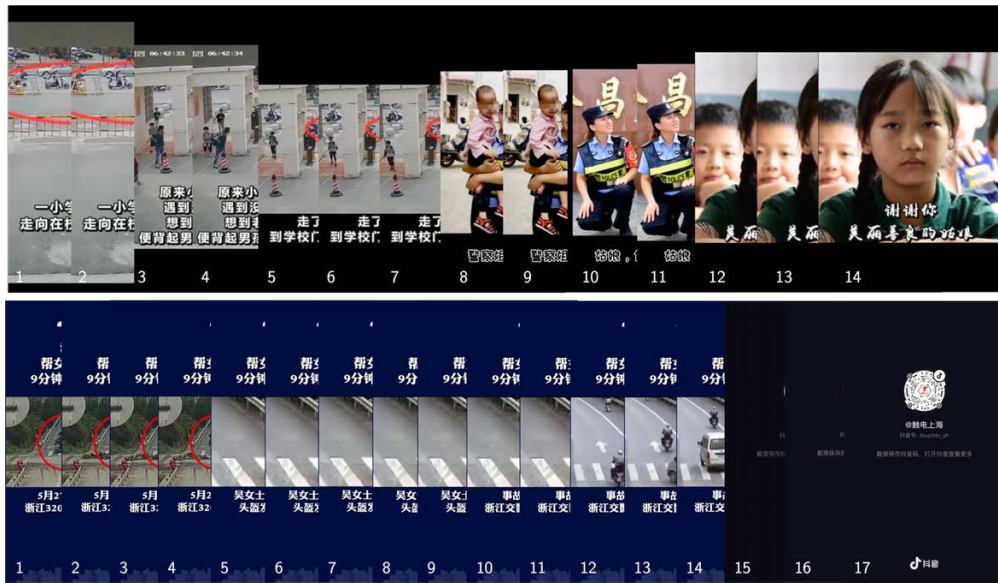


FIGURE A3. ViSiL SIMILARITY SCORE BETWEEN VIDEOS: 0.51

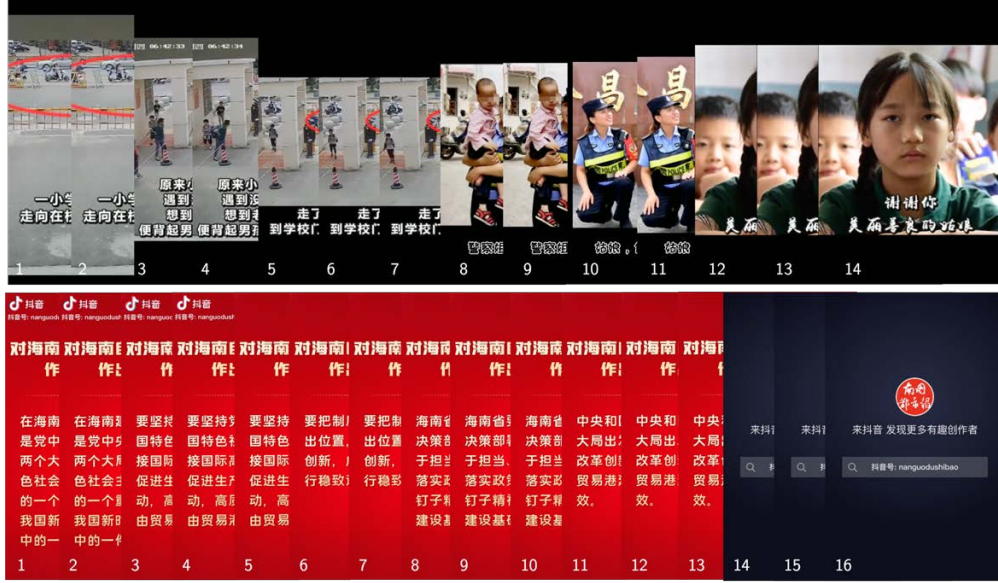


FIGURE A4. ViSiL SIMILARITY SCORE BETWEEN VIDEOS: 0.01

D Video Categories

Party-line: This category includes three sub-categories of videos pertaining to 1) CCP ideology, 2) activities of central-level CCP leaders, and 3) videos related to performance legitimacy. Ideology includes content containing central government or CCP ideology such as videos describing “Marxism ideological mobilization,” “Socialism and revolutionary culture,” and “Core Socialist Values.” This category includes videos packaged as soft propaganda, for example a video titled “University teacher teaches the history of the Party: in emotional part, she burst into tears” (大学教师讲党史：讲到动情之处，她潸然泪下). Content focused on central-level CCP leaders portray these leaders in a positive light and documents their speeches and activities. For example, we include in this category, the video titled “Xi Jinping Xi confers flag to China’s police force and speaks at the ceremony” (习近平向中国人民警察队伍授旗并致训词). The last sub-category of performance legitimacy contains content related to macroeconomic performance and development, such as GDP growth, poverty alleviation, rural revitalization, construction projects at the central and local, and government meetings and routine activities. This content aligns with a prior literature on image building among Chinese officials as the country focused on economic performance (Cai 2004; Pan 2019). An example in this category is the video titled: “A year-on-year growth of 16.8%! 329.8 billion yuan was invested in transportation fixed assets in August” (同比增长16.8%! 8月份，完成交通固定资产投资3298亿元。).

Nationalism: Nationalism, including nationalism propaganda, has received a great deal of attention in studies of Chinese politics (Schneider 2018; Mattingly and Yao 2022; Weiss 2014; Zhang, Liu and Wen 2018). Three sub-categories make up this category. The first covers videos that heightens in-group solidarity, such as videos memorializing the “War of Chinese People’s Resistance Against Japanese Aggression.” The second sub-category includes content describing the scientific or cultural major achievements at the national level, such as the launch of space stations, the exploration of cultural relics, and the innovations of military weapons. The third sub-

category contains content that denigrates out-groups—people, governments, political systems—in another country or region who are portrayed as ineffective, corrupt, unstable, and polarized. For example, one such video is titled “Heartbroken! A 10-year-old girl broke down and cried after hearing the #Floyd incident: ‘I may die because of my skin color’.” (心碎！美10岁女孩听到#弗洛伊德事件后崩溃大哭：“我可能会因为我的肤色而死”) .

Moral society: Moral society content focuses on the good in people’s daily lives and indirectly implies that the regime is responsible for producing such outcomes (see example videos with frames in Figure A5. This category contains three sub-categories that emphasize the good in people’s daily lives: 1) morality of officials and security personnel, 2) morality of ordinary people, and 3) punishment for immoral behaviors. The morality of officials / security personnel category includes content shows how Chinese government officials, police officers, firefighters, soldiers at different administrative levels are helping ordinary people and society as a whole. For example, the video “Zhongshan police cracked a big case involving 200 million!” (中山警方破获大案，涉案金额2亿！) shows the competence of the police in the Zhongshan City. Another video, “Under the hailstorm, the hug of the policeman is so warm” (漫天冰雹下，警察蜀黍的怀抱好温暖), shows how kind and personable police officers are. The second sub-category focuses on interactions between ordinary people (rather than between representatives of the regime and the public), showing how ordinary people conform to social ethics, professional ethics, family virtues, and personal virtues, together contributing to a moral society. For example, the video “14-year-old boy donates his bone marrow to save his father!” (14岁少年捐髓救父！) shows this dynamic within a family. The video, “Respect! The bus driver suffered a heart attack and stopped the bus before falling into a coma!” (致敬！公交司机突发心梗，昏迷前全力停车！), highlights everyday heroism.

Announcements & Guidance: This categories includes information provided by the government with relevance to people’s everyday lives, including government announcements, practices, policies, as well as suggestions for how people should go about their lives. This type of content includes videos publicizing beneficial local policies, for example, “Pensions for retirees rose by 4.5%!” (退休人员基本养老金涨4.5%！), as well as actions by the government that will have broad impact, e.g., “Notice! Power cuts will happen in the following places in Xuanwei! Please inform others” (注意！宣威这些地方即将停电！请互相转告). Finally, content in this category also includes knowledge and general advice, such as the video “Is regular consumption of MSG harmful to the body?” (经常食用味精会对身体有害吗？).

Entertainment: This category includes three sub-categories of videos: 1) entertainment content; 2) local advertising content; and 3) negative sensational content. Examples include videos such as “Disco dance of an old man in a Hebei park” (河北大爷公园蹦迪舞姿). Local advertising content includes content promoting local sights, foods, resources, or any local claims to fame. For example, the video “The taste of childhood in Dancheng” (丹城小时候的味道) shows how people are enjoying Dancheng street foods. The negative sensational content includes negative news or events that are appealing or threatening, such as “Five dead in a store fire accident in Luyi” (鹿邑一门店发生火灾致5人死亡).

Other content: Finally, we have a residual category that includes social news that are not negatively sensational nor entertaining, such as “U.S. study: New coronavirus may have mutated to make humans more susceptible to infection” (美研究：新冠病毒或已发生突变，使人类更容易受感染); or other videos such as commercial advertisements and lottery drawings.

Video A



Video B



Video C

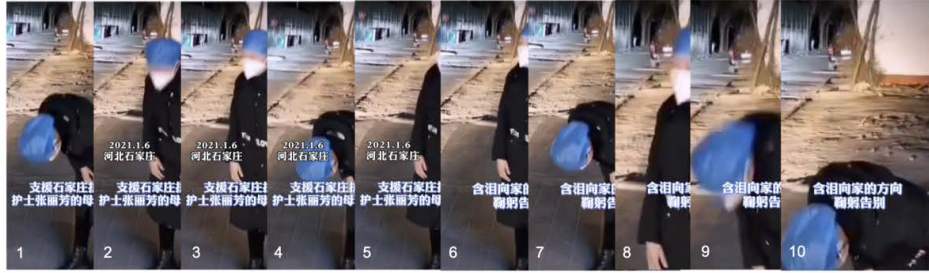


FIGURE A5. MORAL SOCIETY VIDEO EXAMPLES

Note: Each video was segmented into frames by second.

E Additional Results

E.1 Regime-affiliated Accounts

Figure A6 shows the following relationships between accounts in our dataset by administrative level. The vertical axis indicates target accounts (who is followed) at each administrative level, and the horizontal axis indicates source accounts (who is doing the following) at each level. The diagonal cells from the lower left corner to upper right corner reflect the proportion of accounts of that level followed by accounts at the same level within each administrative level (e.g., central accounts follow central accounts; local accounts follow local accounts). The off-diagonal cells indicate following relationships across administrative levels. For example, the cell (Central Accounts, Province Accounts) represents the proportion of central accounts that follow at least one province account.) The denser the following relationship, the darker the cell. The most dense following relationships fall along the diagonal. This suggests that government accounts are more likely to follow accounts at the same administrative level than across different levels and that accounts are not organized hierarchically (in an hierarchical organization, we would observe denser following relationships from lower administrative levels to upper administrative levels under a hierarchical structure—i.e., the bottom four cells would need to be darker than other cells).

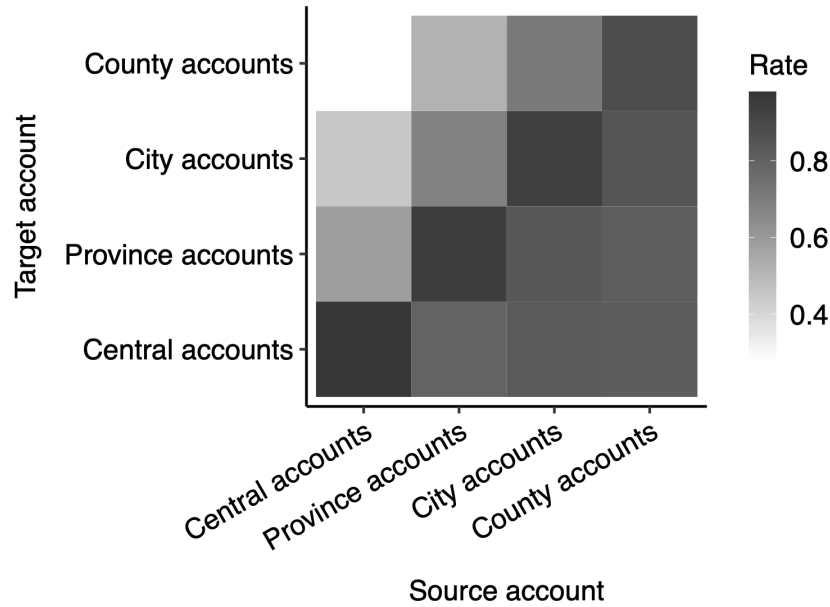


FIGURE A6. PROPORTION OF ACCOUNTS AT EACH LEVEL THAT FOLLOW ACCOUNTS AT DIFFERENT LEVELS

E.2 Information Flow

Figure A7 which shows the percentage of central videos that have local matches on each sampled day, indicates that a minority of central videos have local matches. Table A1 shows the total number of local-level videos entered in video similarity analysis and the percentage of local videos with central matches, demonstrating that few local videos have central matches.

Local Admin Level	Number of videos	%Videos with central matches (0.75 threshold)
Province level	832,339	10.8%
City level	1,240,972	10.0%
County level	956,834	10.0%

TABLE A1. PERCENTAGE OF LOCAL VIDEOS WITH CENTRAL VIDEO MATCHES

To go a step further and analyze what type of content from local levels match that of the center, we examine the three dates where local-level matches of central level videos are highest, as well as an additional date—April 29, 2021 when China’s Tianhe space station launched—when we might expect to see more top-down dissemination of content (see Table A2). For the Tianhe space station launch, we qualitatively analyzed all local-level videos to determine what proportion of video match central-level video, and for the other three dates, we watched the most copied central videos as well as a sample of local videos. Two of the dates—July 12, 2020 and May 22, 2021—are dates with emergent events, by which we mean events that were not organized by the CCP. For the other two dates, events are those spear-headed and potentially coordinated by the CCP.

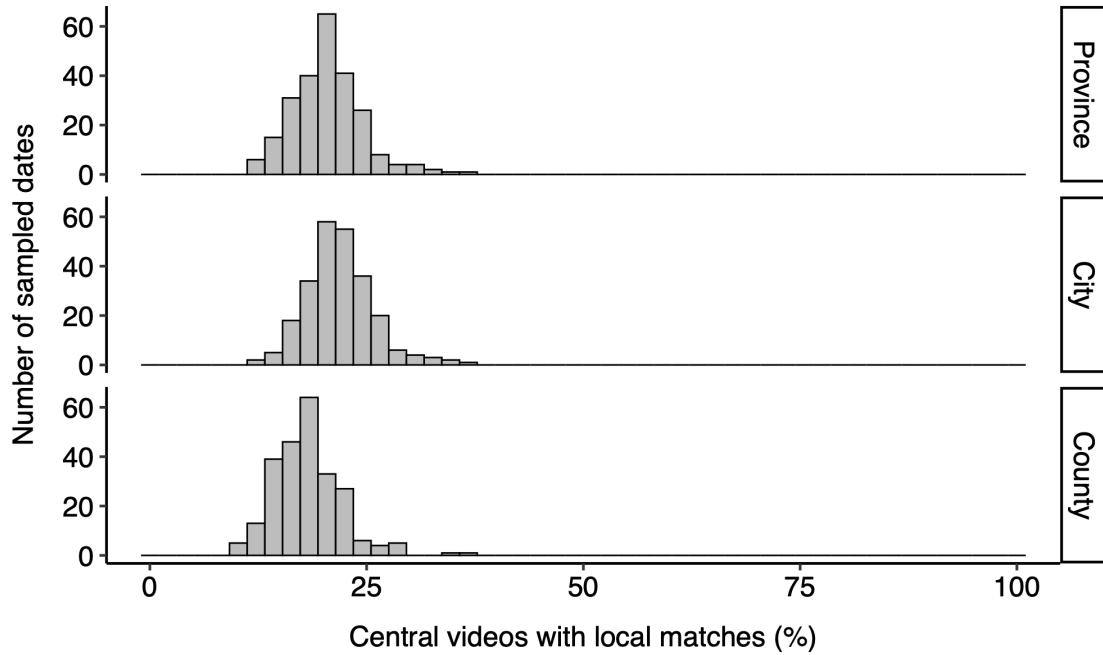


FIGURE A7. HISTOGRAM OF CENTRAL VIDEOS COPIED BY LOCAL-LEVEL ACCOUNTS

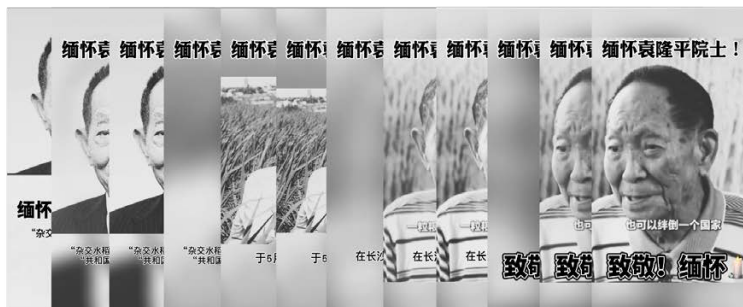
Event	Date	Attribute	Gov't level	% of Matched videos
Multiple accidents	Jul 12, 2020	Emergent	Province	19.8%
			City	23.3%
			County	29.6%
Yuan Longping's death	May 22, 2021	Emergent	Province	24.1%
			City	29.7%
			County	36.9%
Commendation conference for national response to Covid-19	Sep 8, 2020	CCP-led	Province	20.0%
			City	21.7%
			County	25.1%
Tianhe core module of the Tiangong space station launched	April 29, 2021	CCP-led	Province	9.6%
			City	7.7%
			County	7.5%

TABLE A2. PERCENTAGE OF LOCAL VIDEOS MATCHED WITH CENTRAL VIDEOS BY EVENT

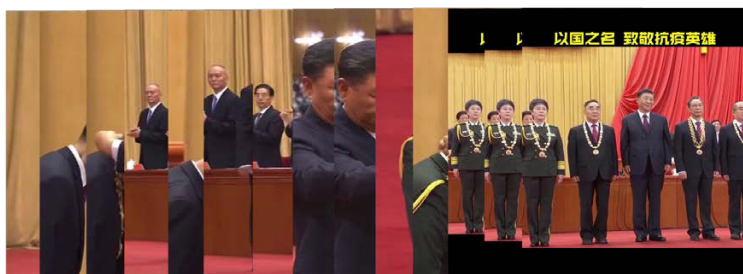
On July 12, 2020, when nearly 30% of videos produced by county-level accounts match content produced by central-level accounts, several events occurred. These include a 5.1-magnitude earthquake in Tangshan, Hebei province, a flood in Hubei province, and a bus crash in Anshan, Guizhou province. Three out of the five videos released by the high-profile, central-level Douyin account of *People's Daily* and three out of five videos released by the Douyin account of another central-level flagship media outlet, CCTV News, were about these events. In addition to providing context about these events and showcasing government actions, videos focus put a positive spin on these disasters. For example, the Douyin account of Global Times, another central-level flagship

media outlet, released a video, which gained over 60,000 likes, entitled “A 20-year-old soldier is celebrating their birthday on the flood control embankment. You’ve been working so hard. Happy birthday!”

Video A



Video B



Video C



FIGURE A8. VIDEOS CREATED BY THE CENTRAL-LEVEL

Note: images based on a frame being extracted from the video every second.

On May 22, 2021, when nearly 40% of videos produced by county-level accounts and over 30% of video produced by city-level accounts match content produced by central-level accounts, Yuan Longping, a Chinese agricultural economist known as the “Father of Hybrid Rice,” passed away at age 91. This emergent event triggered heavy coverage and mourning by state media and government departments at all levels. Two out of the three videos released by People’s Daily and four out of six videos released by CCTV News were about Yuan’s death on May 22. A few central-level videos were extensively copied by local-level accounts, including Video A in Figure A8, a video created by the *Global People* (环球人物), an account managed by People’s Daily, celebrating Yuan’s achievements that appeared 602 times in local-level accounts in our dataset.

Turning to CCP-led events, on September 8, 2020, the Commendation Conference for China’s National Response to Covid-19 was held at the Great Hall of the People in Beijing. Xi Jinping awarded medals to healthcare experts such as Zhong Nanshan and Zhang Boli, and delivered a

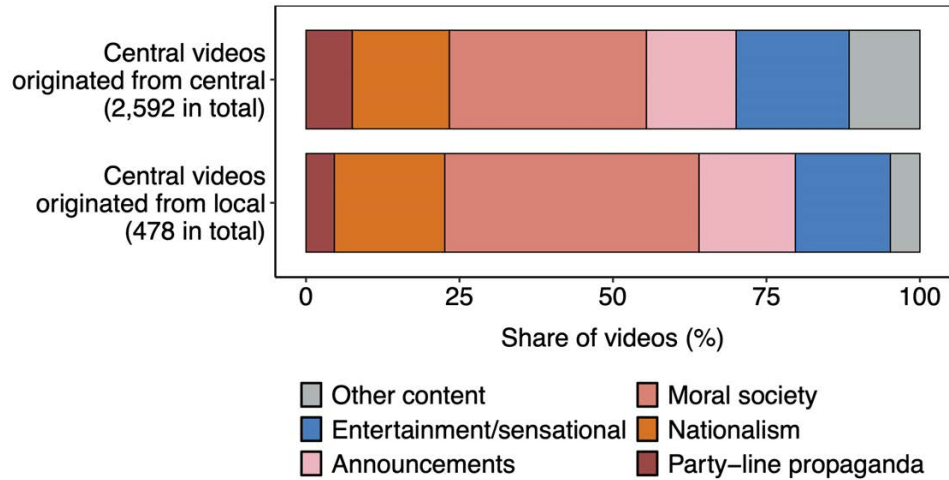
formal address. On this day, nine videos released by People’s Daily covered the event. For example, one video (see Video B in Figure A8) captures the award ceremony where each recipient walks up to Xi to receive their medal. The video ends with a group photo of all awardees with Xi, accompanied by the caption, “In the name of the nation, we salute the heroes of the fight against the pandemic.” (以国之名，致敬抗疫英雄). Some local Douyin accounts used clips of this People’s Daily video, such as Xi awarding medals, to create their own videos. However, other local accounts used the original video in its entirety, only adding captions to praise and memorialize those who were recognized at the event.

Finally, on April 29, 2021, China launched the core module of its Tianhe space station. This is a CCP-led, mega achievement highly covered by central state media, which we might have expected lower-level accounts to copy in a traditional broadcast model. On April 29, three out of the four videos released by People’s Daily Douyin account and four out of the six videos released by CCTV News Douyin account were about the Tianhe launch. One video example (Video C in Figure A8) captured the rocket’s launch from countdown to ignition. The video begins with Liao Guorui, the launch commander at the Wenchang Spacecraft Launch Site, counting down, and then shows different angles of the launch, culminating with a powerful roar. High-energy background music emphasizes the sense of pride in this national achievement. After our team of research assistants watched 17,887 videos produced by local-level accounts on this day, we only found 744 videos (4%) covering this event. Among the 6,186 local-government accounts that posted propaganda content on April 29, only 577 accounts reported this event. This is striking because the Tianhe launch is a highly managed pseudo-event, meaning that it is planned and scripted by the regime, making it an event that is easily re-broadcast. In addition, compared with the central state media Douyin videos, most of which present live broadcasts of the launch, videos by local accounts are more diverse. For example, one province-level state-media account, Sichuan Guancha (四川观察), managed by Sichuan Province Television, posts a video showing how a kindergarten girl wanted to give her lunch to the astronauts after watching the live launch. This video also appears on two other city-level accounts and one county-level account. Another video created by Xiangtan Zaixian (湘潭在线), the Douyin account managed by the Xiangtan Daily Newspaper, shows how the ultra-high-temperature-tolerant cables created by a Xiangtan company contributed to the successful launch of the Tianhe Space Station. The diversity of the content created by local accounts under the topic of the Tianhe Launch provides further evidence original content creation by lower levels.

E.3 Content Categories

One may be concerned that higher engagement with content copied by central accounts from local accounts occurs because these central accounts select entertainment content rather than propaganda to boost engagement. To explore this possibility, we analyzed 3,070 videos produced by central accounts from within our random sample of 18,571 hand-labeled videos. Figure A9 reveals that the content central accounts copied from local accounts contains more propaganda, especially moral society content, than the original content from central accounts. This indicates that central accounts are not simply copying entertainment content from local levels, but propaganda content.

Figure A10 breaks down the video category by an account’s functional affiliation. Figure A10 shows a clear dominance of content pertaining to moral society among firefighter accounts (72%) and security apparatus accounts (61%). Communist Youth League accounts also have a high pro-



Note: the 2,592 central videos originated from central accounts include both videos with local matches and videos without local matches.

FIGURE A9. CONTENT CATEGORIES BY CENTRAL ORIGIN VS. CENTRAL VIDEOS OF LOCAL ORIGIN

portion (43%) of videos portraying a moral society.

Figure A11 shows the video category for videos from central-level compared to local-level accounts.

Figure A12 shows the video category for videos from security and firefighting account compared to culture and travel related accounts.

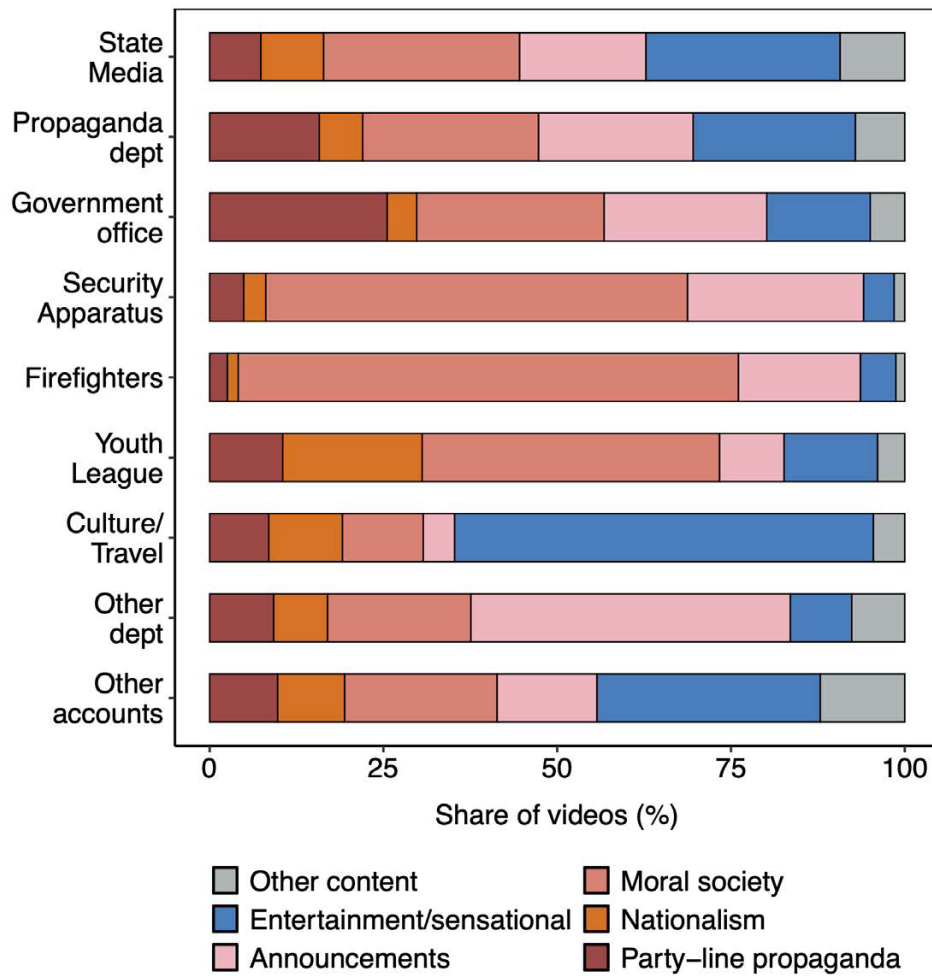


FIGURE A10. CONTENT CATEGORIES BY ACCOUNT TYPE

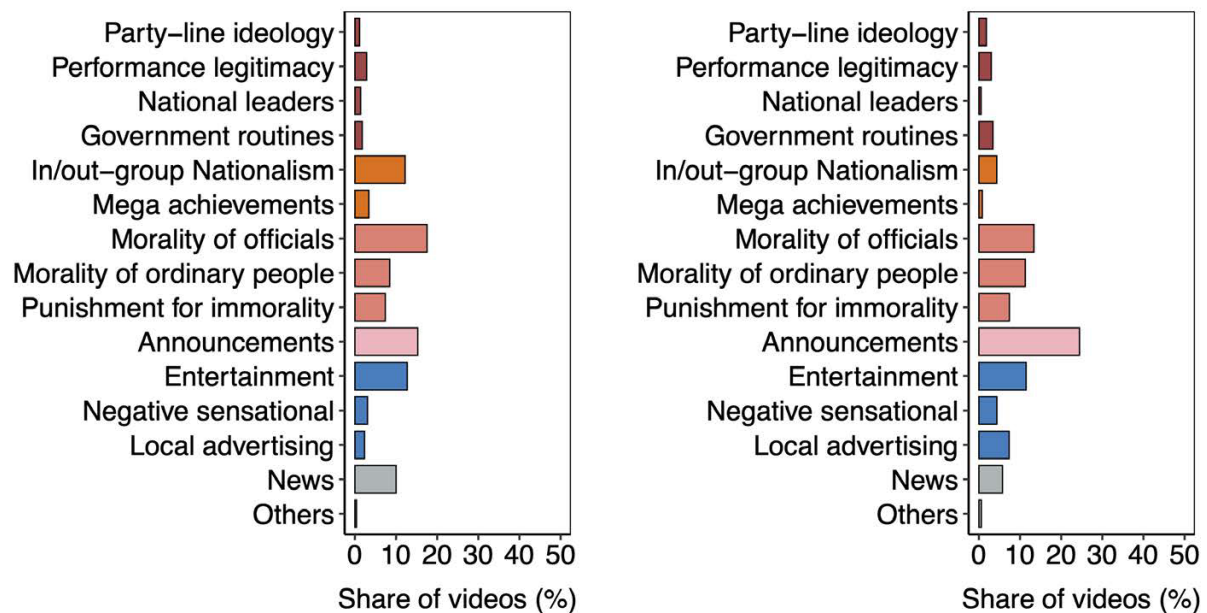


FIGURE A11. DISAGGREGATED CONTENT CATEGORIES FOR CENTRAL-LEVEL VIDEOS (LEFT) AND LOCAL-LEVEL VIDEOS (RIGHT)

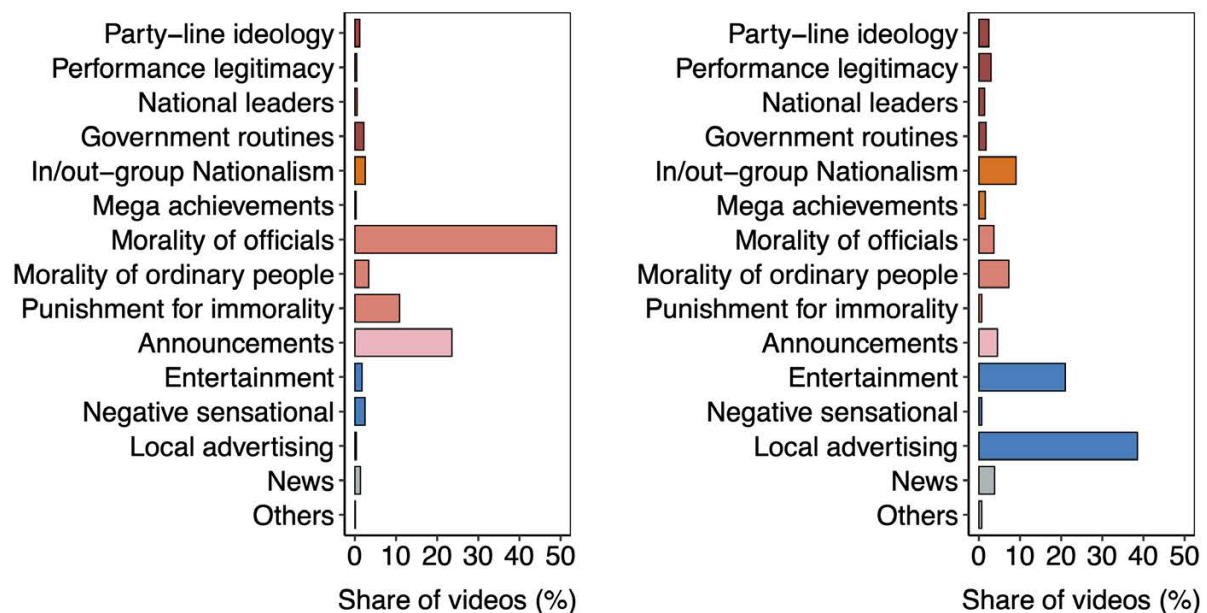


FIGURE A12. DISAGGREGATED CONTENT CATEGORIES OF SECURITY/FIREFIGHTER VIDEOS (LEFT) AND CULTURAL/TRAVEL VIDEOS (RIGHT)

E.4 User Engagement

Table A3 shows median engagement with videos in different content categories and Table A4 shows the mean engagement with videos in different content categories.

Video category	Number of likes	Number of comments	Number of reshares
Party-line propaganda	80	1	4
Nationalism	542	6	7
Moral Society	417	8	6
Announcements/policies/guidance on life	105	2	5
Entertainment/sensational	195	6	5
Other content	140	3	4

TABLE A3. ENGAGEMENT WITH VIDEOS BY CONTENT CATEGORY (MEDIAN)

Video category	Number of likes	Number of comments	Number of reshares
Party-line propaganda	7,878.5	106.7	143.8
Nationalism	37,505.5	428.3	249.7
Moral Society	16,747.6	379.1	198.0
Announcements/policies/guidance on life	3,421.6	122.6	221.4
Entertainment/sensational	6,765.3	214.0	184.2
Other content	7,675.9	219.1	165.0

TABLE A4. ENGAGEMENT WITH VIDEOS BY CONTENT CATEGORY (MEAN)

Figure A13 shows likes, comments, and reshares for regime-created trending videos compared to non-regime, non-propaganda videos, indicating that engagement is similar for likes and reshares. Regime-created videos have lower comments than non-regime, non-propaganda videos.

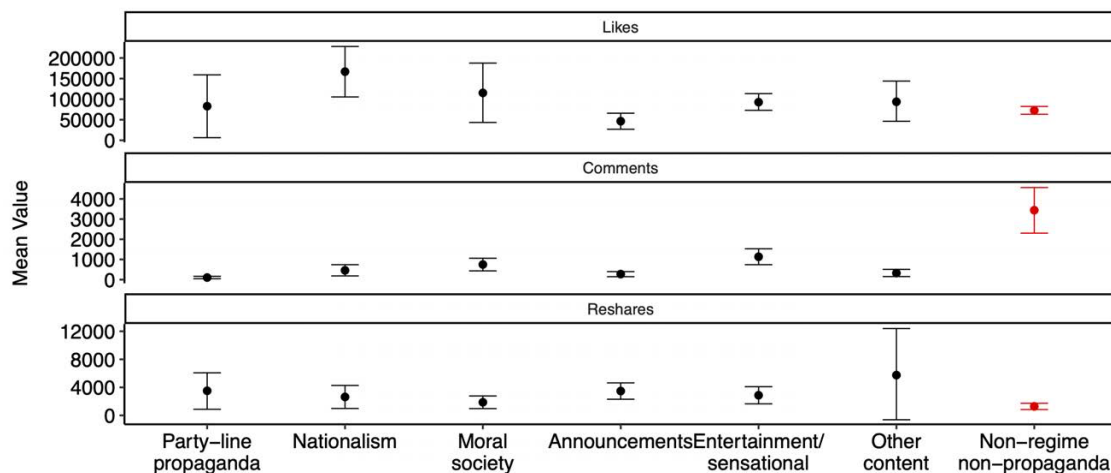


FIGURE A13. ENGAGEMENT COMPARISON BETWEEN REGIME-CREATED TRENDING VS. NON-REGIME, NON-PROPAGANDA TRENDING VIDEOS

E.5 Diverse Interests of Regime Account Followers

Figure A14 displays a treemap of keywords representing on categorization of the interests of a sample followers of 53 regime-affiliated account. The size of each rectangle corresponds to the proportion of users in the sample with that interest. The treemap is generated as follows. First, we

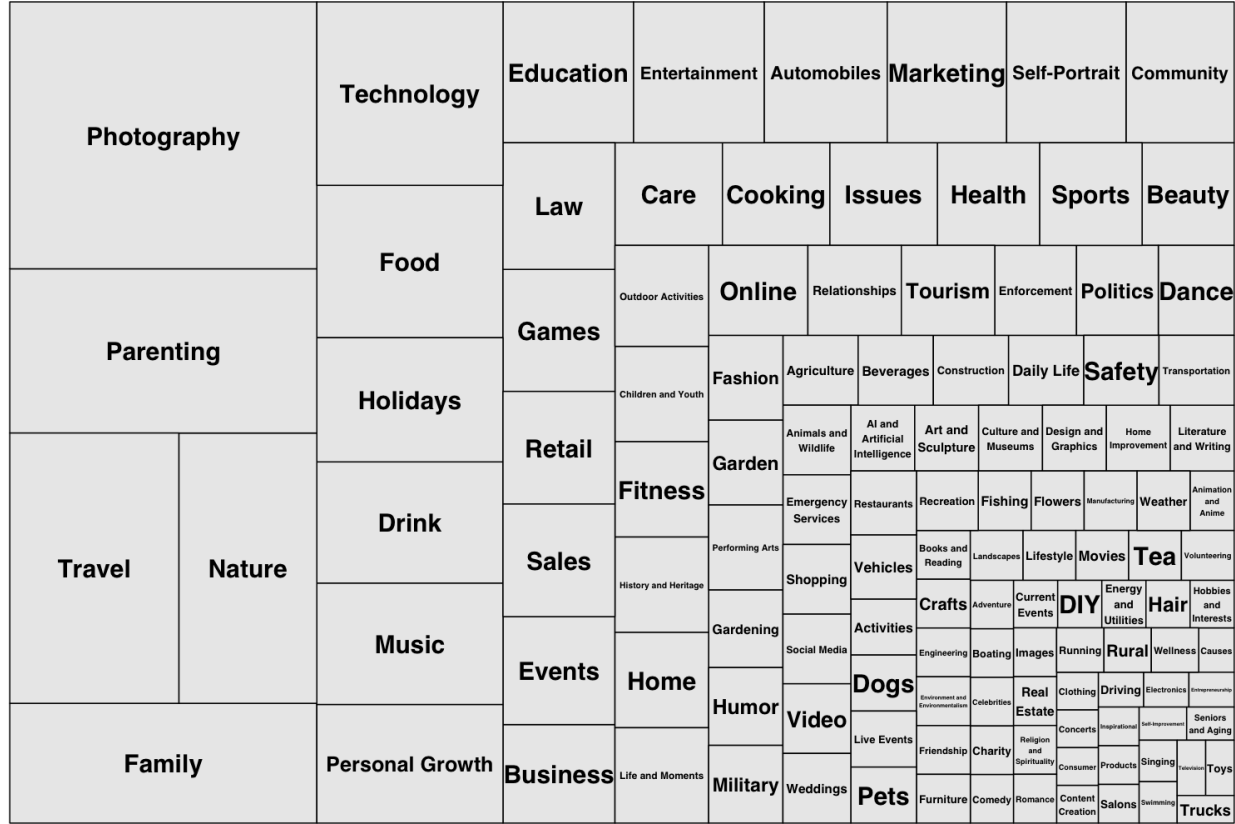


FIGURE A14. INTERESTS OF FOLLOWERS OF REGIME-AFFILIATED ACCOUNTS

randomly sampled 110 regime accounts, within which 53 accounts have observable followers on Douyin. Then, for each account, we randomly selected 10 followers, resulting in a sample of 465 users who follow regime accounts and whose Douyin account is publicly viewable. Second, one Mandarin-speaking research assistant reviewed the timeline of each user in the sample, documenting videos posted and liked by each user and describing each user's interests in Chinese. Third, we translated these descriptions using the DeepL API, and cleaned the data by removing unnecessary information. Fourth, we created mutually exclusive, comprehensive, and focused categories/tags based on Facebook's interest list,^{A5} recording the tags for each user. We then merged similar categories, ensuring mutual exclusivity and that each category represented at least three users, resulting in 123 categories. Finally, we generate a treemap based on these mutually exclusive categories.

It is important to note that there are various ways to create mutually exclusive categories of interests, and each of the categories shown in Figure A14 may represent multiple interests. In other words, users we have identified as sharing an interest in photography may not all be in one or the

^{A5}<https://interestexplorer.io/facebook-interests-list/>

same online niche community. Within this category of photography, there is travel photography such as personal moments of children walking or traveling, scenic views such as cherry blossoms. There is also self-portrait photography including selfies as well as personal portraits enhanced with filters or AI effects, often shared as part of daily activities, including themes of literature, art, and food. This category also includes nature photography capturing natural landscapes and wildlife, alongside family moments like selfies with spouses or nature-themed photos, as well as family photography focuses on family life, including moments such as driving with loved ones or documenting weddings. Finally, photography includes event photography showcasing special events such as weddings and festivals, along with more casual everyday moments such as celebrity sightings. Similarly, within the parenting category, users' interests are widely varied. Content ranges from daily family routines, with videos of children playing, building, interacting with family, to children's celebrations, such as birthdays or holidays. Videos in the parenting category also document children's growth and milestones, such as school events and first steps, and capture family bonding activities, such as outings to zoos or vlogs about family adventures. Additionally, parenting videos include content related to children's education and learning, highlighting extracurricular activities, tutoring, and moments at school. Altogether, this support the conclusion that followers of regime-affiliated accounts have diverse and fragmented interests.

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