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Fans' Practice of Reporting: A Study of the Structure of Data Fan Labor on Chinese Social Media

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Focusing on pop fans' media practices of collective reporting, this study identifies fans' role in the Chinese idol industry from the perspective of digital labor and the distribution of power within online fan communities. By analyzing 1,956 Weibo posts from eight online fan communities, this study found that the social influence of China's fast-growing idol industry coincides with the rapidly advancing digital economy in which a hierarchical system exists in online fan communities. Fans who possess greater digital skills and industry knowledge have taken advantage of social media to become leaders in their communities to organize fan labor, and the efforts of ordinary fans are less noticeable and do not result in appropriate compensation.

Keywords: social media, China, Weibo, digital labor, data fan, fandom

In 2020, China's entertainment and media market was worth about US$358.6 billion (Fan, 2021). As a branch of the lucrative entertainment industry, the idol industry has had a significant influence on the economy, culture, and people's daily life. An idol is a type of celebrity marketed for the curated public image in Chinese pop culture who generally participates in music, film and television, reality shows, advertising, and other subfields within the entertainment industry simultaneously (Zhang & Negus, 2020). Devoted fans have been the driving force of the idol industry. In the context of social media, fans' devotion produces a massive amount of online data and traffic, which are used to measure the popularity, influence, and commercial success and failure of a celebrity (Fu & Zhang, 2018).

In this article, we develop the notion of "data fans," which refers to those fans who deliberately generate online traffic and data for their idols to gain online traction on China's social media. The article begins with a review of the recent studies on the Chinese idol industry and then builds a framework based on the literature in the field of digital labor, organizational communication, and fandom studies. Fans' practice of collective reporting on social media is also located in the Chinese Internet history, China's digital economy and governance, and the discussion on the evolving online activist culture in China. Throughout this article, "social media reporting" refers to tactically framing other users' online content as violating social media guidelines. Focusing on this novel case, this study asks the question: How do fan leaders influence

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the practice of collective reporting and hence, the organization of fan labor? And how does the practice of reporting in online fan communities reconfigure the performance and meaning of digital labor in China's online idol industry? By analyzing 1,956 posts generated by eight fan leaders and their followers on Sina Weibo, one of the most popular social media platforms in China, we identify fans' skills in media use and organizational communication and discuss the hierarchical structure of fan communities and the rewards for fans' voluntary work.

This study contributes to the theory building of digital labor. Although there is growing attention to the reporting mechanism on social media (e.g., Marzano, 2019; Naab, Kalch, & Meitz, 2018), viewing it from a perspective of the affective inputs from organized online communities offers a fresh perspective to rethink the role of fans, and social media users in general, in the broader data economy.

Literature Review

With the development of digital technologies, social media have become a popular platform for fans to carry out online collective activities to support their idols (Abidin & Baudinette, 2020). Current literature generally understands that digital media have capitalized on fans' affective expressions and profited from the creative resources invested by fans (Baym & Burnett, 2009; Scholz, 2013). In China, online fan communities expand the scope of this kind of digital fan labor and have contributed huge economic benefits to the idol industry (Fu & Zhang, 2018; Jiang, 2018). An understanding of data fans, which is a concept this article develops, needs to be located within China's idol industry over time.

The Chinese Idol Industry

In the Chinese context, idols are considered to be in a profession similar to actors or singers. Learning from the idol-training mode and the pretty-boy or -girl aesthetic of Japan and South Korea (hereafter "Korean"; Yin, 2020; Zhang & Negus, 2020), Chinese idols are usually young celebrities with attractive appearances, most of whom have become famous as girl- or boy-group members. One distinguishing feature of idols is that they tend to heavily rely on their loyal fan bases, and fans are usually generous with their money to support idols. It is estimated that the total size of China's idol industry may exceed US$20 billion by 2020 (ENData, 2021).

The Chinese idol industry is part of the historical development of the East Asian idol industry (Kim, 2018; Shin, 2009). Since 1996, the Korean music idol industry has exported many entertainment products to China (Chen, 2017), however, Korea's Terminal Altitude Area Defense system deployed in 2016 triggered diplomatic tensions between the two countries. In response, the Chinese government imposed strict restrictions on Korean entertainment products and celebrities who were active in China's cultural market (Sanchez, 2016; Wang, 2017). As a result, some Chinese idols working in Korean entertainment companies returned to China, and these Chinese-speaking performers who received Korean-style training became noticeable and satisfied the tastes of the consumers.

In the meantime, the rapid development of digital technologies in China around the 2010s has provided new platforms. The emergence of domestic low-cost smart mobile devices such as Xiaomi has

reduced the cost of Internet use. The permeation of smartphones and mobile Internet has made fans' community formation and idol worshipping more convenient (Wang, 2017). Start-ups in the information and technology industries (Jia & Winseck, 2018) have also contributed to the growth of social media sites so that the relevant information about idols is rapidly spread, and fans have more timely interactive channels with idols and richer means to support idols. Therefore, the mobile Internet has enabled new business strategies that rely on the generation of data and online traffic.

Figure 1. Screenshot of Lu's (2014) Sina Weibo microblog taken in August 2020.

Known as "data traffic stars" (*liuliang mingxing*; Yin, 2020, p. 478), former K-pop band members with huge and devoted fan bases have marked the formation of Chinese idol industries. The organizational capabilities of these motivated Chinese fan communities are astonishing. For instance, in October 2014, Lu Han, a Chinese idol who broke off his contract with Korea's SM Entertainment Company, posted on Weibo: "I am home" (Figure 1; Lu, 2014). After a collective activity called by his fan community, this post received 1 million comments in 149 minutes (Jiang, 2018). Also, the purchasing power of fan communities is strong. For example, during the Idol Producer, a Chinese boy-group reality show broadcasted in 2018, nearly 50 fan clubs raised money in virtual communities to support their idols, and a conservative estimate of the amount of money raised by fans was more than US$3.1 million (Fu & Zhang, 2018). This case points to not only appreciating the economic imperatives of online fan communities but also the technological affordances of social media platforms in China.

Organizing Online Fan Communities in China

The spectacular growth of the idol industry in China has been accompanied, and underpinned, by a similar surge in the popularity of online fan communities. Online fan communities have historically formed around topics about celebrities and users' common interests from discussion forums to social media platforms, which are defined by qualities of high productivity, high cohesion, and strong execution of social network formation (Whiteman, 2009).

Existing literature in the field of organizational communication has suggested that the formation of collective expression from virtual communities would also be shaped by the affordances of social media (Flyverbom, Leonardi, Stohl, & Stohl, 2016; Lazar, Ribak, & Davidson, 2020; Schrock, 2015). The visibility (Flyverbom et al., 2016) and mobility (Schrock, 2015) of social media enable users to access the content from different locations and devices, presenting themselves through the exchange of audio texts and visual content and setting up different levels of accessibility for others. Also, social media can enhance the connections between individuals and others and allow users to track the location and retrieve information

about other users (Flyverbom et al., 2016; Schrock, 2015). Based on the strong ability to execute strategies and the quick response of Chinese online fan communities to their idols (Fu & Zhang, 2018; Jiang, 2018), it can be inferred that fans have taken full advantage of the visibility and mobility of social media, or at least been proficient in some of the functions of social media. Following this literature, this study tries to further discuss media affordances in conjunction with fan communities.

In addition to the affordances of social media platforms, these large online fandom campaigns in China are usually voluntarily led by devoted fans with financial strength, organizational skills, and copious amounts of followers (Fu & Zhang, 2018; Jiang, 2018). In Chinese fan communities, fans at the top of the pyramid are called *fentou* (fan-leaders; Wang, 2018), which suggests that all fans are not "equal" when it comes to communication power, and they are constantly negotiating across different sets of power relations in their online experience. Therefore, this article sets out to identify the leaders in online fan communities and asks the following: How do fan leaders influence the media practices of their followers and hence, the organization of fan labor?

Data Fan Labor

Free labor has historically been understood as voluntary and unwaged production of value (Terranova, 2012). In recent decades, the increasing prevalence of digital labor that produces nonmaterial products on Internet platforms has raised wide attention (e.g., Casilli, 2017; Postigo, 2016; Scholz, 2013). Although digital labor tends to be less visible because of its immaterial nature (Lazzarato, 1996), it is not just the plight of knowledge workers. On digital media, individuals' affective expression has become the free labor for capitalist business practices (Scholz, 2013).

As for fans, the industry would transform their emotions into elements of commercial value and convert their consumption desire and loyalty into quantitative indicators for commercial transactions (Jenkins, 2008). In China's Internet environment, fans' inputs might be not limited to money, emotion, or the creation of cultural products that researchers described in previous fandom studies (e.g., Hills, 2016; Milner, 2009; Sandvoss, 2011). Online traffic, or data, has become a central factor in defining fans' categories. Even though "data fan" is a new notion, the emergence of this category coincides with the defining characteristic of online fandom, that the free labor of time and effort has always been devoted to sustaining the fan practice (Baym & Burnett, 2009).

"Data fan," originally a slang term for China's online fan communities, has become a common term that refers to those dedicated to intervening in idol-related statistical data displayed on digital platforms, such as online music sales, video views, and chart rankings (Yin, 2020). According to De Kosnik (2013), fans, as free labor, are constantly providing fresh comments, videos, news, stories, and art. In an era of algorithm and data economy, fans are increasingly aware of the data-tracking and algorithmic operations on digital platforms and believe that the data generated online will serve as metrics reflecting the commercial value of an idol for advertising and professional development opportunities (Yang, 2020). Data fans are engaging in a novel form of digital labor, attempting to intervene in and manipulate the volume and flow of data that contribute to their idols' online traffic. Various charts and lists on popular online platforms, for

example, Sina Weibo's Superstar Chart (Figure 2), are a representation of the visualized data competition among fan communities.

Figure 2. Screenshot of Sina Weibo's Superstar Chart for mainland China taken in October 2020.[1]

"Anti-criticism" is one of the several fan-initiated data-manipulating practices on social media, which focuses on reducing the impact of critical posts. Reporting is the centerpiece of "anti-criticism" activity, which mainly includes urging social media users who publish negative comments about idols to delete posts and report them as violations to the platform (Hu, 2020). Although reporting is commonly used as a mechanism to curb posts that breach terms of service or community standards by platform operators or regulators (Marzano, 2019), in a fan community, social media reporting enables ordinary users to be

[1] The "Superstar Chart" feature of Sina Weibo was canceled in 2021, so this webpage is no longer accessible.

voluntary content moderators. Commercial content moderation (CCM) workers generally curate site content based on a set of values and moral codes to protect the digital presence of media platforms (Roberts, 2016). Similarly, in China's fan communities, reporting functions as a tactical form of exerting control by fans over how an idol is publicly represented and understood. Therefore, this article poses the following research question: How does the practice of reporting in online fan communities reconfigure the performance and meaning of digital labor in China's online idol industry? Overall, this article examines a form of digital labor, fan labor, which is driven by the development of cultural economy and communication technologies and explores the power relations within this group by focusing on one of their specific media practices: collective online reporting within the fan communities of Chinese online idol industries.

Locating the Practice of Reporting in China and Users' Activism

The practice of reporting to eliminate dissent might be traced back to ancient China, where it served both as a crucial tool for social and political governance and as a means for individuals to voice personal grievances. For example, in the Eastern Han Dynasty (25–220 AD), *feishu* (flying letters), an anonymous reporting letter, was used as a tool of public opinion in the struggle for power and profit within the ruling class (Huang, 2007). However, false accusations were common, and the ruling class was always the ultimate beneficiary (Bai, 2016). This may also evoke memories of the 1966–1976 Cultural Revolution in China when the government was encouraging mutual reporting as a form of a peer-monitoring mechanism to ensure ideological security. This caused people to use law-abidingness as an excuse to snitch wantonly, which led to manifold harm and long-lasting social impacts (Wu, 2016).

Although reporting in China has traditionally been used as a tool for maintaining the status of the authoritarian class through ideological restraint, with the advancement of media technologies, new opportunities have arisen for Chinese people to engage in social activism (Yang, 2009). According to the Communist Party of China News, the government views social media reporting as a tool to maintain ideological security and prevent any serious influence on the socialist mainstream ideology (Li, 2015). However, it has been widely used for alternative purposes. As reporting allows people to exercise partial jurisdiction over others (Q. Liu, 2019) when people are involved in disputes with others, it is easy for them to think of exerting pressure on others through the intervention of public power to meet their private demands more efficiently and cheaply (Zhao, 2019). An alternative practice of reporting has been created as a strategy in skirmishes; meanwhile, it is almost impossible for people at the grassroots in China's Internet landscape to challenge the authority of platforms or the political system through social media reporting. Platforms arbitrate all reports based on the central government's ideology (Li, 2015), so it would be rare that a claim questioning the political power could be pursued. Thus, the study of social media reporting would both complicate and supplement the understanding of the online activist culture in China.

Digital media have enabled dispersed individuals to unite as a whole and take collective actions over a single issue (Salamon, 2016). The number of online social movements on political, gender, and race issues around the world is substantial (Greenberg, 2021; Piper, 2022), while fans are providing invaluable examples of culturally or commercially oriented campaigns. One example of online fan activism in the Western context is when TV fans made use of Twitter's affordances to engage in online

collective action to gain power to negotiate with executives and ultimately saved a show that was about to be canceled because of low ratings (Guerrero-Pico, 2017). In the case of China, we need to instead consider the political orchestration of fans' practice of reporting. Given the "interlinked commercial, legal and political structure" (Sullivan & Kehoe, 2019, p. 245), it would be crucial for fans to immediately eliminate any "suspicious posts" about their idols on social media by reporting, otherwise their idols would risk being blacklisted by the government (China Internet Information Center, 2008). Therefore, while social media could be an important platform for fans around the world to take collective action, their considerations might be different.

Accordingly, China's social media reporting could be seen as the result of a conjunction of the modern social media reporting mechanism, Chinese long-standing reporting habits, the powerful intervention from authority, and the individual's intention of being recognized. When the rapidly developing idol industry and the digital economy are combined with it, the practice of fans becomes eye-catching and is worth further understanding. This article aims to make conceptual contributions by identifying and explaining "data fan labor," which is a novel notion that has been developed in the Chinese idol industry, to link social media reporting, a kind of media practice realized by digital technologies, to the studies of fandom and digital labor, and to finally fill the gaps in the existing literature.

Methodology

A case study on Sina Weibo is applied in this research, and social media content analysis is used to investigate fan leaders' Weibo posts and other fans' responses in eight fan communities on this platform. The effectiveness of this method lies in the ability to capture common expressions with symbolic meanings (Couldry, 2000) and acquire information that cannot be obtained by interviews because of the concerns of the subjects (Elo & Kyngäs, 2008), which is likely to happen due to the current criticism of data fans on the Chinese Internet (Tang, Cheng, Tan, & Wang, 2019). Guided by thematic analysis (Braun & Clarke, 2006; Braun, Clarke, Hayfield, & Terry, 2019), we coded and analyzed 1,956 posts collected from fan leaders' Weibo home pages that were publicly available and also analyzed a wider range of fan leaders' and fans' specific practices online according to Couldry's (2010) "theorizing media as practice" (p. 115) method, given its advantage in studying media-saturated cultures.

Data Collection and Database

The decision to collect data on Sina Weibo was made not only because it is one of China's largest social media platforms and the most popular microblogging site, with about 511 million monthly active users (Weibo Data, 2021), but also because it operates in a typical model based on the celebrity/fan economy (Wang, 2019). In fact, almost all Chinese celebrities (and a growing number of foreign celebrities) have verified accounts on Weibo, which gives Weibo a unique advantage in terms of its commercial appeal and potential for collecting research data on fans' behavior. With the attraction of celebrities, countless fans registered on Weibo and the platform introduced more services catering to fans. According to Sina Technology (2020), Weibo's current business model heavily relies on influencers including celebrities and key opinion leaders, who account for a small percentage of total users.

To explore the practice of reporting by most fans, and to avoid taking a part for the whole, fan communities of male and female idols from both China and other countries were considered. To locate the most representative and influential fan communities, we referred to Sina Weibo's Superstar Chart, which directly reflects the degree of engagement of fans on this platform. Four male idols and four female idols with the highest scores were selected from the mainland China chart and overseas charts (including South Korea, Asia-Pacific, Europe, and the United States; Figure 3).

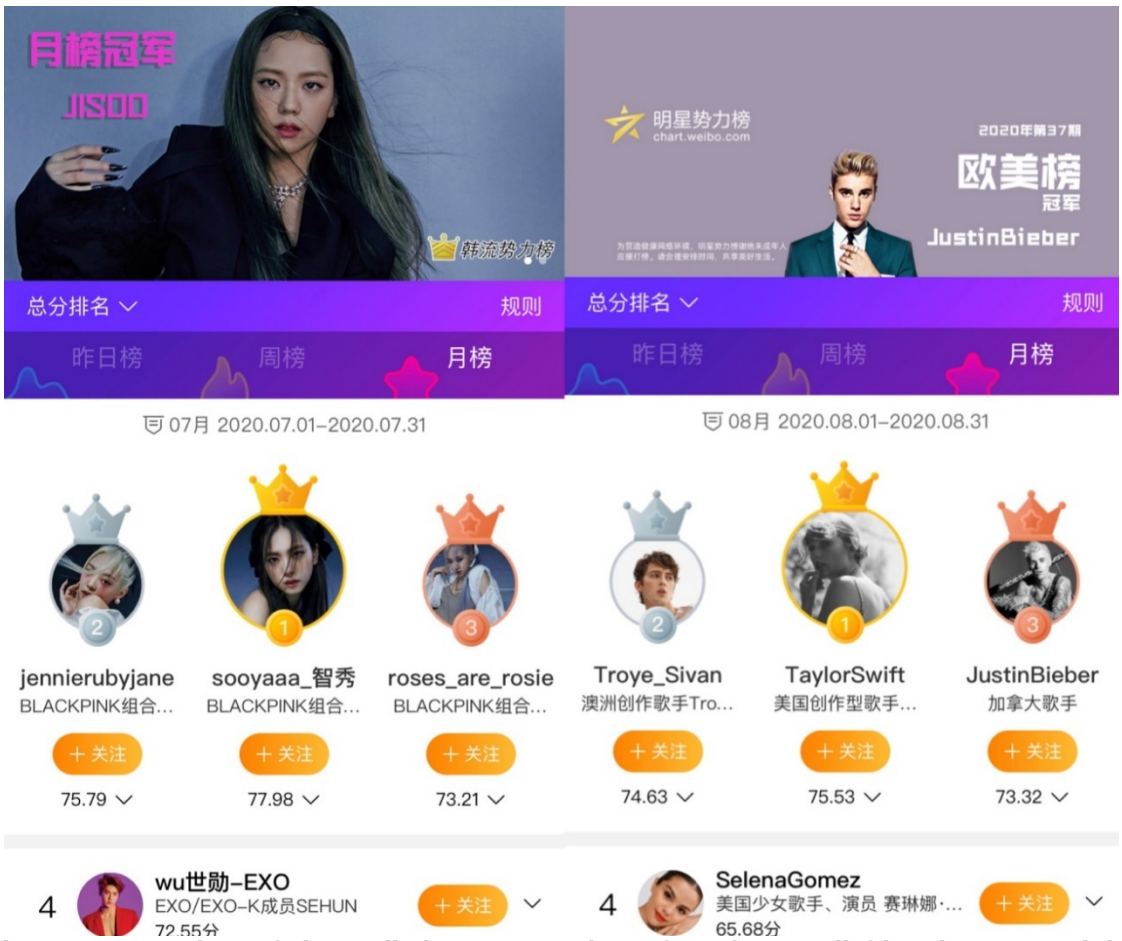

Figure 3. Screenshots of Sina Weibo's Superstar Chart of South Korea (left) and Europe and the United States (right) taken in September 2020.[2]

To locate the fan leaders, we first searched the idol's name on Weibo and selected fan leaders according to the "relevant users" function of Weibo. Then we used the keyword positioning method,

[2] The "Superstar Chart" feature of Sina Weibo was canceled in 2021, so these webpages are no longer accessible.

directly searching "the idol's name + 举报 (*jubao*; reporting)" and "the idol's name + 反黑 (*fanhei*; anti-criticism)," to find the users who publish relevant content through the popular posts in the search results. After initial screening found fan leaders, we chose the ones with the most followers and saved all their publicly available posts in July 2020 to form a database. The eight selected fan leaders are Liu Yaowen (code name for fan leader as CM1), Song Yaxuan (CM2), Xu Jiaqi (CF1), Yu Shuxin (CF2), Troye Sivan (FM1), Oh Se-hun (FM2), Lalisa Manoban (FF1), and Kim Ji-soo (FF2). A sample of 1,956 posts with 157,597 words from these eight fan leaders was adopted, and all data used in this research were last updated on August 31, 2020. To analyze ordinary fans' practice, the comment list of fan leaders' posts was also scrutinized. By default, the top spot in a comment list is always the comment with the most likes and replies (Sina Weibo, 2016), which could represent the common opinions from fans to the fan leaders' posts. Thus, the salient common features of top comments will be used as an indicator of how fans are influenced.

To avoid the loss of meaning, which may be caused when programs or scripts automatically capture the data (Wang, 2019), all the data used in this research were manually collected from information freely available in the public domain. To respect the privacy of all the Sina Weibo users whose posts were used, their usernames or the exact content of the original posts are not presented here.

Data Analysis

Due to the limited research on the topic of fans' reporting on social media, and because knowledge about online fandom culture in the context of China is relatively fragmented, this study independently created a coding scheme guided by the reflexive thematic analysis (Braun & Clarke, 2006; Braun et al., 2019) and the general inductive approach (Elo & Kyngäs, 2008; Thomas, 2006). It focused on the media texts, that is, fans' posts, and also, as Couldry (2010) suggested, took a more macro-level approach that is as open as possible to analyze what users are doing related to media. Coding started with close readings of collected posts; we gained understanding by capturing the key features—fan leaders used various modes of communication to publish particular types of content, so an initial coding scheme was designed. Four hundred of the 1,956 posts from fan leaders were first manually coded to test the validity of the scheme, then the coding scheme was modified and evaluated to both reflect how fan leaders present their ideas on Weibo and categorize the content of their Weibo posts.

As it is difficult to correctly identify by automated analysis the various communication modes used by fan leaders, we manually coded the data based on the coding scheme. All the collected posts were pasted into a Microsoft Word file and manually coded. Then, a qualifier book was created based on the specific Chinese phrases in the posts so that these data could be automatically analyzed by NVivo 12 (a qualitative data analysis application). The analysis was found to have a high degree of reliability as the consistency between manual and automated analysis was measured by kappa (McHugh, 2012). Overlapping coding was allowed because it is common for fan leaders' posts to contain more than one piece of information or use more than one communication mode. When a post matched more than one theme, it was counted in each of the applicable themes. Due to the significant difference in the number of each fan leader's posts, the percentage of posts on each theme is shown. A total of 1,956 posts were analyzed; this is presented in Table 1.

Table 1. Types of Communication Modes and Content of Coded Posts.

Communication modes	CM1 (n = 85)	CM2 (n = 114)	CF1 (n = 74)	CF2 (n = 92)	FM1 (n = 93)	FM2 (n = 86)	FF1 (n = 1,072)	FF2 (n = 340)
Emoticons or emojis	96.47	99.12	97.30	97.83	65.59	84.88	65.11	63.82
Videos	1.18	0.00	0.00	0.00	10.75	0.00	0.19	0.00
Links	89.41	97.37	100.00	93.48	18.28	83.72	74.25	93.82
Images								
Memes	1.18	66.67	44.59	47.83	13.98	22.09	42.83	60.00
Idol pictures	49.41	0.00	16.22	6.52	41.94	34.88	15.30	6.18
Reported content screenshots	2.35	3.51	0.00	2.17	3.23	4.65	4.29	15.00
Visual instructions	0.00	0.88	28.38	3.26	12.90	17.44	7.56	15.88
Contents								
Instructions								
Instructions on Sina Weibo	87.06	71.93	94.59	79.35	3.23	61.63	7.93	25.00
Instructions on other platforms	50.59	53.51	35.14	28.26	15.05	32.56	5.32	1.76
Collective activities								
Collective reporting	22.35	43.86	43.24	59.78	4.30	30.23	8.40	21.18
Other supportive activities	71.76	28.07	62.16	21.74	3.23	40.70	64.27	74.41
Other contents								
Community-related content	0.00	27.19	67.57	41.30	73.12	12.79	16.42	1.76
Self-expression	0.00	0.00	0.00	1.09	1.08	2.33	3.73	7.06

Findings and Discussion

This study has found that the digital fan labor in China's idol industry mainly includes multiple community-mobilization activities carried out by skilled fan leaders and a huge number of repetitive tasks completed by anonymous ordinary fans. The main issues addressed here are the behavior patterns of fan leaders and ordinary fans, the structure of the data fan labor on the platform, and the inputs and rewards for fans. Fan communities of idols basically appear as hierarchical organizations on Weibo, through which the "upper-class" fans are able to maintain their status, praise the voluntary work, and ensure that the data generation and management of activities are done efficiently although most fans are aware that they are being commodified.

Features of Fan Leaders' Posts

Besides the necessary text content, a variety of communication modes that Weibo allowed could be found in almost all posts. Emoticons and emojis were heavily used. In addition to CM2, fan leaders of male idols used more pictures of their idols, while fan leaders of female idols preferred memes. The difference might be attributed to the fact that young heterosexual female fans are the dominant fan group in China's Internet environment (T. Liu, 2019), and the sexual attraction of male idols has been noticed by their fan leaders. Both emojis and images can be considered effective means of attracting attention. In the era of new media, people may prefer visual communication over verbal communication (Dynel, 2016), and these two communication modes effectively meet their needs for visual interaction and emotional mobilization. However, fan leaders rarely posted screenshots of reported content, and only a small number of posts had videos probably because it takes more time to watch videos, which is the opposite of fan leaders' purpose of making posts more efficient. Significantly, all fan leaders expected FM1 to have a behavior pattern similar to theirs in which most of their posts contained internal links, which are links that direct users to the fan leader's other posts or other Sina Weibo users' home pages or posts, but FM1 provided more external links. The heavy use of links stands for how fan leaders understand and use the platform's affordances. Links enable a post to have more content and turn a post into a signpost that can direct users to multiple instructions and activities. At the same time, fan leaders have simplified their activities through links. For example, they are used to posting the reporting links, through which fans only need to press the report button instead of searching for the "hater," reading, and targeting the negative content and then reporting.

As for content, fan leaders repeatedly issued instructions to guide fans to effectively conduct activities on Sina Weibo, especially mainland Chinese idols' fan leaders and FM2—more than 60% of their posts carried instructions. Although they sometimes posted guides for events on other platforms, namely Morefans, Starmily, and Fenzi, Weibo remains the primary hub for conducting fan activities. These instructions were always displayed via links and images. With these instructions, a large number of online activities were carried out. Besides CM1, fan leaders' posts all included content beyond instructions and online activities such as daily summaries or teammate recruitment. Nevertheless, all the fan leaders researched showed little or no personal emotion or information. Although the content differed in specific terms, all of it had the same purpose—to manage fans and conduct activities more effectively.

Collectively, the common behavior pattern of fan leaders on Weibo can be summarized as their mobilization of fans to participate in online activities to manipulate data for their idols by attracting attention in various ways. In terms of content, fan leaders of idols who are with similar cultural backgrounds or became famous in similar ways tend to post in similar modes. The social media affordances are undoubtedly a prerequisite for fan leaders to use various communication modes to compete for fans' attention. Hence, for fan leaders, digital media allow them to continually remain influential to solidify their position in their communities, while ordinary fans are trapped with repetitive tasks.

Leadership in Fan Communities

Although social media have offered users the opportunity to expand their influence, it is not easy to stand out in the competition for attention. Being a fan leader requires a high level of organizational ability

and a deep understanding of digital media. Notably, fan leaders have mastered the functions and algorithms of different online platforms, simplified events, repeatedly issued instructions, and used multimedia information to ensure that more fans can participate in supportive projects effectively. Also, political sensitivity is necessary, which is shown in the specific practices. For example, on July 7, 2020, the Memorial Day of Lugou (Marco Polo) Bridge Incident, which is widely considered to be the start of the Second Sino-Japanese War, FF1, FF2, and FM2 suspended their updates or urged fans to be cautious. Similarly, when FM1 called on his followers to support Troye Sivan on Twitter, he referred to Twitter as "some blue app with a white bird" (TroyeSivanDataChart, 2020), perhaps to avoid censorship since Twitter is blocked in China. All these findings prove the time and effort spent by fan leaders.

While massive investment is crucial to establish their leadership, affordances of social media seem to be a prerequisite for the emergence of data labor. The mobility of media (Lazar et al., 2020; Schrock, 2015) has enabled fan leaders to track the posts mentioned by their idols and then act as the first source of information in communities. By managing what information is available to ordinary fans, fan leaders have established a downward flow of information for the exercise of power. Although one of the main motivations of most online activism in China is to resist or evade information control (Yang, 2009), fan leaders have to create a structure for information concentration and public opinion control, which is similar to the political strategy of the government. Fan leaders tend to not publicize the process by which they decide whether a post should be reported. Furthermore, they often warn fans not to read critical content. In some cases, the screenshot of the reported post was pixelated by fan leaders. In addition to indicating their aim (anti-criticism) and for whom they are campaigning, fan leaders do not expose much about who they are. They generally present themselves as the certified host of the celebrity's "super topics (*chaoji huati*)." This title represents the degree to which they contribute to the community and their authority to manage the community. Beyond that, they show few personal emotions, social networks, or any other clue to their personal identity in their posts. In fact, this is not uncommon on Chinese social media, where the individuals or groups operating these accounts call themselves "*pixia* (under the skin)." It is a metaphor for comparing a Weibo account to the skin, and the operator is the person living under that skin (Mao, 2020). Anonymous accounts on social media are generally thought to be created due to privacy concerns or to avoid punishment for breaking the platform's rules (Ellison, Blackwell, Lampe, & Trieu, 2016), but on Weibo, all users have to be verified by their mobile phone number, and being a "super topic" host even requires real-name verification (Sina Weibo, 2020). It can be assumed that fan leaders decrease their presence to guide their fans to focus more on their idols without being distracted by the operator of the account. Also, by controlling transparency, fan leaders may reduce the risk that they will be held accountable (Flyverbom et al., 2016) because collective reporting on Chinese social media has been criticized as violating the rights of expression and privacy of social media users who are accused by fans of being their enemies (Xu, 2020).

Fan leaders can be considered as having an anchoring role in social media, whose practices "anchor other practices by comprising a constant point of reference within them" (Couldry, 2010, p. 128). They are constantly improving their strategies to motivate more fans to join them, and by leveraging the influence of online fan communities, the rules that fan leaders advocate are becoming part of the social structure on Weibo so that the concept of "data first" can be deepened and more social media users are affected. Fan leaders might be similar to CCM workers, who serve social media platforms or companies, in that they try to use a set of values to determine whether content on the platform stays or goes, and these arbiters often

do not show their identity to other users (Roberts, 2016). However, unlike CCM workers, data fans work voluntarily for the presence of their idols rather than for the platform or the fan community, and their media practices may influence the social norms of the platform.

Therefore, the mobility and visibility of the social media platform (Flyverbom et al., 2016; Schrock, 2015), the relevant knowledge and skills, and the significant investment of time and effort are prerequisites for establishing leadership in fan communities. By the efficient management and organization of fan labor, the set of values promoted by fan leaders may ultimately influence the media practices of other users on the platform.

Invisible Data Fan Labor

Compared with ordinary fans, fan leaders seem to have more communication power, but they are also constrained and, in essence, part of digital labor. It should be clarified that although Internet users who put in creative effort without recognizing the value they produce might be unknowingly exploited (Banks & Humphreys, 2008), data fans who practice reporting on Chinese social media seem to have an option: Most data fans seemingly know that all fans including themselves are wielded as resources to help their idols win in this capital-driven market, which could be inferred from the term "*shuju nyugong*" (data fangirl; literally translated as data female labor), which is frequently used by both leaders and members of these fan communities to describe themselves. However, there is additional pressure on ordinary fans.

In addition to the claim that digital labor's emotions, knowledge, and personal information would be financialized (Hardt, 1999; Scholz, 2012), it is worth noting that the social media users who become data fan labor on Chinese social media may even face a deprivation of their rights of self-expression and discretion. When fans participate in collective reporting, they do not have to think about the reasons for reporting nor express their own opinions. They are also dissuaded from communicating with reported users and told to take their idols' data as the first consideration when expressing emotions. For example, FF1 once warned followers not to debate with haters because according to the mechanism of Weibo, comments with more replies in a post's comment list will be higher up on the list and more easily seen (Sina Weibo, 2016). FF1 said, "The person making criticism will not like Lisa. The more you explain, the happier he will be. To explain or curse is useless but to elevate the criticism up in the comment list. Is it hard to ignore it?" To protect the fan leader from data-mining software, the actual post has been paraphrased and translated to this version (Markham, 2012). Besides, by analyzing fans' responses to fan leaders' posts, it can be found that they comment not for communication or socialization. Instead, they see commenting as a check-in to show that they have completed their tasks or as another kind of data-manipulating activity by repeatedly sending out terms containing their idols' names, which are always in a certain form provided by fan leaders. This is another example of taking advantage of the platform's functionality. Sina Weibo's algorithms automatically associate the most frequently used relevant terms when users search for a word on the site. For the praise of idols to reach the top of the associative terms list, fans need to post a large number of posts with the same term.

Essentially, the power distribution within the online community is unequal. A hierarchical system has been established, and the asymmetrical power structure is normalized when fan leaders constantly

refine the discourses and rules, which confirms Scholz's (2012) claim that digital labor is "the continuation of social relations surrounding the traditional work-place" (p. 11). The insight into the structure of data fan labor on Weibo is contrary to Salamon's (2016) finding about the entrepreneurial media labor and activism, that workers with similar interests would think of themselves as being in the same class. Social media may give all users the opportunity to express themselves freely on the premise of compliance with the conventions of the platform, but Weibo has concentrated the right to be heard among a handful of people. For general fans at the bottom of the hierarchy within the communities, collective activities stand for being organized and manipulated to strengthen the voice of fan leaders.

Rewards for Data Fan Labor

For ordinary fans, paying efforts may not mean subjectively feeling exploited. The blurring line between play and labor mentioned by Galloway (2007) exists within this sphere. Generating and manipulating online traffic about idols is just a part of fans' media practice, which requires a small expenditure of effort because the gamified tasks can be simply completed by clicking links prepared by fan leaders. In addition, fans' eagerness to vent their passion for their idols and people's spontaneous desire for emotional and cultural products make productive activities more pleasurably accepted (Terranova, 2012).

It can be speculated that the rewards for these voluntarily working fans are seemingly abstract. The Chinese idol industry, which developed based on Japanese and Korean idol culture (Kim, 2018; Shin, 2009), strictly forbids personal contact between idols and fans because it could undermine other fans' fantasies about their idol and lead to the idol paying huge damages to the entertainment agency for breaching contract (Kiuchi, 2017; Wang, 2020), so even a huge voluntary input can hardly increase fans' chance of further contact with idols. Besides, the idea that fans could accumulate knowledge through voluntary work (Baym & Burnett, 2009) does not hold completely true when analyzing the practices of Chinese data fans. This kind of fan labor does not seem to involve the appreciation of celebrities' works or the creation of fan art, and since fan leaders have simplified online supportive activities, operating media tools requires little knowledge. Compared with fan leaders, ordinary data fans are less likely to enhance their skills or increase their knowledge. Basically, they create "an endless digital forest of mediocrity" (De Kosnik, 2013, p. 188), which makes data fans different from other categories of voluntary fan labor who have a heightened intellectual investment (Milner, 2009). It would be more common for fans to gain psychological self-satisfaction from the idols' achievements built on their efforts (Kiuchi, 2017). Their online behaviors have a real influence on the celebrities' positions in the data competition, and the pleasure of having an idol at the top of a chart may not be much different from managing a thriving city in a simulation game.

In sum, data fans' massive collective activities including reporting have reconfigured the performance and meaning of digital labor in China's online idol industry by constantly normalizing doing voluntary work in obscurity. A specific hierarchical system has been built in organized fan communities, exploiting ordinary fans unconsciously or willingly. Affected by the trend of advocating data on social media and under the guidance of fan leaders, fans generate and manage online traffic to meet their emotional needs but can hardly get actual rewards. Although reporting does not require significant effort and fans may be compensated in immaterial ways, their expressions are suppressed, and other social media users are affected as well.

Conclusion

By drawing on the framework of digital labor, this article has investigated Chinese data fans' media practices on Sina Weibo. The 1,956 posts from eight fan leaders of top-ranked idols and the responses from ordinary fans are analyzed. The findings suggest that for the benefit of their idols, fan leaders organize fan labor within online communities by taking advantage of the social media affordances of visibility and mobility, and fan communities influence other social media users. With their knowledge and skills, a small number of fans can build their status of leadership, but it takes constant contributions of time and effort to maintain the influence. With a variety of attention-grabbing attempts, these fan leaders deliver a "data first" message to more social media users while maintaining the engagement of their followers. We argue that although a large number of data fans keep repeating tasks, bringing traffic to the platform and promoting the development of the digital economy, they are likely to be exploited in the hierarchical community.

It is worth noting that this case study focuses on the idol industry particularly, but it could be extended to study similar power relations in fan labor across broader media industries, for example, the film industry and anime industry, which have huge online fan communities and dedicated fans (Fung, Pun, & Mori, 2019; Guo & Evans, 2020). Since mid-2021, the Chinese government has been cracking down on the online idol industry (Allen, 2021), which has proven that fandom cannot be understood in isolation from the cultural, economic, legal, and political structures in China. This article may provide valuable insights into a particular dimension of digital labor, but, more than this, it may be useful for studying power structures within the group of digital labor and exploring the institutional power's impact on individual users' media practices.

Finally, we acknowledge that this is an initial elaboration of the concept "data fan labor," as it is unable to encompass fans' practices on different platforms, and how it has evolved with the continuing growth of the industry. Fans' organizational communication in private chat rooms and the driving force of fans' voluntary labor can be further studied through online ethnography in the future to enrich the content of this concept. In addition, the Chinese government's criticism of fandom on social platforms will have a great impact on the idol industry, and fans' media practices may also change accordingly. The focus on this change may provide interesting views for studies on how individuals negotiate with government interventions in their media practice.

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