"We Gather Together, We Collaborate Together": Exploring the Challenges and Strategies of Chinese Lesbian and Bisexual Women's Online Communities on Weibo

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In China, lesbian and bisexual women face intense stigma and difficulties developing relationships with each other. Although prior research has shown that online communities help LGBT people connect and exchange social support, few studies have explored the challenges Chinese lesbian and bisexual women face when initiating, growing, and sustaining such communities, in an atmosphere of platform censorship of LGBT-related content and intense discrimination from non-LGBT people. To address this gap, we interviewed 40 Weibo users in China, four bloggers and 36 followers of their blogs, who self-identified as lesbian or bisexual women. We found that a key technique these bloggers used to initiate their online communities was helping followers publish posts seeking support, sharing personal experiences, and seeking offline relationships. Then, their followers built relationships with bloggers by journaling their daily experiences as lesbian or bisexual women via private-messaging channels. As the communities' members grew more attached to them, bloggers and their followers began to work together to protect themselves from external threats, including Weibo's censorship and non-LGBT+ infiltrators' harassment. However, such attachment to the communities sometimes might lead to conflicts within them, which in turn prompted many members to leave, raising questions about the communities' long-term prospects. Our findings foreground important design considerations for those seeking to help lesbian and bisexual women in China and other discriminatory environments to develop safe online communities.

CCS Concepts: • Human-centered computing \rightarrow User studies.

Additional Key Words and Phrases: Lesbian and bisexual women; Online communities; Social media

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1 INTRODUCTION

Despite various advancements of their rights in recent decades [4], people who are lesbian, gay, queer, bisexual, transgender, or who have other non-traditional gender expressions (LGBT+) still experience stigma [46], and this is one of the factors hampering their ability to meet face to face [62]. In China's collectivist culture, LGBT+ people continue to face marginalization and in some cases active discrimination in the economic, religious, and legal spheres [50, 55, 61]. For example, many

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lesbian and bisexual women in present-day China experience severe isolation due to widespread perceptions of their deviation from societal norms, including but not limited to the high value placed on preserving harmony within one's social circle [50, 52]. This is because, in a collectivist perspective, people are expected to play stereotypical roles as social group members, such as wives, mothers, and/or daughters who fulfill the demands of filial piety [73]. Moreover, lesbian and bisexual women in China tend to receive less support from local LGBT+ organizations than their male counterparts do [18, 39, 77]. Therefore, many such women feel depressed and isolated, and/or experience stress arising from their identities [19, 52].

Online communities play an essential role in helping LGBT+ individuals to connect with one another [16, 25, 32], exchange informational and emotional support [3, 27, 32], explore their identities [25, 27, 34, 54], and develop relationships, whether for platonic friendship, casual sex, or long-term intimacy [16]. In China, Weibo is a leading micro-blogging website, and one of the largest social networking sites (SNSs) [70] used by the Chinese LGBT+ population [42]. As such, it is an important platform for them to interact with other LGBT+ users [33]. Lesbian and bisexual women in particular use Weibo to share information relevant to their identities, facilitate discussions, and connect with other lesbian and bisexual female users [1, 44]. Recently, LGBT+ communities on Weibo have received increased attention from researchers [14, 33, 81]. The majority of the resulting studies have focused on mental health and LGBT+ social activism, and have suggested that seeking and offering support on Weibo could enhance LGBT+ users' perceived social support [33]; and further, that the visibility offered by the SNS could empower the LGBT+ population [14, 81].

However, Weibo is not necessarily a safe space for lesbian and bisexual women's online communities, because it is subject to stringent government regulation, including censorship specific to LGBT+ content [1, 44]. Additionally, infiltration and harassment by outsiders (e.g., heterosexual males) might intensify Chinese lesbian and bisexual women's safety concerns about joining online communities [71, 84]. In response to pervasive cyberbullying and discrimination, lesbian and bisexual women in China tend to construct their online communities with great care, with the twin aims of protecting themselves against both state erasure and harassment [71].

Nevertheless, how Chinese online communities for lesbian and bisexual women confront and mitigate the challenges of a broadly hostile online environment remains largely unexplored. Some researchers [36, 57] has indicated that Western LGBT+ research findings are not congruent with Asian reality, in particular when it comes to people's online community-building practices. This might be due to Asian cultural characteristics, notably including values and norms [36]. Therefore, to make social-media platforms more inclusive for LGBT+ online communities in Chinese (and perhaps other non-Western) cultural contexts, it is important to understand stigmatized users' challenges and practices when building such communities in such contexts. Accordingly, the current study is an effort to gain an in-depth understanding of how Chinese lesbian and bisexual women initiate, grow, and sustain online communities on Weibo.

To achieve our research goals, we conducted semi-structured interviews with 40 self-identified lesbian and bisexual women in China, including four bloggers who had built communities for such women on Weibo, and 36 other members of those communities. For the bloggers, the interview questions were designed to elicit perspectives on what had encouraged them to build their communities, their process of doing so, the challenges they experienced when growing and sustaining them, and their strategies for dealing with those challenges. The questions aimed at the other community members, on the other hand, probed their reasons for joining these communities, their obstacles to and challenges arising from participation in them, and how they reacted to the bloggers' strategies for community growth and sustainment.

Our research findings indicate that the members of Chinese online communities for lesbian and bisexual women had distinctive practices for obtaining emotional support and seeking offline relationships, while at the same time ensuring they were safe from being identified by outsiders. For instance, they built connections with the bloggers and other community members by sending private messages about their daily experiences that related to their lesbianism or bisexuality. They also sought offline relationships through the bloggers, as a means of gaining potential partners' trust. With strong connections with each other, the bloggers and other members collaborated to protect themselves from external threats including Weibo's censorship and outsiders' harassment. Specifically, this intense policing of their communities' boundaries could include shunning and shaming outsiders by publicizing bad actors' account information and calling on community members to engage in retaliatory trolling of them. However, they also faced intra-community conflicts, including some arising from discrimination against their bisexual and transgender members.

This paper's main contributions are as follows. First, it unpacks how online communities for lesbian and bisexual women in China are formed around a blogger by groups of women who trust and support that person, and how member-to-member relationship formation relies on the blogger as a trusted mediator. Second, it reveals the challenges the bloggers face in the course of growing and sustaining their communities, and how they address such challenges with the help of their members. Lastly, its findings provide insights that could assist the design of safer online spaces for stigmatized groups in non-Western contexts.

2 BACKGROUND AND RELATED WORK

In China, LGBT+ women have fewer legal protections than their heterosexual and cisgendered counterparts [6, 61, 76]. The People's Republic decriminalized homosexual acts as recently as 1997 [12], but as a matter of policy, it will not endorse or promote homosexuality [6], a dismissive stance that also extends to adoption by same-sex couples, commercial surrogacy, and same-sex marriage [61, 76, 77]. In fact, LGBT+ women in China are widely regarded as socially dangerous, or even "contagious". Moreover, due to Chinese collectivist culture which places strong emphasis on cohesion and group norms [49, 55, 61], there are fears that non-heterosexual behavior will bring shame and disharmony to entire social networks [50, 55, 61]. As a result, LGBT+ women frequently conceal their sexual orientations, marry men, and have children [55, 60, 61], resulting social isolation [61, 77]. Such isolation has been linked to Chinese LGBT+ women's higher incidence of mental-health problems, as compared to their heterosexual and cisgendered peers [52]. Moreover, when such problems arise, help is not always forthcoming, because public-health support for the LGBT+ community in China is narrowly focused on HIV/AIDS prevention among gay men [18, 39].

2.1 Weibo and LGBT+ Communities in China

Weibo is one of China's most popular social-networking and micro-blogging websites [70]. As of June 2020, according to the China Internet Network Information Center, some 40.4% of China's 940 million netizens were active users of it [59]. This SNS has been studied extensively by HCI scholars, who often liken it to Twitter [70]. It allows its users to share news, thoughts, and everyday life experiences with existing acquaintances and strangers, either by initiating new posts or commenting under others' posts [70].

Weibo has the potential to allow LGBT+ individuals to access and disseminate LGBT+ information, and engage with other users who share the same identity [1, 33]. This is important to Chinese LGBT+ women because even the existence of their community is treated as a sensitive topic. Unfortunately, however, LGBT+-themed material is heavily censored, whether in print, on television [12, 77], or online [1, 37, 44], adding further to Chinese LGBT+ women's existing difficulties [37, 61, 77] in accessing and sharing information about their particular interests and concerns [77]. For example, Weibo's strict censorship causes LGBT+ women's difficulties in using super hashtags, insofar as

higher visibility carries higher risks of censorship [1, 37, 44]. The "Les" hashtag, for instance, had more than 125,000 posts before it was banned in 2019 [1, 44]. Despite censorship and other forms of government regulation [70], Weibo has developed into an online space where LGBT+ women can interact with one another and distribute information relatively freely [81], at least as compared to on more public media and in offline spaces [26, 66]. The large number of users and their prevalent use of Weibo constitutes a challenge to censorship, and this, in turn, nurtures opportunities for LGBT+ women to engage in social activism on behalf of their own and other LGBT+ populations [66, 81].

On Weibo, there are two types of LGBT+ women's communities. The first consists of personal microblogs established and run by LGBT+ women with high popularity, as measured by their numbers of followers [53, 70]. The users who run these personal microblogs and have a substantial volume of followers are called *bloggers*. Bloggers share posts that other users can comment under and repost. Users find bloggers by searching for LGBT+-related hashtags, obtaining recommendations from their LGBT+ friends, or being shown similar bloggers by Weibo's recommendation algorithms. As well as commenting on the bloggers' posts, they can send them private messages.

The second type of community is called *Chaohua* (literally, "super hashtags"), which allow groups of users to create topic-specific online communities for sharing and discussing information [72]. For example, the "LESBIAN" super hashtag had 168,000 members and 106,000 posts as of December 2021.

Notably, within both these types of communities, a person who is not a lesbian or bisexual woman can also see the posts and leave comments, thus making it difficult to distinguish outsiders and blurring the community boundaries.

In this paper, we focus on communities that were built and organized by lesbian bloggers. Because the majority of Weibo's users are active both as post initiators and commenters [70], it is one of the top online platforms whereby LGBT+ users interact with their peers, seek information about their identities, and engage with the wider LGBT+ community [33]. Thus, we chose Weibo as our target social-media platform, while acknowledging that this choice might negatively impact the generalizability of our findings. This issue will be discussed further in the Limitations section.

2.2 Challenges Affecting the Various Stages of Building LGBT Online Communities

Social-media platforms, due to their ability to normalize expressions of both positive and difficult experiences [7], perform essential roles for many marginalized communities, including of LGBT+ people, that may differ from those they play for dominant groups [20]. Research has shown that LGBT+ communities on social media have the potential to positively influence their members' wellbeing [21, 25, 27] by assisting their socialization and providing them with informational, social, mental-health, and identity-development support [10, 25, 27]. For example, LGBT social-media users can explore, develop, and identify with their identities by observing other LGBT+ users' experiences, engaging in identity play to explore boundaries while navigating the coming-out process, and sharing LGBT+ content [27]. They can also connect with similar others [25, 27], share information (e.g., health information, coming-out experiences) [27, 38], and receive emotional support from others who have had similar experiences [25].

However, constructing and managing LGBT+ communities on social media is not easy [21], especially in nations where stigmatization of the LGBT+ population is prevalent [57]. And, as Devito et al. [21] and Duguay et al. [24] have suggested, if LGBT+ online communities are not well-constructed or well-managed, they have the potential to harm their users. For example, such communities can be subject to infiltration and harassment by outsiders (e.g., heterosexual people) [20, 24], while their transgender and bisexual members may experience intra-community discrimination and isolation due to other members' transphobic or biphobic attitudes [65, 74]. And

in China, all these problems of LGBT+ online communities are magnified [1, 44], making them very difficult to develop and maintain.

Prior research [17, 43, 78] has also indicated that online communities evolve in stages, each of which has distinctive characteristics and problems to be overcome. The inception and creation of a new community typically face challenges such as defining its niche and attracting a particular target population [43, 48]. Provided that these are overcome, new challenges arise: around growing the community and ensuring its members' ongoing commitment [43, 48]. Lastly, in a mature community, it can remain challenging to regulate members' inappropriate behavior, which if left unchecked can lead to loss of popularity and, for individual members, even worse outcomes such as cyberbullying [67, 82]. Accordingly, the present paper will consider the needs and challenges of online communities for Chinese lesbian and bisexual women on a stage-by-stage basis.

2.2.1 Challenges of Initiating a New Community. Successfully creating a new community requires a vision that will satisfy its members' desires to engage in meaningful discussions, exchange informational and emotional support, and/or form relationships [43, 78]. After envisioning a new community's mission, creating it requires clear aims, choices among various technological tools (e.g., discussion forums, chatrooms, bulletin boards), and a group of founding members [43]. Prior research has explored common obstacles to creating new communities, including failure to adequately address potential members' needs, or to find a useful niche; failure to defend a niche once it has been found, leading to incompatibility with other competing communities; and failure to attract the targeted population [48].

Among members of such LGBT+ online communities, the challenges of forming the communities are even more complicated, and overcoming such challenges tends to require population-specific, intentionally inclusive social-media design [16, 25, 32, 57]. For example, it is still not easy for social-media platforms to protect various aspects of their users' safety and privacy, since the platforms lack effective mechanisms to facilitate their users' anonymity and pseudonymy, to partition their friendship networks into those who know they are LGBT+ and those who do not, or to allow them flexibility in the presentation of their sexual identities [16, 32, 57].

2.2.2 Challenges of Growing a Community. Communities initially grow by informally assigning various roles to their members, such as leading discussions, providing support, and seeking information [43]. Members' commitment is key to communities' growth [43], as committed members tend to stay in them longer [48], participate in them more actively, contribute meaningful content that others value [11], and behave in accordance with the community's norms [48].

In LGBT+ online communities, these positive community-growth phenomena tend to occur when members disclose their feelings or problems associated with being LGBT+ [63], seek advice or support on relationships or other aspects of their lives [63], and answer other members' questions [32]. Various prior studies have explored how LGBT+ individuals on social media establish bonds with sexual-minority communities and develop feelings of commitment toward them [10, 16, 35, 57]. For example, LGBT+ Facebook users have reported feeling an obligation to share their life experiences and useful information with similar others [10].

However, due to stigmatization and discrimination, LGBT+ online communities often confront user-commitment problems [57]. Specifically, participation in such communities can lead to unexpected disclosure of members' sexual identities, which often prompts them to limit their community participation, cease it, or shift it to different social-media platforms [24, 25, 57, 65]. Another problem with parallel effects is harassment by outsiders, such as heterosexual males and females who use fake accounts to infiltrate LGBT+ online communities and spread hate speech inside them [20, 25, 57]. Low barriers to entry into these online communities, such as hashtags that can be used by everyone on Tumblr, make such infiltration relatively easy [65].

Members of LGBT+ online communities have deployed a range of strategies to cope with outsiders' infiltration and harassment. For example, as Nova et al. [57] pointed out, some LGBT+ Facebook users utilize security tools to report these problems; and Duguay et al. [24] noted that queer Tinder users tend to spend substantial amounts of time scrutinizing potential daters' profiles to make distinctions between real queer users' accounts and catfishing, predatory ones. Other strategies deployed by stigmatized non-LGBT+ online communities, e.g., for people with eating disorders, have included sending hate mail to infiltrators, and shaming them by publishing screenshots of their posts [82].

2.2.3 Challenge of Sustaining the Community. Once an online community matures, regulating its members' behavior in line with clear rules and norms becomes key to sustaining its vibrancy [17]. The main obstacles to doing this emerge when community members have conflicting interests and/or perspectives [48]. This is the case in offline communities as well, but it is exacerbated online by 1) lack of geographical boundedness and other factors that lead to much greater diversity of viewpoints, and 2) the stronger potential for miscommunication in textual, as compared to face-to-face, communication [48]. In addition, social media's anonymity and easy entry make it fairly simple for bad actors to engage in inappropriate behaviors [48].

In online communities, authoritative figures such as group owners and moderators can deploy various strategies to regulate the members' inappropriate behavior and prevent harm arising from it. These strategies can be divided into two general types: curating content, e.g., removing harmful comments and posts; and curating people, such as by banning members temporarily or permanently [79]. For example, in Facebook groups for Pakistani women who have suffered domestic abuse, moderators remove disrespectful or judgmental comments and the members who posted them [83]. However, such practices have major costs, both manual and emotional: moderators not only have to spend massive amounts of time curating content and regulating members, but also may be subject to secondary trauma caused by reading sensitive content [83]. Moreover, in Twitch micro-communities, moderators have to deal with rude users who are unhappy with the punishments they have been given for their inappropriate comments, and who create new accounts to return to those communities to make trouble [79]. In such cases, moderators report these users to Twitch and ask for more permanent IP-address bans [79]. However, moderators are often unsure about how to deal with members who seem to have serious mental-health and/or anger issues [79]. Insider harm-i.e., harm committed by members of the same affinity group and/or online social space—can lead to LGBT+ social-media users becoming even more marginalized [21, 65, 74]. Common forms of insider harm include stigmatization, invalidation, and erasure targeted at bisexual and transgender users [21, 65, 74]. For example, due to homonormativity and stereotypical views of sex and gender binaries [69], bisexual users frequently feel a lack of acceptance from wider LGBT+ communities, and become involved in arguments about how their identity should be presented [74].

The challenge of insider harm further complicates the issue of community inclusion, and reflects a tension between community solidarity and diversity. On the one hand, members of LGBT+ online communities are concerned about potential harm from bad actors; but on the other, they are concerned about harming others by accidentally excluding genuine LGBT+ users who also need such communities' support [21]. Additionally, LGBT+ users sometimes express worries about whether the power of administrators and moderators will evolve over time to fit communities' changing composition and values, given these authority figures' near-absolute power to write and enforce community rules and dictate privacy settings [21].

2.3 Challenges of Censorship and Removal of LGBT+ Content

Censorship on social-media platforms may block LGBT+ people's exchange of social support [25] and hamper the process of their building of online communities for themselves [32, 68]. In some societies, LGBT+ social-media content is considered inappropriate or even harmful. On social-media platforms in such societies, LGBT+ people's self-representation [24, 68], medical and educational content such as transgender people's surgery photos [25, 32], and representations of LGBT+ subcultures [24] are treated as inappropriate, are subject to non-LGBT+ users' reporting [68], and can even be suppressed by algorithms designed to enforce stereotypes [45]. Moreover, platforms including Facebook deploy "real name" policies that can in effect censor expressions of transgender people's identities, such as their names and pronouns, which can also have knock-on negative effects on how many and which online communities such users are able to join [25].

Prior research has explored how social-media users, including in China, perceive and react to information-blocking [47, 64, 67]. Such work reveals that users tend to perceive censorship as confusing; to be motivated by it to engage in self-censorship [64, 67]; to be inconvenienced by the absence of content removed due to censorship; and to feel personally persecuted when censorship occurs [67]. Additionally, previous research has reported that users might respond to censorship by trying to censor people they interact with [64]; by reposting the same content that was previously censored [68]; by collectively commenting and liking videos in the belief that doing so could cause it to be boosted by the algorithm [45]; by trying to become more technically savvy [67]; by trying to learn about blocked content via communication with their social connections [67]; by using slang and emojis to avoid directly addressing sensitive content [85]; and by using homophones for words that might be on block lists [47]. Private bloggers and other hosts of online communities, meanwhile, tend to monitor comments on their sites manually and to send messages to their members who have made comments likely to be censored, encouraging them to remove or augment such comments [67]. These online-community leaders might also nominate trusted frequent users as volunteer moderators, or even hire people to moderate. Such moderation might include issuing warnings to users to revise their sensitive comments, and if they refuse or fail to respond, handing those users' information over to government agencies [67].

In general, LGBT+ online communities confront the above challenges in distinct stages, i.e., platform-initiated censorship [24, 25, 32, 68], infiltration and harassment by outsiders [16, 23, 57], and intra-community discrimination [21, 65, 74]. Such findings inspired us to explore LGBT+ online communities in the context of China, and in particular, whether there are China-specific issues that should inform future online-community designs.

In summary, and as further described in section 2.1, prior work has broken significant ground by exploring the opportunities and challenges involved in constructing LGBT+ online communities, but the majority of those studies have been conducted in Western contexts [10, 16, 23, 35]. Studies of China's LGBT+ online communities have focused on activism for sexual-minority rights [14, 81], and few if any have explored cultural and structural obstacles to lesbian and bisexual women's development of online communities that will meet a broader range of their needs: i.e., social support and relationship-building. Therefore, to fill this research gap, and through the lens of the challenges to building online communities [48], we will attempt to answer the following research questions (RQs):

RQ1: How and why have lesbian and bisexual women initiated online communities on Weibo? **RQ2:** What have been lesbian and bisexual women's challenges to growing those online communities?

RQ3: What have been lesbian and bisexual women's challenges to sustaining those online communities?

ID	Sexual Orientation	Age	Disclosure Status	Employment	Years on Weibo	Education Level	Number of Followers
B1	Lesbian	23	Close friends & Family members	Student	5	Bachelor's	240,000
B2	Lesbian	25	Close friends	Employed	4	Master's	40,000
В3	Lesbian	24	Close friends	Student	6	Bachelor's	30,000
B4	Lesbian	27	Close friends & Family members	Employed	4	High Schl.	110,000

Table 1. Key demographic characteristics of blogger interviewees

Answering to these RQs will help us to gain a deeper understanding of lesbian and bisexual female users' needs for, and behavior while building online communities in a non-Western cultural context, and provide insight into how to design social media that are more inclusive for LGBT+ populations and other stigmatized groups in such contexts.

3 METHODS

3.1 Recruitment

We recruited interviewees through snowball sampling, a technique that has been widely and successfully employed to recruit participants from hard-to-reach population subgroups [28, 57]. Initially, we contacted non-governmental LGBT+ organizations in China to seek their advice about recruitment and protecting the participants' privacy. Due to various constraints and potential risks, we did not recruit any interviewees directly from those organizations. Instead, we first identified seven bloggers by searching posts with keywords pertinent to LGBT+ women, and focusing on those accounts emitting them that had more than 10,000 followers. The Chinese-language keywords we used to search for interviewees will not be disclosed, due to our commitment to protecting their identities. Likewise, because the account holders all had public visibility, we will refrain from providing their biographical details here, due to privacy and safety concerns. Then, we reached out to the initial pool of seven bloggers and invited them to a private online meeting. In it, we explained our research goals and how we planned to protect their personal information. Then, all of them were invited to join our study, and to be interviewed about their experiences as Weibo bloggers. Those who agreed were then asked to introduce our study to their respective sets of members by sharing our recruitment materials. The recruitment materials in question highlighted the length of the interview (40 minutes), provided a general introduction to our research goals, and explained how potential participants could reach us via the bloggers and our email addresses.

3.2 Interviewees

In all, the process detailed above resulted in the recruitment of 40 lesbian and bisexual women living in China, all of whom participated in individual online audio interviews aimed at capturing their motivations, practices, and attitudes related to their respective lesbian and bisexual women's Weibo communities. Four participants were bloggers and the remainder as members. Each interview lasted 30-60 minutes (mean=39.76, SD=15.90) and was audio-recorded and transcribed for analysis with the interviewee's permission. Each participant was compensated US\$15. The study received approval from the authors' Institutional Review Board (IRB).

Tables 1 and 2 present the demographic characteristics of the bloggers and members, respectively. All interviewees reported their ages as between 18 and 32, and their mean age was 24. All lived in China at the time the study was conducted and self-identified as female. Three-fifths, including all four bloggers, identified as lesbian (n=24), and the remainder (n=16) as bisexual. Most (n=30) were

Sexual Orientation	Lesbian (n=20, 56%)		
Sexual Offentation	Bisexual (n=16, 44%)		
A	18-25 (n=30, 83%)		
Age	25-32 (n=6, 17%)		
	Concealed (n=4, 11%)		
Disclosure Status	Close friends (n=35, 97%)		
	Some family members (n=10, 28%)		
	Student (n=28, 77%)		
Employment	Employed (n=6, 17%)		
	Unemployed (n=2, 6%)		
	> 2 Years (n=23, 64%)		
Years on Weibo	1 - 2 Years (n=9, 25%)		
	< 1 Year (n=4, 11%)		
	High School (n=3, 8%)		
Education Level	Bachelor's (n=22, 61%)		
	Master's (n=11, 31%)		

Table 2. Key demographic characteristics of member interviewees

college students, eight were in employment, and two, unemployed. All four blogger interviewees had at least 30,000 followers (Table 1) and posted content on their blogs daily ¹ during the period of their participation in this study. All the bloggers reported having used Weibo for between four and six years. Of the member interviewees (Table 2), 63% had used Weibo for more than two years, 25%, for one to two years, and 12%, for less than one year.

3.3 Procedure

Before being interviewed, each participant was required to sign a consent form and answer a preliminary survey. Both documents were in Chinese, the native language of all participants and all interviewers. The consent form reminded each participant that she would remain anonymous and could refuse to answer any questions. The preliminary survey questions were aimed at helping us understand our interviewees' backgrounds. Specifically, they inquired about: 1) self-identification (participants were asked to categorize themselves into predetermined categories, including lesbian, bisexual, transgender, and "other"); 2) age; 3) occupation; and 4) experience of using Weibo, in terms of usage frequency, years of usage, and any concerns raised.

3.3.1 Interview Protocol. All the interviews were conducted in Chinese, and began with the interviewer introducing herself and engaging in small talk to build trust and facilitate conversation. Then, she explained how we intended to protect the participants' personal information; informed them of their right to suspend or abandon the interview at any time; and told them that refusal to answer particular questions would not incur any penalty. In the interviews per se, we asked questions about their experiences of building or engaging in lesbian and bisexual women's communities on Weibo. Regardless of whether a given interview was with a blogger or a member, we first asked questions about the interviewee's experiences as a lesbian or bisexual woman in China: for example, "Have you disclosed your sexual orientation to family, classmates, friends, or coworkers? If so, to whom?", "Do you have any lesbian or bisexual friends offline? If so, how did you get to know each other?", and (provided that she felt comfortable sharing her experience with us) "Have you ever experienced discrimination against your sexual orientation in your offline social circle?"

¹One of the bloggers' accounts was banned in October 2021.

If the interview was with a blogger, we then asked questions about her experiences of building and organizing a lesbian and bisexual women's community, such as "How did you first become a blogger and decide to build a community?". We then asked "How do you usually organize the community?", and "What community-organizing task do you spend most time on?" We also asked for further details about how they empowered, managed, and sustaining their respective communities; how they identified and reacted to challenges to doing so; and their concerns about coping with such challenges. To help us understand the relationships among their concerns about their communities' challenges and their practices for dealing with such challenges, we also asked them to identify their reasoning behind the practices they had mentioned. Next, we asked them to share their successes and failures when trying to cope with their communities' challenges: for example, "How do you perceive the outcomes of using this strategy?" Finally, we asked the bloggers to share any other experiences they thought were relevant.

The questions specific to our interviews with community members began with ones about their experiences of participating in lesbian and bisexual women's online communities, such as "How did you start following a blogger and engaging in her community?" We then asked "How do you usually participate in the community?", and "What information being shared in the community are you most interested in?" We also asked for more details about how they interacted with the bloggers, and of how they perceived the outcomes of their own participation in the communities: for example, "Have you communicated with the blogger via private messages? If so, about what?", and "What do you hope to gain by participating in the community?". Then, we asked about any difficulties they encountered when participating in the communities, and any concerns that arose from such participation. Specifically, we asked them to describe the processes whereby they responded to the bloggers' strategies for coping with community challenges. The interviewees who said they had collaborated with bloggers were then asked to share the factors that contributed the most to such collaboration. Lastly, we asked the members to share any other experiences they thought were relevant.

3.4 Interview Analysis

All the interview recordings were transcribed, and we used thematic-analysis procedures to categorize each response according to the questions' themes [58]. Initially, this involved two of the researchers familiarizing themselves with the interview data and documenting their thoughts about potential codes/themes. Next, the same two individuals iteratively reviewed and labeled the first seven interviews with emerging codes. If a given interview response corresponded to multiple codes, it was divided into multiple parts so that each part could be labeled with a single code. The initial codes included: sense of responsibility to initiate an online community, anxiety, relationship building, solidarity, infiltration dynamics and strategies against censorship. After generating the initial codes and arranging them as a coding framework, the researchers independently identified themes from the codes. Then, they reviewed those themes iteratively until consensus on their definitions was reached in online meetings, during which the codes were also further refined. Such discussions included whether it would be appropriate to merge certain codes, or to add new ones. Whenever the coding scheme changed due to this process, each researcher re-evaluated and re-labeled the responses. This cycle was then repeated until the coding scheme was deemed satisfactory by both researchers, and inter-rater agreement had reached a reasonable level (κ =.86).

3.5 Ethical and Privacy Considerations

Because the interviews by their nature evoked potentially sensitive information, such as experiences of being discriminated against or sexually harassed, the interviewees were reminded at the beginning of each interview that they could skip any questions they did not feel comfortable answering. If

they still mentioned traumatic experiences, at emotionally charged points, we would suggest that they might like to pause the interview or skip to the next question. Each participant was assigned a randomized ID in place of her name/nickname. The interviewers carefully reviewed each recording right after the interview, and removed any identifiable content from the records prior to further analysis. The interviews took place from March to August 2021. During this period, many SNS-based LGBT+ groups were banned in China [13], and Weibo announced it would "clean up" LGBT+ content and accounts [30]. Thus, to avoid negative consequences, we have elected to withhold some details of our recruitment process and interviewees' demographics.

4 RESULTS

In this section, we first describe the bloggers' motivations for forming online communities for lesbian and bisexual women, and how they built them (RQ1). We then present our findings relating to the sampled bloggers' practices of growing such online communities, the challenges such communities faced during that process, and how such challenges were addressed (RQ2). Finally, we present details of the challenges to sustaining online communities for lesbian and bisexual women in China, including internal conflict and censorship (RQ3).

4.1 Building Lesbian and Bisexual Women's Communities on Weibo (RQ1)

4.1.1 Motivations for Establishing Communities.

Social Isolation. Lack of informational and emotional support due to social isolation was an important motivation for building lesbian and bisexual women's communities, shared by three of our bloggers (B1, B3, B4). Blogger B4 further specified that it was important to help such women who lived in rural areas, and that these underprivileged individuals constituted a large, invisible group within China's population of lesbian and bisexual women, who had less access to relevant offline information and who experienced more difficulty developing their identities than their counterparts in cities did. She stated,

"I was born in a rural area where girls marry no later than age sixteen. I was engaged by my parents, but I escaped from them. After I came to the city and learned more about my identity from the Internet, I gradually identified my sexual orientation. However, many lesbian and bisexual women living in rural areas, such as small villages in Jiang Xi, lack opportunities to learn about their sexual orientations. They may end up marrying a guy and have children without realizing they are homosexual."

This view was echoed by 11 members, most of whom had not come out to their offline social circles, and thus found it hard to seek social support as lesbian or bisexual. In particular, they were afraid of aggressively anti-LGBT+ family interventions and social stigmatization; and thus, when they experienced confusion about their identities, they chose to seek information from online social media, such as Weibo and Douban. As M1 noted,

"When I was in high school, I doubted whether I might be homosexual. Then I thought there must be something wrong with me. I didn't tell anyone around me, since I was afraid of being regarded as a source of shame. So, I looked for relevant information and talked to other lesbian and bisexual women on the Internet."

However, three of the same 11 members, plus three others, stated that it was hard to find content related to being a lesbian or bisexual woman on the Internet due to censorship and China's strict Cybersecurity Law, which restricts the dissemination of information that undermines the "social order", and thus arguably makes sharing information about the lesbian and bisexual women's community illegal [56]. M10 noted that, "[a]fter 2014 [...] all the channels through which our lesbian

and bisexual women could speak out have been facing censorship", and that this had made it more difficult for her to reach out to other lesbian and bisexual women and explore relevant online resources.

Avoidance of Harm from Outsiders. Three bloggers (B1, B2, B3) highlighted the importance of building online communities exclusively for lesbian and bisexual women to avoid being defamed, harassed, or bullied by malicious individuals from outside those populations. Specifically, they indicated that many people on China's SNSs were unfriendly toward such women, and that this fueled their own determination to keep their Weibo communities free of such outsiders' influences. As B3 noted.

"Generally, only we [i.e., lesbian and bisexual women] are active in our community, and we do not want others to disturb us. In my Weibo blog, almost everyone is friendly. However, out in the wider Weibo environment, many people are hostile and are likely to harass, threaten, or embarrass us."

Five members likewise highlighted that building communities exclusively for lesbian and bisexual women was essential to their self-protection. In part, this was because when they disclosed their sexual orientations outside such communities, they suffered various negative consequences, as M31 explained,

"Once, I left a comment under a feminist blogger's post. Then I received malicious comments from another user. She said that lesbian and bisexual women and, in particular, bisexual women were disgusting, and I was hurt by her words."

Personal Thoughts as Social Activism. All four bloggers stated that they were motivated to share their personal thoughts when building their communities, as a form of social activism. Specifically, they felt an obligation to not only ask LGBT+ women to pay more attention to women's rights and dilemmas in Chinese society, but also to speak on behalf of LGBT+ women, and to use their blogs as platforms to influence more LGBT+ women. For example, they called for more attention to be given to inclusive sexual-health education, and expressed their concerns about issues that intensified intra-community inequality (e.g., discrimination within lesbian and bisexual women's communities toward bisexual and transgender women). As B2 commented,

"I oppose speech that excludes bisexual and transgender women from the population of LGBT+ women. [...]. Lesbian and bisexual women already have less visibility and social influence [than men do] within the LGBT+ population, so we should strive for stronger voices, instead of dividing against ourselves."

Two other bloggers (B3, B4) noted lesbian and bisexual women's lack of visibility on social-media platforms, and highlighted the necessity of individuals voicing their opinions. As B3 put it,

"A random individual's voice cannot be heard by many people. I needed to become a blogger and grab the microphone so that others would hear me. There are not many female bloggers on Weibo who are also lesbian or bisexual. With my blog, I can help those who need help, and influence others by sharing my opinions with them."

Nine members said that their own feelings resonated deeply with the bloggers' opinions, perspectives, and even lifestyles, and regarded them as role models. As M5 noted,

"The bloggers pay great attention to gender inequality, and have influenced me in that direction. For example, before I joined these communities, I did not know the extent of the physical harm to women caused by childbearing. Also, I'm now more willing to pay attention to social issues, such as policies and news, where overt discrimination against women is involved."

In short, from both bloggers' and members' perspectives, lesbian and bisexual women's social isolation, need to avoid harm from outsiders, and social activism motivated them to establish online communities on Weibo.

4.1.2 The Inceptions of Lesbian and Bisexual Women's Communities. Two bloggers (B1, B3) initially decided to build their communities because they saw a potential for developing their personal accounts into forums for the exchange of information and support among lesbian and bisexual women. As B3 noted, such women "lack space to exchange ideas and speak up for ourselves. So, it is necessary to build more online communities that gather lesbian and bisexual women and allow us to communicate freely."

The other two bloggers (B2, B4) said they had started building their lesbian and bisexual women's communities because of "accidental" opportunities. B2, for instance, said she did not mean to become a blogger, but her posts with personal opinions (e.g., arguing against stereotypical views about butch identity, and supporting non-binary lesbians) were constantly re-posted by other lesbian/bisexual/feminist bloggers on Weibo, and thus attracted followers to her. As its member numbers increased, she began to feel a sense of obligation to influence others within the population of lesbian and bisexual women with her opinions. She further explained that these women have little visibility in China's public sphere, so it was meaningful to utilize her online influence to prompt them to pay attention to such inequality, and to strengthen their voice as a group. Within the community, she initiated discussions of social news related to their sexual orientations, such as the lack of legal protection for same-sex marriages, and how this situation creates obstacles to elderly lesbian couples taking care of each other. She also felt a need to facilitate the exchange of varied information and perspectives that might help other lesbian and bisexual women's identity development and relationship-building: "[M]any of my members are adolescents, who need advice to help them know how to live as an LGBT+ woman in China."

B4's key experience of building her community, on the other hand, involved Weibo's censorship. Having been an active member of a Weibo community focused on LGBT+ women's sex education, but which was taken down by Weibo, she determined to make an important contribution to the population of lesbian and bisexual women. She utilized her blog as a space in which its other members could exchange information about sex education.

In summary, we found that the bloggers were motivated to build online communities because they felt a strong obligation to mitigate lesbian and bisexual women's social isolation; to voice their personal opinions about lesbian and bisexual women's issues in China; and, sometimes, to "speak for" the wider Chinese LGBT+ women's community. Corresponding to the bloggers' motivations, members joined the focal communities because of their isolation in offline life, and because their own experiences and opinions resonated strongly with those of the bloggers. Our data also suggest that the bloggers' community-building was broadly unintentional: i.e., it was driven by a sense of obligation to support—or indeed, lead—the population of lesbian and bisexual women, which had grown out of the mere voicing of their own opinions.

4.2 Growing Lesbian and Bisexual Women's Communities on Weibo (RQ2)

4.2.1 Enhancing Community Commitment via Interaction between Bloggers and Members. All four bloggers facilitated mutual support within their communities, encouraged members to learn from others' identity-related experiences (e.g., of coming out to parents or maintaining same-sex relationships), and strove to make their blogs' members feel cared for by the community.

Publishing Posts on Members' Behalf. All four bloggers said they welcomed their members sending them private messages about the latter's confusion/questions, personal experiences, and other blog-theme-relevant information, which they wanted to publicize to other members. Notably,



Fig. 1. An example of how a blogger published a post on a member's behalf. The blogger summarized the post request and attached a screenshot of the private message to allow other community members to comprehend it better.

the bloggers would not post any information from members unless the latter explicitly stated their willingness to share it within the community. The bloggers further explained that their willingness to publish posts on their members' behalf was because they hoped to develop their blogs into forums in which lesbian and bisexual women could freely exchange and discuss such information, and where appropriate, receive support. As B2 stated, "I hope my blog can be a space where each of us can have fun, feel free to speak out, and get each other's encouragement."

After reading such messages, the bloggers would decide if the information was suitable for posting in their Weibo communities (Fig. 1). Four types of posts that the bloggers commonly published on their members' behalf were 1) solicitations of advice about problems and struggles, 2) life experiences (e.g., love stories), 3) information that related to lesbianism and female bisexuality (e.g., knowledge about same-sex sexual health and experiences of coming out), and 4) statements of what they were seeking in intimate relationships. All these posts were thoroughly anonymized by the bloggers, via removal of Weibo IDs, Weibo profile photos, city-of-residence information, school names, and so on. The bloggers assessed their members' requests that they publish these anonymous posts according to their originality, helpfulness, and relevance to lesbian and bisexual women. As B4 explained,

"I know that many lesbian and bisexual women lack knowledge about sex. In Chinese society, even talking about heterosexual sex is considered taboo, let alone facilitating inclusive sex education for lesbian and bisexual women. So I perceive sex education as a critical topic of my blog. Whenever someone raises concerns about sex or wants to share information that will teach others about sex, I always post it for them. Getting such information can be challenging for my members, both offline and in other online spaces."

Seven lesbian and bisexual women's community members told us that they had asked Weibo bloggers to post information for them. For many more members (n=17), posts seeking advice were among the most popular, because they not only conveyed useful information and allowed them to

connect with their identities, but also offered emotional support by making them feel they were not alone in their problems. As M6 commented,

"I gained useful knowledge about how to make love with someone of the same sex from the Weibo blog's posts. That was also part of a process of gradually accepting homosexual sex. Without reading those posts, I could not have understood how girls could do that, and I realized that many other community members had similar questions. I then understood that I was not the only one who knew so little about sex."

Additionally, six members mentioned that reading posts that shared personal stories enhanced their feelings of attachment or connection to their respective lesbian and bisexual women's communities, because they empathized with some aspects of the stories, connected them with their own similar circumstances, and/or imagined reaching the same destination in the future. As M33 explained,

"There was a post about a married woman who found out that she was homosexual. This resonated with me a lot because I'm also married. When I found that the woman ended up living a happy life with her girlfriend, I felt encouraged. I believe I'll eventually get out of this miserable marriage, like that woman, and have a happy life."

However, five members stated that they felt the posts they were reading were limited, in that only the bloggers could decide what kind of content could be posted and how it should be posted. They explained that sometimes they were tired of reading posts under the theme of same-sex relationships, and that there were few mechanisms to let bloggers know about these frustrations, apart from leaving comments and sending private messages. As M24 said,

"I'm tired of reading all kinds of love stories. I'm curious to know more about elder lesbians' life, for example, how they chose formality marriage. I left comments about this but never got any replies from the blogger."

Helping Members Form Offline Relationships. In addition to helping them seek advice and share life experiences, bloggers sometimes facilitated their community members' quests for offline same-sex relationships by sharing non-anonymous posts in their blogs. In such posts, members tended to leave their contact information (i.e., WeChat or Weibo ID). However, this process involved a risk that the person claiming to seek a relationship was catfishing (e.g., a predatory man using a fake account to present himself as a lesbian or bisexual woman). Thus, two bloggers (B1, B3) strictly scrutinized the profiles of those users who requested that they post such information, and before actioning such requests, checked for any discrepancies between the users' claimed identity and other information, including gender, profile photos, and prior posts. As B3 mentioned,

"I once had a request from someone seeking a relationship. I checked the person's Weibo profile to see if she was really lesbian or bisexual, and found that her profile photos were downloaded from the Internet. I think that it was really a malicious guy trying to catfish my members."

The same two bloggers also highlighted that, because they hoped to protect members who were seeking offline relationships, they sought to control the audiences for those members' posts. To achieve this, they set them as only visible to their blog members, and prohibited re-posting, in consideration of the fact that they might contain personal information such as age, city of residence, social media ID, occupation, school name, and even selfies, which could lead to the original poster unexpectedly being outed in offline life and/or becoming the target of cyberbullying. In spite of these precautions, however, as B1 noted: "I know that it is still dangerous!"

Eight of the members told us that they had also engaged in this process, i.e., sought platonic and non-platonic offline relationships by asking the bloggers to help them post information for them, or

reaching out to lesbian and bisexual women who had asked the bloggers to do so. They gave three reasons for seeking bloggers' help with finding offline relationships. First, they felt firmly attached to their respective online communities, and believed that such communities' other members must be friendly people to talk to. As M8 put it:

"I often read other members' comments and reply to them in the blog. Everyone is so friendly and fun. So I believe that there are greater chances that I'll meet someone whom I'm interested in."

Second, in their role as readers of such posts written by others, these eight members said they tended to trust the posts' content. As M30 noted:

"I trust the posts because they are pre-screened by the bloggers. Typically, these posts have detailed information about someone's location and hobbies, making it easier to see if there could be a match."

Lastly, although risks of outsiders' harassment still existed, members who asked bloggers to post information on their behalf stated that they were not especially worried about it. This, they said, was because they could report the outsiders to the bloggers, who could then punish these bad actors by publicizing their account details in their blogs, or in other ways. As M28 said:

"I think in general, posting my information is pretty safe. If some men harass me, I will report to the blogger, and she will blacklist these people."

Communication with Members via Private Messages. Two bloggers (B2, B4) mentioned that, while some community members left them questions via private messages in the hope of receiving answers, many others treated private-message channels as personal journals: detailing their important daily moments and emotions, without necessarily expecting the bloggers to respond. However, both these bloggers highlighted that they were glad to reply even to those journal-like messages, because they felt responsible for giving feedback. As B4 noted:

"I receive more than thirteen hundred private messages per day. Some of them are asking questions. However, many of them are simply sharing their life. I always read every private message when I have time; I am afraid of letting my members down if I don't do it."

More specifically, B4 told us that through private messaging, she was able to help several members who had threatened suicide, citing family pressure and/or breakups:

"I saved several members' lives after reading their messages that they were going to kill themselves. Whenever I received that kind of message, I would check with that person by messaging back. If she didn't reply, I would seek more information, especially her place of residence, from her previous posts. I would then call the police in that place, and write a post asking for help from members who also lived there."

Six members explained that they journaled their daily activities and emotions in the form of private messages to bloggers because it was hard to find any other online spaces with fewer risks of unintentional disclosure. As well as the privateness of the messaging channel *per se*, this sense of security was bound up with trust in the bloggers and feelings of emotional attachment to them. As M19 explained:

"My private chat with the blogger is basically like keeping a journal. I have not come out in my social circles, so the blogger is the only person I can disclose my sexuality to. I feel that she is my best friend, even though she does not know me personally."

This member subgroup further explained that they had started sending messages to certain bloggers because they saw other members' comments about receiving replies from those bloggers and felt encouraged to do so.

4.2.2 Dealing with the Challenge of Infiltration.

Infiltration Dynamics. Although members felt generally safe within their respective communities, largely because the bloggers assiduously blocked outsiders (mainly heterosexual men) to protect legitimate members from being harassed, some harassment was unavoidable. Also, blocking members and declining borderline-suspicious joiner requests resulted in a huge amount of labor. All four bloggers and 13 members stated that infiltration and harassment by outsiders negatively impacted their satisfaction with their communities and, in the case of members, their willingness to stay in them. Members could be traumatized by outsiders' malicious behaviors such as leaving offensive, anti-LGBT+ comments, joining communities with accounts falsely depicting themselves as women, harassing members with sexual comments and photos, and even sexual coercion. As M6 mentioned:

"I once asked the blogger to post something for me in the lesbian and bisexual women's community. After that post was published, many male strangers sent private messages, including some nude photos, to me. I felt disgusted and deleted all of them. Now I am afraid to post anything in the blog."

All the bloggers specified that the low cost of registering multiple accounts on Weibo, the easy processes of joining the lesbian and bisexual women's communities on that platform, and its lack of a mechanism to block outsiders with multiple accounts magnified the problem of infiltration. As B3 said: "If I remove someone from my members list and block him, he will keep observing my blog and leaving hate comments with his many other accounts. There is no good way to block this person."

Bloggers B1 and B2 disagreed that doing this was impossible, but did express their frustration about the tedious work involved in doing so. B2 commented: "I hope to find a comfortable space. Although many of us are gathering under my blog, sometimes 'maggots' will invade our territory. I do not even have a fence to protect my space. The only fence is me". These two bloggers highlighted that they were struggling to balance their responsibility to maintain their communities' boundaries against the extensive labor and emotional effort involved in doing so. As B1 mentioned:

"The outsiders use multiple accounts to leave comments, some threatening me and others just aimed at making me upset. It takes me considerable time to remove their comments. Moreover, every time I have to do so, I am emotionally hurt again, because I have to read them again."

Strategies for Preventing Infiltration. All four bloggers shared their experiences of collaborating with their members to deal with infiltration by malicious outsiders. The bloggers deployed varied strategies such as posting warning messages, banning bad actors, and publicizing bad actors' account information to avoid their re-entry or joining other blogs aimed at lesbian and bisexual women. All had pinned warning messages to the tops of their blogs, which served as a basic, preventive method of turning outsiders away. As B2 noted:

"[A] pinned post at the top of my blog [...] warns Weibo users that my blog is only for LGBT+ women. I also mentioned 'If you don't belong to this group, you are not welcome and should step away from my blog, otherwise you will regret your decision."

If bloggers detected that comments under posts were from outsiders, they would place those outsiders' accounts on Weibo's blacklist, which meant that the account holders could not view, follow, or comment under the bloggers' posts. However, two bloggers (B1, B3) noted that the number of users they could blacklist was limited, and that in any case, the blacklisting feature could not prevent bad actors from using multiple accounts to join their communities. As B3 put it,

"Some men followed our communities and left many discriminatory comments under my posts. Then I discovered and blacklisted them. After I blacklisted them, they sometimes just appeared with other accounts. I had no means of coping with this situation."

In addition, two bloggers (B1, B3) mentioned the difficulty of recognizing when Weibo account holders were posing as women, and noted their worry about misinterpreting genuine users' accounts as fake ones of this kind – a problem exacerbated by the small number of posts, photos, etc., on actual members' "throwaway" accounts. As B1 explained:

"Because users are afraid of being recognized by their families and friends, they often use 'throwaway' accounts with minimal profile information and rarely interact with other users through these accounts. This makes it harder to differentiate them from fake accounts."

If outsiders engaged in harmful behaviors, such as harassing members or leaving discriminatory comments, three bloggers (B1, B2, B3) disclosed these malicious actors' account information in their blogs, to alert all members and prevent them from being harmed. As B2 stated:

"The most important benefit of publicizing the person's account is that, at least in my blog, people will avoid this person, unless they change all their profile information or use other accounts. But generally, I publicize outsiders' accounts to increase their costs of joining and participating in my community."

In addition to the measures noted above, bloggers and members worked together to protect their communities. For example, most identification of bad actors was based on community vetting, with every member encouraged to participate in identifying and reporting bad actors. As B3 explained:

"Preventing outsiders' infiltration is time-consuming work. More importantly, if I do this by myself, reading those people's offensive comments all the time makes me uncomfortable. Whenever I need to blacklist someone, I have to read the person's comment, which constitutes emotional torture. So I want to encourage more members to take this responsibility for protecting our space."

Eight members shared their corresponding experiences of identifying infiltrators and reporting them, which they tended to do via private messaging with bloggers. They also highlighted their sense of obligations to engage in community vetting. As M4 mentioned:

"Whenever I saw someone leaving suspicious comments under the blogger's posts, I wrote down the person's nickname and ID and reported to the blogger. I feel that I should be responsible for this."

Two bloggers (B2, B4) further stated that they might encourage their members to fight back against bad actors, by leaving unfriendly comments on their blogs and/or sending them threatening private messages. They explained that these tactics could make outsiders afraid of joining lesbian and bisexual women's communities and thus prevent infiltration more efficiently. As B2 put it,

"People come to my blog trying to build our own community and have happy conversations. So, if invaders are harassing my members, I have to not only get them to leave, but ideally, make them afraid of stepping into our community again. So, I reveal these people's Weibo account information and encourage my members to send private messages or comment under those people's posts to retaliate."

Six members agreed with the bloggers' strategy, and with the necessity of punishing those bad actors. As M23 explained:

"Those men who knew our community didn't welcome men, but still insisted on joining it, would never learn if we just let them go. It's very important to teach them a lesson."

Most members we interviewed also noted that witnessing and participating in this type of collaboration on community safety also boosted members' faith in such safety. As M13 noted:

"When I saw male users who were commenting under the blogger's posts, I sent private messages to the blogger to notify her. As a member, I feel I should help the blogger to maintain the community's safety."

In summary, we found that our blogger interviewees deployed various strategies to encourage their members' commitment to empowering their communities. We also observed that infiltration by outsiders constituted a challenge to members' commitment to, satisfaction with, and levels of contribution to their communities. However, collaborative efforts between the bloggers and their members helped mitigate this challenge and even encouraged more profound community commitment among the latter.

4.3 Sustaining Lesbian and Bisexual Women's Communities on Weibo (RQ3)

4.3.1 Regulating Community Members.

The Challenge of Regulating Members. Three bloggers (B1, B3, B4) indicated that due to community members' diverse perspectives and inflammatory comments that might provoke other members' emotional responses—e.g., comments that stigmatize and invalidate bisexuals or transgender women—it became crucial for the bloggers to maintain their communities' inclusion and solidarity. The importance of regulating community members for this purpose was echoed by 18 members. However, the bloggers also expressed worries that if they deployed harsh methods such as blacklisting in this context, the member on the receiving end of such methods would become further marginalized. As B4 stated:

"I'm aware some of my members might have mental disorders. I don't want to block them because I'm worried that their mental health may get worse if I 'punish' them."

The same three bloggers further noted that regulating members could even make the bloggers themselves become targets of abuse, since some members might misinterpret why they had taken these actions and mobilize other members to retaliate against them. This danger was magnified by Weibo's lack of protective methods, as B4 explained:

"Although members seem supportive of bloggers when things are going well, the relationship between bloggers and members is not stable. Bloggers can easily be misunderstood and become targets of cyberbullying. [...] We have to protect ourselves to survive."

Additionally, B1, B3, and B4 all mentioned the challenges of validating someone as a transgender woman and deciding whether to include her in their online communities. They explained that this process was among the most likely causes of intra-community conflicts, because some members harbored misunderstandings of transgender women. For instance, the bloggers mentioned that some of their members had insisted transgender women be rejected if they could not prove that they had received surgeries, often citing previous cases of catfishing by men falsely claiming to be transgender women. However, these bloggers said, other members felt equally strongly that their communities should be inclusive for people who identified as transgender women, since transgender treatment was not prevalent in China, and not every transgender woman could afford the huge expense of surgery. For the bloggers, it was understandably risky to agree with either side in such debates. As B1 mentioned:

"When I tried to regulate this conflict, I said that I do not discriminate against transgender women, but I would question someone's identity if the person claimed to be a transgender woman but did not receive any kinds of surgeries. Many members commented very harshly

on my opinion, posting aggressive and rude comments, saying that I am anti-transgender. I felt like they were examining and criticizing me from a condescending viewpoint."

B4 also mentioned an incident in which another lesbian blogger experienced cyberbullying and was forced to quit Weibo because she allowed a transgender woman who had not received surgeries to help her regulate the community. And, when B4 tried to support that blogger, she also became the target of cyberbullying:

"At that time, my real name, phone number, WeChat ID, and QQ ID were all exposed online by those people. I was really afraid because I could not resist against such a storm."

Dealing with the Challenge of Regulating Members. Three bloggers (B1, B2, B3) shared the same strategy for regulating members: instead of blocking or blacklisting those who posted inflammatory comments, they would respond to the members' comments and guide the ensuing discussions. Two (B1, B3) further noted that, rather than replying directly under such members' comments, they would add replies under their original posts. Again, the bloggers said that they considered all LGBT+ women to be socially stigmatized and vulnerable, and so did not want to see specific members targeted or cyberbullied simply because their opinions differed from their own or from those of the other members. As B3 noted:

"After all, the person is still considered a member of our community. If I directly reply to a member by saying that I don't agree with her, she may be cyberbullied by many other members [...]. I would be making her the target of cyberbullies."

This strategy was applauded by many member interviewees, who believed the bloggers were trying to protect their communities' inclusiveness and diversity of opinions. A typical comment along these lines was provided by M32: "I feel that the blogger welcomes all kinds of thoughts and inputs. I really like the strategy".

Although the bloggers strove to strike a balance between their roles as mediators and judges, they could not entirely avoid being misunderstood and targeted by their members. All four of our bloggers felt discouraged by this dynamic. To avoid being targeted and harmed due to misunderstandings and intra-community conflicts, all chose the path of self-censorship to varying degrees. As B3 explained:

"When maintaining a lesbian and bisexual women's community, I feel I should minimize posting of my personal perspectives, because no matter how well I elaborate my thoughts, and how thoroughly I discuss the nuances of certain topics, there are always some people who misinterpret my ideas and cyberbully me because their own perspectives are different."

Eight members said they understood that the bloggers might fail to regulate the existing members in some discussions, because it was impossible to control every member's opinions. However, all these members said they would leave a community if they felt that inflammatory, offensive, and biased comments had become too prevalent.

4.3.2 Resisting Censorship.

The Challenge of Weibo Censorship. In addition to the difficulties of regulating conflicts among community members, all four bloggers and 21 members noted that Weibo's strict censorship constituted a major obstacle to sustaining lesbian and bisexual women's online communities. The bloggers explained that some content, including about feminism and LGBT+ sexual health, could make certain posts or even their whole accounts subject to strict censorship, since feminism is deemed by Weibo to be "inflammatory" and likely to arouse public unrest [80], while the latter type of information is deemed "erotic" and harms "social order" [29, 56]. As B4 noted:



Fig. 2. Demo case of how users added strokes on a photo/text screenshot to avoid censorship by the Weibo platform.

"Posts related to sex education, such as how to engage in safe-sex behaviors, and feminist expressions including opposition to gender inequality in workplaces and stereotypical representations of females on social media, are most likely to be censored. [...] This is extremely unfair for all women, not just LGBT+ women. Why are our voices silenced?"

Two bloggers (B1, B2) told us that some of their posts had their hashtags removed by the platform, making it impossible for people who searched via those hashtags to see them. Additionally, as B1 mentioned,

"[t]here were sensitive words like 'feminism', 'sex', and 'LGBT+' in some of my prior posts, and the visibility of those posts was blocked. That is, I could see my own posts, but my members couldn't. And there was no way to change it."

Moreover, all the bloggers expressed extreme concern about Weibo shutting their accounts down entirely, the most severe censorship method available. This concern, they added, was intensified by Weibo's ambiguous censorship rules, which were not publicly available and not subject to challenge or appeal. As B2 noted:

"I contacted Weibo asking about the rules of censorship: for example, on what conditions my account might be shut down. The representative told me that this was internal information and that censorship decisions were made solely by the company."

Seven members mentioned their frustration and feelings of helplessness when their preferred bloggers' accounts were deleted. It was difficult to get in touch with the bloggers or other members in this circumstance, because most lesbian and bisexual women conceal their contact information to avoid being recognized in offline contexts. As M13 noted:

"One of my favorite bloggers got dropped by her platform. I felt 'homeless', because my spiritual home had been destroyed. And I never found that blogger again."

Although members also expressed concern that bloggers suffered from censorship and suspension threats, 15 indicated that they were not worried about such actions being taken against their own accounts. Of these 15, 11 explained that they used throwaway accounts. Many also mentioned that they did not spend much time maintaining their throwaway accounts; therefore, as M23 put it, "I do not care if my throwaway account is censored or not. If it gets shut down, I can register a new account." Nevertheless, seven members stated that regardless of whether they were using their main accounts or throwaway accounts, they seldom published posts that included LGBT+ content, because they had no intention of seeking offline relationships or of coming out via Weibo. Therefore, they felt that their accounts being shut down was highly unlikely. As M1 stated, "I never post about my life or LGBT+ topics in my accounts. So I do not have to worry that they will get censored."

Dealing with the Challenge of Weibo's Censorship. Two bloggers (B1, B3) stated that they adopted various strategies for avoiding the attention of censorship algorithms, ranging from verbal techniques like using homophones of sensitive words, puns, coded language, and splitting Chinese characters, to uploading photos that contained text (Fig. 2), with or without further image editing. As B1 explained:

"Before posting photos that I think might get blocked, I usually edit them by adding several strokes to them. Sometimes it really helps photos survive automatic detection."

Six members commented that they had learned such strategies from bloggers, and mentioned that their adoption of these strategies could protect their communities from potential censorship. For instance, M30 stated:

"I once saw that a blogger had split the characters in her post. I didn't figure out why until I saw others' comments. From that, I learned how to use that method to say something that might be regarded as sensitive. I'm also protecting our community from censorship."

Three bloggers (B1, B2, B4) mentioned that, because the risks of censorship always existed, even when they deployed the above-mentioned strategies, they aimed to post relatively little sensitive content, especially if it featured aggressively feminist opinions. They further explained that this decision was the inevitable outcome of weighing the benefits of unmasking gender inequality against the risks of being shut down completely by the platform. As B2 put it:

"I would be afraid to post something with radical opinions, because I've seen many users' accounts shut down just because they included one post about a sensitive topic such as feminism. Because the platform has such a strong punishment at its disposal, people are afraid to speak out."

Three of the four bloggers (B1, B3, B4) stated that, because discussing sensitive content such as sex education and feminism on Weibo triggered risks of being shut down, they had decided to establish smaller groups on a dating app that is exclusively designed for LGBT+ women, to which they transferred their posts and discussions about sensitive topics. They felt that such an app could serve as relatively safe and private space in which they could stay connected to their blog members and discuss sensitive topics outside of their Weibo communities, with less risk of censorship. As B3 stated: "I established an invite-only group on a dating app and invited my members to join it. That way, we did not have to discuss sex or feminism on Weibo."

Among our member interviewees, 12 confirmed that they had received and accepted such invitations to dating-app groups, and endorsed the bloggers' views of such groups' advantages and purposes. They stated that as some of their discussion topics might involve sex and feminism, small discussion groups on dating apps mitigated the risks of being censored, since the smaller size of those groups made them less visible to the non-LGBT+ population. As M10 mentioned: "We don't have to get that worried about censorship on that app. So, many of our topics are pretty erotic."

In summary, we found that as a given community matured and moved into a self-sustaining, interactive environment, bloggers came to face challenges in regulating existing members and dealing with Weibo's strict censorship. Our data suggests that the bloggers performed as both mediators and judges by replying to inflammatory comments and guiding the discussions. We also observed that to avoid Weibo's censorship, the bloggers adopted various strategies, such as deploying self-censorship, using coded language, and transferring to other platforms.

5 DISCUSSION

In summary, our research shows how four prominent lesbian bloggers in China initiated online communities by sharing their personal opinions and enabling those communities' members to

publish posts containing their questions, experiences, and attempts at relationship-building (RQ1). We also found that, when growing such communities, members' communication with bloggers via private messages served as a safe space in which to journal their experiences as lesbian and bisexual women, and helped them feel connected with the bloggers and blog-centered communities. Moreover, as the four focal online communities grew in terms of membership numbers, they faced external challenges, notably including infiltration by hostile and/or abusive heterosexual males. Bloggers and members collaborated to maintain the safety and boundaries of their online spaces against these and other external threats (RQ2). Lastly, in their mature form, the focal lesbian and bisexual women's communities faced internal as well as external challenges, including but not limited to conflicts arising from intra-community discrimination and censorship by Weibo (RQ3). For bloggers, the personal toll of taking action against both internal conflict and external oppression was very high (RQ3). In the following sections, we discuss these findings in more depth, along with their practical design implications.

5.1 Initiating Online Communities for Chinese Lesbian and Bisexual Women

The sampled lesbian bloggers were all motivated to establish online communities by a desire to express their personal opinions and engage in social activism, specifically, for women's rights and enhancement of Chinese lesbian and bisexual women's visibility. These findings resonate with prior literature on LGBT+ online communities on Weibo [14, 81], which reported that bloggers' practices of promoting visibility could empower China's LGBT+ population. Our findings also highlight that mitigation of social isolation and avoidance of harm at the hands of anti-LGBT+ users were important drivers of Chinese lesbian and bisexual women's perceived need for online-community membership. Prior studies have suggested that, to succeed, new LGBT+ online communities must satisfy their members' needs to exchange social support [3, 27, 32] while at the same time protecting their safety and privacy [21, 31, 57]. This chimes with our interview data showing that the four target online communities were initiated based on clear goals of helping lesbian and bisexual women exchange social support safely and privately [43, 78].

5.2 Growing Online Communities for Chinese Lesbian and Bisexual Women

Bloggers as Bridge Builders. Our results also show that the sampled bloggers frequently responded to members' requests to publish anonymous posts regarding questions (e.g., how to come out to one's parents) and experiences (e.g., love stories) that were related to their sexual orientations, and facilitated members' discussions under such posts. They also helped disseminate members' posts aimed at finding people to have offline relationships with. The bloggers' rationales for doing this included protecting the relevant members' privacy, and that such publication might motivate other members to share their experiences more openly, at least within their respective online lesbian and bisexual women's communities. In other words, the bloggers played an essential role as agents: assisting their "clients" with vetting, editing (e.g., anonymizing), and publishing posts in line with the latter's needs. This echoes Younas et al.'s [83] findings about how community moderators helped Pakistani female victims post about family abuse, trauma, and taboo topics such as abortion, in a manner that preserved their privacy and thus encouraged more victims to speak out.

The bloggers' practice of publishing posts on behalf of certain community members also made other members realize they were not alone in confronting particular issues, and this in turn helped them feel that they were part of their respective lesbian and bisexual women's communities. As prior research has also noted, the members of LGBT+ communities can feel attached to those communities, as well as less isolated, via identification with others members' experiences and problems [35, 38]. Moreover, when people feel that their own experiences resonate with those of such

a community, they become more likely to produce valuable content for it [11, 41]. Our findings build on those of prior research by revealing a distinctive mode of Chinese lesbian and bisexual women's interaction with one another, i.e., third-party anonymized publication by bloggers and commenting under the published posts. Our data also imply that this practice facilitated members' identity development [27] by boosting their sense of belonging to the community and their exchanges of social support.

However, having bloggers perform as bridge builders in this manner could generate information "gatekeeping" problems [8]. That is, the fact that the bloggers are in charge of information dissemination might give rise to tensions between, on the one hand, bloggers' preferences around sharing certain information, and on the other, the value members place on being presented with as many sources of information as possible [51]. Moreover, it is likely that certain types of information have more visibility than others [51]. Future designs for online communities of this type should therefore include new tools to help bloggers and members collaboratively manage information flows.

Our findings also highlight the profound necessity of anonymous posting in Chinese lesbian and bisexual women's online communities. In China, most such women choose to conceal their sexual identities in offline contexts [50, 55, 61] and find it hard to separate their online and offline social circles on social-media platforms [55]. Thus, preventing community members from being identifiable to their offline social circles is critical. Anonymous posting appears to help members unburden themselves by disclosing their stigmatized identities, personal experiences (e.g., coming out, stress), and some taboo topics (e.g., sex). However, bloggers' "agenting" of such posts comes at a huge personal cost to themselves, given the enormous amount of time and effort it takes to approve and edit content, and verify members' identities based on their necessarily limited profile information. Enabling every member of such communities to anonymously post on their own could be a solution, but it might also increase the incidence of harassing posts. Thus, to lessen bloggers' above-mentioned burdens around anonymous-post requests, future designers should consider enhancing privacy settings by allowing members to differentiate the visibility of their data—such as the visibility of their profiles, previous posts, and bloggers they are following across different audiences. Under such conditions, if members set their data to be visible to the bloggers, the bloggers could verify members' identity with less effort.

Bonds Formed through One-Way Private Messaging. Some of our member interviewees shared their day-to-day experiences that were related to their sexual orientations with the sampled bloggers via private messaging channels. This served as a safe way to keep track of such experiences, to disclose intimate feelings, and to seek help when having mental health crises. As noted above, the members did not expect replies to all, or in some cases, any of their private messages, but nevertheless felt emotionally attached to the bloggers. This dynamic has not previously been reported in the literature. There are two likely reasons for these findings: first, that the sampled members faced difficulties in finding safe spaces in which to disclose their sexual identities, but tended to see the bloggers as authoritative, trustworthy figures [55, 83]; and second, that members might collectively build relationships with the bloggers via reading the latter's replies to other members' comments and questions on posts visible to the whole community. This suggests that lesbian and bisexual members can build relationships with bloggers without having direct interactions with them. Conversely, interaction through private messages might help members gain the trust of bloggers, insofar as records of members' deep self-disclosure in message journals is fairly strong evidence of their bona fides as lesbian and bisexual women.

However, our findings revealed that the sampled bloggers found it hard to cope with private messages from members, not only in terms of sheer volume, but because they felt strong needs both to protect the members' privacy and to watch out for certain types messages, especially

suicidal ones [18, 19, 39, 52, 77]. Unfortunately, Weibo has no tools to help its bloggers deal with such issues. To relieve bloggers' burdens related to coping with private messages, future designers should consider building in mechanisms that help them offer proper support to members who suffer from mental-health issues. In particular, it would be helpful to design systems that automatically detect the content of members' messages and prioritize certain ones, according to rules that are customizable by bloggers. However, designers of such systems should carefully adopt content-detection methods, given that an insensitive technological approach might amplify Chinese lesbian and bisexual women's existing, justifiable fears of being monitored, censored, and outed [64]. Another promising approach would be to design interventions that encourage members of lesbian and bisexual women's online communities to give one another peer support. A good model for this mechanism is the *7-cups* ² platform, which recruits volunteers to give emotional support to people who suffer from mental-health issues and need listeners [9].

Collaborative Efforts to Protect Communities from Outsiders' Infiltration. Our finding that infiltration and harassment from outsiders, especially heterosexual men, constituted a critical challenge to growing lesbian and bisexual women's online communities on Weibo is in line with those of previous studies: i.e., that these phenomena trigger members to shift, limit, or stop their community participation [16, 20, 23, 25].

We also found that infiltrators' use of multiple accounts intensified the bloggers' expenditure of time and energy on banning them. This was chiefly due to Weibo's lack of methods for identifying users with multiple accounts. Solutions might nevertheless lie in social-media platforms' enhancement of their user-management mechanisms, such as updating their "Report" buttons to encourage users to report infiltrators, and enabling permanent IP address bans to reduce bloggers' workload in blacklisting outsiders' multiple accounts. However, adopting such solutions could concurrently raise lesbian and bisexual women's concerns about using the platforms, in light of our findings that-like infiltrators-some members of lesbian and bisexual women's communities who feared being outed also used throwaway accounts, making it difficult for bloggers to differentiate them from fake/malicious outsider accounts. Therefore, tracking IP addresses might lead to some genuine lesbian and bisexual women being blocked, and/or accidentally disclosing their identities, if their IP addresses are not protected. To resolve these issues, one alternative would be to rely on community members' collaboration in setting up invite-only communities [31] or membershipapproval mechanisms for existing communities. Of course, new technology for detecting malicious accounts' behaviors (e.g., [2, 15]) could also be helpful in this regard; but again, its use might trigger concerns about being monitored, which could be mitigated by participatory design sessions [5].

The sampled lesbian bloggers' other strategies for dealing with infiltration, such as posting warning messages, identifying and banning particular accounts, and even publicizing outsiders' account information to shame them and encouraging members to send them hate mail, have been found effective means of stabilizing online communities of stigmatized people: e.g., by Yeshua-Katz [82]. Moreover, the higher the level of social stigma attached to an online community, the more likely it is to be strongly internally regulated [82]. Therefore, given the profound stigma associated with being a lesbian or bisexual woman in China, the aggressive practices deployed to maintain their online communities' boundaries should not surprise us. However, enacting strict standards and aggressive methods to protect such groups might give rise to new risks, such as tensions among the community's existing members. As our findings also reveal, the bloggers sometimes became the targets of cyberbullying by their members when they endorsed or strove to remain neutral about controversial perspectives, and/or attempted to manage inflammatory comments. However, these phenomena remain in need of further research.

²https://www.7cups.com/

in machine-unreadable ways.

5.3 Sustaining Online Communities for Chinese Lesbian and Bisexual Women

Internal Conflict and Threats to Bloggers. We found internal conflict to be one of the main challenges to the stability of Chinese lesbian and bisexual women's communities on Weibo. Our data suggest that such internal conflict is manifested chiefly in offensive comments stemming from intra-community discrimination against bisexual and transgender women, and that regulation of such conflict was highly burdensome to the bloggers. These findings echo previous ones from Western contexts: that LGBT+ community members stigmatize, invalidate, and erase bisexual and transgender users due to homonormativity, stereotypical views of sex and gender binaries, and lack of understanding of bisexual and transgender people [21, 65, 69, 74]. Additionally, however, the present study has revealed how intra-community discrimination influences both bloggers and members. That is, discrimination is likely to arouse conflicts among members, and bloggers who intervened in such conflicts sometimes became victims of cyberbullying themselves, as noted above; while for members, intra-community discrimination might intensify homonormativity and inequality [74].

In any case, the sampled bloggers worried about being harmed online by members unhappy with their views about bisexual and transgender women joining their communities. This constitutes an important challenge to sustaining communities through establishing and enforcing rules and norms [17, 22, 48]. Thus, the bloggers faced a dilemma: on the one hand, failing to ban disruptive and threatening members was likely to cause future insider harm and disturbance of communities' regulations and norms; but on the other, banning them could cause further harm, e.g., if they were suffering from severe mental-health or anger issues [79]. Providing social support, especially support from community affirmations compatible with China's collectivist culture, should be considered as a sustainable approach to bloggers' moderation [22]. Additionally, the development of tools that can not only perform automatic tasks in moderation, but also have empathetic responses is also recommended [22].

Collaborative Efforts to Ensure Community Survival under Conditions of Censorship. Lastly, our findings show that both of our interviewee groups worried about censorship of LGBT+content. They also believed that they were unfairly treated by Weibo. This echoes the results of one prior study [67], which found social-media users not only felt aggrieved by losing access to content that censors had removed, but felt personally persecuted by the censorship process [67]. To circumvent censorship by Weibo, the sampled bloggers and members collaborated in deploying varied strategies, and adjusted their online behaviors, in line with prior findings [47] that Chinese Weibo users deployed substitute terms (e.g., homophones) for blocked words, and expressed themselves

Second, the sampled bloggers self-censored content deemed sensitive in China, such as feminism. Prior research [64, 67] has reported similar findings: e.g., that journalists filing reports via the Internet in countries where their activities were illegal, and activists who took part in civil disobedience, self-censored information such as their personal photos and other information that was either explicit or unique, to avoid potential censorship by platforms. Moreover, our interview findings indicated that our participants tended to entirely avoid mentioning certain topics, such as sex education and feminism, on their Weibo pages. Although this indeed helped them evade the platform's censorship, it also meant that some classes of potentially vital information to the focal lesbian and bisexual women's communities was simply missing, a problem that could reasonably be expected to negatively impact such communities' long-term sustainability [43], due to users leaving platforms that block such information, and seeking it elsewhere [67]. Additionally, if an online community is filled with content that has been strategically produced with a view to avoiding

censorship, this strategy may be obvious to its members, and prompt them to fear contributing because it is obvious that the whole community is under surveillance.

Third, we found that some of our interviewees created or joined invite-only lesbian and bisexual women's groups on a LGBT+ women's dating app to avoid Weibo's stricter censorship. As well as allowing them to discuss sensitive topics relatively freely, this approach mitigated their concerns that their interpersonal connections would be suddenly lost due to unannounced censorship-related shutdowns of their entire Weibo communities. Nevertheless, it is notoriously hard to prevent governments from scrutinizing online information [75]. For that reason, Hiruncharoenvate et al. [40] have proposed *popup networks*, a decentralized model of social networking in which there are no central arbiters to handle accounts or verify identities. As such, this model eliminates the need for data to be transferred to the Internet during service disruptions, including those caused intentionally by government censors [40]. Future designers could usefully refer to this decentralized model when seeking to keep stigmatized online communities secure from the risk of being shut down.

5.4 Limitations

Our study has several limitations that should be acknowledged. First, due to the limited number of sampled Weibo bloggers, our findings may not be generalizable to all types of LGBT+ communities on Weibo or on other social-media platforms such as Chaohua and Douban 3. It will therefore be essential to build further on the findings of this study, not least when it comes to designing or re-designing safe online spaces for LGBT+ women's communities. Second, the majority of our interviewees were college-educated or currently attending college. In future research on this topic, larger sample sizes characterized by greater diversity of socioeconomic background and educational attainment would tend to increase both the richness of the qualitative findings and such research's overall generalizability [65]. Third, the individuals in our sample consisted only of lesbian and bisexual women, meaning that the perspectives of other LGBT+ women (e.g., transgender, pansexual, polysexual women) are absent from it. Whether our study's results are applicable to other LGBT+ women still needs to be explored in future research [74]. Lastly, since prior research found that the building of LGBT+ online communities is influenced by cultural contexts [36, 57], future research on other socially conservative and/or collectivist nations and regions will be needed if we are to develop a rounded understanding of the role of cultural influence in such communities' challenges and the strategies adopted to cope with them.

6 CONCLUSIONS

This study explored how 40 Chinese lesbian and bisexual women initiated, grew, and sustained four online communities on Weibo in the face of both external and internal challenges, including infiltration by men and non-LGBT+ women, censorship by Weibo, and feuds arising from intra-community discrimination. Our interviewees commonly shared concerns about being identified on Weibo by people from their offline social circles. Thus, the bloggers' communities were critically important to them, as a means of gaining access to a trusted person—the blogger—who could anonymize and mediate their sharing of thoughts, feelings, and appeals for support and offline relationships. We also found that the bloggers and members deployed intense collective methods of vetting, shunning and shaming outsiders who infiltrated their communities. They also collaboratively coped with the platform's censorship by generating content that evaded censorship policies, notably those enforced by algorithms. Last but not least, this research has revealed some possibly unique obstacles that Chinese lesbian and bisexual women face when trying to sustain

³https://chinadigitaltimes.net/2019/04/weibo-reverses-ban-on-lesbian-content-amid-uproar/

their online communities, and which are worthy of further exploration. One is the joint impact of intra-community discrimination and censorship, which multiplies the difficulties of identifying "safe" content to share. We believe that our work—and in particular, its design proposals for online communities of stigmatized groups—has considerable practical potential to help support people in conservative societies, as well as potential as a foundation for further scholarship.

REFERENCES

- [1] Precious Adesina. 2019. Weibo is removing content with the les hashtag. https://www.pinknews.co.uk/2019/04/15/weibobans-lesbian-hashtag/
- [2] Elif Varol Altay and Bilal Alatas. 2018. Detection of cyberbullying in social networks using machine learning methods. In 2018 International Congress on Big Data, Deep Learning and Fighting Cyber Terrorism (IBIGDELFT). IEEE, 87–91.
- [3] Nazanin Andalibi and Andrea Forte. 2018. Responding to sensitive disclosures on social media: A decision-making framework. *ACM Transactions on Computer-Human Interaction (TOCHI)* 25, 6 (2018), 1–29.
- [4] Paul Angelo and Dominic Bocci. 2021. *The Changing Landscape of Global LGBTQ Rights*. https://www.cfr.org/article/changing-landscape-global-lgbtq-rights
- [5] Zahra Ashktorab and Jessica Vitak. 2016. Designing cyberbullying mitigation and prevention solutions through participatory design with teenagers. In Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems. 3895–3905.
- [6] John Balzano. 2007. Toward a Gay-Friendly China: Legal Implications of Transition for Gays and Lesbians. Law & Sexuality: Rev. Lesbian, Gay, Bisexual & Transgender Legal Issues 16 (2007), 1.
- [7] Kristen Barta and Nazanin Andalibi. 2021. Constructing Authenticity on TikTok: Social Norms and Social Support on the "Fun" Platform. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW2 (2021), 1–29.
- [8] Karine Barzilai-Nahon. 2008. Toward a theory of network gatekeeping: A framework for exploring information control. *Journal of the American society for information science and technology* 59, 9 (2008), 1493–1512.
- [9] Amit Baumel, Christoph U Correll, and Michael Birnbaum. 2016. Adaptation of a peer based online emotional support program as an adjunct to treatment for people with schizophrenia-spectrum disorders. *Internet interventions* 4 (2016), 35–42.
- [10] Lindsay Blackwell, Jean Hardy, Tawfiq Ammari, Tiffany Veinot, Cliff Lampe, and Sarita Schoenebeck. 2016. LGBT parents and social media: Advocacy, privacy, and disclosure during shifting social movements. In Proceedings of the 2016 CHI conference on human factors in computing systems. 610–622.
- [11] Anita L Blanchard and M Lynne Markus. 2004. The experienced" sense" of a virtual community: Characteristics and processes. ACM Sigmis Database: the database for advances in information systems 35, 1 (2004), 64–79.
- [12] Talha Burki. 2017. Health and rights challenges for China's LGBT community. The Lancet 389, 10076 (2017), 1286.
- [13] Nectar Gan Business and CNN Yong Xiong. [n.d.]. WeChat deletes dozens of university LGBT accounts in China. https://www.cnn.com/2021/07/07/business/china-lgbt-wechat-censorship-intl-hnk/index.html
- [14] Jin Cao and Lei Guo. 2016. Chinese "Tongzhi" community, civil society, and online activism. *Communication and the Public* 1, 4 (2016), 504–508.
- [15] Qiang Cao, Xiaowei Yang, Jieqi Yu, and Christopher Palow. 2014. Uncovering large groups of active malicious accounts in online social networks. In *Proceedings of the 2014 ACM SIGSAC Conference on Computer and Communications Security*. 477–488.
- [16] Matthew Carrasco and Andruid Kerne. 2018. Queer visibility: Supporting LGBT+ selective visibility on social media. In Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems. 1–12.
- [17] Michael Chao-Sheng Chang et al. 2011. Social Relationships Development In Virtual Community: A Life Cycle Approach.. In PACIS. Citeseer, 36.
- [18] Jean Chong. 2017. A brief perspective on the LBT movement in China. https://outrightinternational.org/content/brief-perspective-lbt-movement-china
- [19] Pizza Ka-Yee Chow and Sheung-Tak Cheng. 2010. Shame, internalized heterosexism, lesbian identity, and coming out to others: A comparative study of lesbians in mainland China and Hong Kong. Journal of counseling psychology 57, 1 (Jan 2010), 92–104. https://doi.org/10.1037/a0017930
- [20] Michael A Devito, Ashley Marie Walker, Jeremy Birnholtz, Kathryn Ringland, Kathryn Macapagal, Ashley Kraus, Sean Munson, Calvin Liang, and Herman Saksono. 2019. Social technologies for digital wellbeing among marginalized communities. In Conference Companion Publication of the 2019 on Computer Supported Cooperative Work and Social Computing. 449–454.
- [21] Michael Ann DeVito, Ashley Marie Walker, and Julia R Fernandez. 2021. Values (Mis) alignment: Exploring Tensions Between Platform and LGBTQ+ Community Design Values. Proceedings of the ACM on Human-Computer Interaction 5, CSCW1 (2021), 1–27.

- [22] Bryan Dosono and Bryan Semaan. 2019. Moderation practices as emotional labor in sustaining online communities: The case of AAPI identity work on Reddit. In *Proceedings of the 2019 CHI conference on human factors in computing systems*. 1–13.
- [23] Stefanie Duguay. 2019. "There's no one new around you": Queer women's experiences of scarcity in geospatial partner-seeking on Tinder. In *The Geographies of Digital Sexuality*. Springer, 93–114.
- [24] Stefanie Duguay, Jean Burgess, and Nicolas Suzor. 2020. Queer women's experiences of patchwork platform governance on Tinder, Instagram, and Vine. Convergence 26, 2 (2020), 237–252.
- [25] Brianna Dym, Jed R Brubaker, Casey Fiesler, and Bryan Semaan. 2019. "Coming Out Okay" Community Narratives for LGBTQ Identity Recovery Work. Proceedings of the ACM on Human-Computer Interaction 3, CSCW (2019), 1–28.
- [26] Hannah Ellis-Petersen. 2016. China bans depictions of gay people on television. The Guardian (Mar 2016). https://www.theguardian.com/tv-and-radio/2016/mar/04/china-bans-gay-people-television-clampdown-xi-jinping-censorship
- [27] Jesse Fox and Rachel Ralston. 2016. Queer identity online: Informal learning and teaching experiences of LGBTQ individuals on social media. *Computers in Human Behavior* 65 (2016), 635–642.
- [28] Jesse Fox and Katie M Warber. 2015. Queer identity management and political self-expression on social networking sites: A co-cultural approach to the spiral of silence. *Journal of Communication* 65, 1 (2015), 79–100.
- [29] Rik Glauert. 2019. Is China's Weibo cracking down on LGBTI content again? https://www.gaystarnews.com/article/is-chinas-weibo-cracking-down-on-lgbti-content-again/
- [30] James Griffiths. 2019. Can you be gay online in China? Social media companies aren't sure | CNN Business. https://www.cnn.com/2019/04/17/tech/weibo-china-censorship-lgbt-intl/index.html
- [31] Oliver L Haimson, Justin Buss, Zu Weinger, Denny L Starks, Dykee Gorrell, and Briar Sweetbriar Baron. 2020. Trans Time: Safety, Privacy, and Content Warnings on a Transgender-Specific Social Media Site. *Proceedings of the ACM on Human-Computer Interaction* 4, CSCW2 (2020), 1–27.
- [32] Oliver L Haimson, Avery Dame-Griff, Elias Capello, and Zahari Richter. 2021. Tumblr was a trans technology: the meaning, importance, history, and future of trans technologies. *Feminist Media Studies* 21, 3 (2021), 345–361.
- [33] Xi Han, Wenting Han, Jiabin Qu, Bei Li, and Qinghua Zhu. 2019. What happens online stays online?—Social media dependency, online support behavior and offline effects for LGBT. Computers in Human Behavior 93 (2019), 91–98.
- [34] Benjamin Hanckel, Son Vivienne, Paul Byron, Brady Robards, and Brendan Churchill. 2019. 'That's not necessarily for them': LGBTIQ+ young people, social media platform affordances and identity curation. *Media, Culture & Society* 41, 8 (2019), 1261–1278.
- [35] Blake W Hawkins and Oliver Haimson. 2018. Building an online community of care: Tumblr use by transgender individuals. In *Proceedings of the 4th Conference on Gender & IT*. 75–77.
- [36] Terri He. 2007. Cyberqueers in Taiwan: Locating histories of the margins. *Journal of International Women's Studies* 8, 2 (2007), 55–73.
- [37] Javier C. Hernández and Zoe Mou. 2018. 'I Am Gay, Not a Pervert': Furor in China as Sina Weibo Bans Gay Content. The New York Times (Apr 2018). https://www.nytimes.com/2018/04/15/world/asia/china-gay-ban-sina-weibo-.html
- [38] Alexa Hiebert and Kathy Kortes-Miller. 2021. Finding home in online community: exploring TikTok as a support for gender and sexual minority youth throughout COVID-19. *Journal of LGBT Youth* (2021), 1–18.
- [39] Timothy Hildebrandt. 2012. Development and division: The effect of transnational linkages and local politics on LGBT activism in China. *Journal of Contemporary China* 21, 77 (2012), 845–862.
- [40] Chaya Hiruncharoenvate, Wesley Smith, W Keith Edwards, and Eric Gilbert. 2016. Popup Networks: Creating Decentralized Social Media on Top of Commodity Wireless Routers. In Proceedings of the 19th International Conference on Supporting Group Work. 149–158.
- [41] Michael A Hogg and Dominic Abrams. 1988. Social identifications: A social psychology of intergroup relations and group processes. Taylor & Frances/Routledge.
- [42] Community Marketing Insights. 2014. The LGBT Market in China: Exploring the Opportunities. https://communitymarketinginc.com/wp-content/uploads/2016/01/CMI_Presentation_LGBT_China_07Aug2014.pdf
- [43] Alicia Iriberri and Gondy Leroy. 2009. A life-cycle perspective on online community success. ACM Computing Surveys (CSUR) 41, 2 (2009), 1–29.
- [44] Yuqiao Ji. 2019. Shutdown of online lesbian community on China's twitter-like Sina Weibo sparks protest. https://www.globaltimes.cn/page/201904/1145991.shtml
- [45] Nadia Karizat, Dan Delmonaco, Motahhare Eslami, and Nazanin Andalibi. 2021. Algorithmic folk theories and identity: How TikTok users co-produce Knowledge of identity and engage in algorithmic resistance. Proceedings of the ACM on Human-Computer Interaction 5, CSCW2 (2021), 1–44.
- [46] Dhruv Khullar and M.D. 2018. Stigma Against Gay People Can Be Deadly. The New York Times (Oct 2018). https://www.nytimes.com/2018/10/09/well/live/gay-lesbian-lgbt-health-stigma-laws.html
- [47] Yubo Kou, Yong Ming Kow, and Xinning Gui. 2017. Resisting the censorship infrastructure in China. (2017).
- [48] Robert E Kraut and Paul Resnick. 2012. Building successful online communities: Evidence-based social design. Mit Press.

- [49] Chow S Lam, Hector Tsang, Fong Chan, and Patrick W Corrigan. 2006. Chinese and American perspectives on stigma. *Rehabilitation Education* 20, 4 (2006), 269–279.
- [50] Erick Laurent. 2005. Sexuality and human rights: an Asian perspective. Journal of Homosexuality 48, 3-4 (2005), 163–225.
- [51] Alex Leavitt and John J Robinson. 2017. The role of information visibility in network gatekeeping: Information aggregation on Reddit during crisis events. In *Proceedings of the 2017 ACM conference on computer supported cooperative work and social computing.* 1246–1261.
- [52] Ming Li. 2017. Social Networks and Lesbians' Mental Health: A Study of a Lesbian Community in Northeast China. The Chinese University of Hong Kong (Hong Kong).
- [53] Ruohan Li. 2018. The secret of internet celebrities: A qualitative study of online opinion leaders on Weibo. (2018).
- [54] Leanna Lucero. 2017. Safe spaces in online places: Social media and LGBTQ youth. Multicultural Education Review 9, 2 (2017), 117–128.
- [55] Toby Miles-Johnson and Yurong Wang. 2018. 'Hidden identities': perceptions of sexual identity in Beijing. *The British journal of sociology* 69, 2 (2018), 323–351.
- [56] Geeta Moni. 2021. Discrimination as WeChat deletes LGBTQIA+ accounts in China. https://www.hhrjournal.org/2021/ 08/discrimination-as-wechat-deletes-lgbtqia-accounts-in-china/
- [57] Fayika Farhat Nova, Michael Ann DeVito, Pratyasha Saha, Kazi Shohanur Rashid, Shashwata Roy Turzo, Sadia Afrin, and Shion Guha. 2021. "Facebook Promotes More Harassment" Social Media Ecosystem, Skill and Marginalized Hijra Identity in Bangladesh. Proceedings of the ACM on Human-Computer Interaction 5, CSCW1 (2021), 1–35.
- [58] Lorelli S Nowell, Jill M Norris, Deborah E White, and Nancy J Moules. 2017. Thematic analysis: Striving to meet the trustworthiness criteria. *International journal of qualitative methods* 16, 1 (2017), 1609406917733847.
- [59] Office of the central Cyberspace Affairs Commission et al. 2021. The 46th China statistical report on internet development. 2020.
- [60] United Nations Development Programme. 2016. Being LGBTI in China: A National Survey on Social Attitudes Towards Sexual Orientation, Gender Identity and Gender Expression.
- [61] ZhengJia Ren, Catherine Q Howe, and Wei Zhang. 2019. Maintaining "mianzi" and "lizi": Understanding the reasons for formality marriages between gay men and lesbians in China. *Transcultural psychiatry* 56, 1 (2019), 213–232.
- [62] Esther Rothblum. 2010. Where is the 'women's community?'Voices of lesbian, bisexual, and queer women and heterosexual sisters. Feminism & Psychology 20, 4 (2010), 454–472.
- [63] Koustuv Saha, Sang Chan Kim, Manikanta D Reddy, Albert J Carter, Eva Sharma, Oliver L Haimson, and Munmun De Choudhury. 2019. The language of LGBTQ+ minority stress experiences on social media. *Proceedings of the ACM on human-computer interaction* 3, CSCW (2019), 1–22.
- [64] Pedro Sanches, Vasiliki Tsaknaki, Asreen Rostami, and Barry Brown. 2020. Under Surveillance: Technology Practices of those Monitored by the State. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems. 1–13
- [65] Morgan Klaus Scheuerman, Stacy M Branham, and Foad Hamidi. 2018. Safe spaces and safe places: Unpacking technology-mediated experiences of safety and harm with transgender people. Proceedings of the ACM on Human-Computer Interaction 2, CSCW (2018), 1–27.
- [66] Gareth Shaw and Xiaoling Zhang. 2018. Cyberspace and gay rights in a digital China: Queer documentary filmmaking under state censorship. *China Information* 32, 2 (2018), 270–292.
- [67] Irina Shklovski and Nalini Kotamraju. 2011. Online contribution practices in countries that engage in internet blocking and censorship. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems. 1109–1118.
- [68] Ellen Simpson and Bryan Semaan. 2021. For You, or For" You"? Everyday LGBTQ+ Encounters with TikTok. *Proceedings of the ACM on human-computer interaction* 4, CSCW3 (2021), 1–34.
- [69] Susan Stryker. 2008. Transgender history, homonormativity, and disciplinarity. Radical History Review 2008, 100 (2008), 145–157.
- [70] Jonathan Sullivan. 2012. A tale of two microblogs in China. Media, culture & society 34, 6 (2012), 773–783.
- [71] Yuge Sun. 2021. A Friendly Zone or Malicious One? In 2021 International Conference on Public Relations and Social Sciences (ICPRSS 2021). Atlantis Press, 857–861.
- [72] Yu Sun and Vincent Guangsheng Huang. 2021. Embedded data activism: the institutionalization of a grassroots environmental data initiative in China. *Chinese Journal of Communication* (2021), 1–23.
- [73] Harry C Triandis. 2018. Individualism and collectivism. Routledge.
- [74] Ashley Marie Walker and Michael A DeVito. 2020. "'More gay'fits in better": Intracommunity Power Dynamics and Harms in Online LGBTQ+ Spaces. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. 1–15.
- [75] Shuaishuai Wang et al. 2019. Living with censorship: The political economy and cultural politics of Chinese gay dating apps. Ph.D. Dissertation. Universiteit van Amsterdam.

- [76] Yuanyuan Wang, Zhishan Hu, Ke Peng, Joanne Rechdan, Yuan Yang, Lijuan Wu, Ying Xin, Jiahui Lin, Zhizhou Duan, Xuequan Zhu, et al. 2020. Mapping out a spectrum of the Chinese public's discrimination toward the LGBT community: results from a national survey. *BMC Public Health* 20 (2020), 1–10.
- [77] Yuanyuan Wang, Zhishan Hu, Ke Peng, Ying Xin, Yuan Yang, Jack Drescher, and Runsen Chen. 2019. Discrimination against LGBT populations in China. *The Lancet Public Health* 4, 9 (2019), e440–e441.
- [78] Phillip Wegner. 2002. Imaginary Communities. University of California Press.
- [79] Donghee Yvette Wohn. 2019. Volunteer moderators in twitch micro communities: How they get involved, the roles they play, and the emotional labor they experience. In *Proceedings of the 2019 CHI conference on human factors in computing systems*. 1–13.
- [80] William Yang. 2021. China feminists face clampdown, closure of online accounts. https://www.dw.com/en/china-feminism-free-speech/a-57277438
- [81] Yifan Yang. 2019. Bargaining with the State: The empowerment of Chinese sexual minorities/LGBT in the social media era. *Journal of Contemporary China* 28, 118 (2019), 662–677.
- [82] Daphna Yeshua-Katz. 2015. Online stigma resistance in the pro-ana community. *Qualitative health research* 25, 10 (2015), 1347–1358.
- [83] Fouzia Younas, Mustafa Naseem, and Maryam Mustafa. 2020. Patriarchy and social media: Women only facebook groups as safe spaces for support seeking in Pakistan. In *Proceedings of the 2020 International Conference on Information and Communication Technologies and Development*. 1–11.
- [84] Quan Zheng, Ying Guo, Zhen Wang, Frank Andrasik, Ziyi Kuang, Junyi Li, Sheng Xu, and Xiangen Hu. 2022. Exploring Weibo users' attitudes toward lesbians and gays in Mainland China: A natural language processing and machine learning approach. *Computers in Human Behavior* 127 (2022), 107021.
- [85] Huiquan Zhou and Quanxiao Pan. 2016. Information, community, and action on Sina-Weibo: How Chinese philanthropic NGOs use social media. Voluntas: International journal of voluntary and nonprofit organizations 27, 5 (2016), 2433–2457.

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