

How Community Size and Openness Affect Member Engagement in Online Fan Communities: A Survey Study of the TFBOYS Fans on Weibo

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June 10, 2023

Abstract

In this era of the internet, countless people participate in fan communities on online social platforms to pursue their interests. Despite all consisting of people with genuine passions, these communities present a variety of levels and types of member engagement: while some attract millions if not billions of active users daily, others barely show any signs of activity. This research aims to explore the reasons behind this difference. While most existing work primarily focuses on the impact of either the size or the openness of an online community on its members' engagement, this proposed work plans to investigate the interaction between size and openness. In particular, before starting this research, I reviewed a series of previous works on community engagement and developed a series of hypotheses on how the interaction between community size and openness may affect members' sense of belonging in online fan communities. I then conducted a survey study to test these hypotheses. Specifically, the survey investigated the members' sense of belonging in 4 distinct communities whose features represent the interaction between community size and openness: a large and open community, a large and closed community, a small and open community, and a small and closed community. The survey was distributed among TFBoys fans on Sina Weibo from April 21 to June 9. The findings for the 24 Likert scale questions indicate that fans in larger/closed experience a stronger sense of belonging. Additionally, the engagement levels, particularly in terms of posting and messaging activities, are higher in large/open communities. This research produces recommendations for real-world online social platforms on how to design features to better engage with fan communities, as well as contribute scholarly knowledge to the broader research communities of Computer-Mediated Communication and Social Media Studies.

Introduction

As a long-time active user of Weibo—a large online platform for fan activities, I found participating in online fan communities an important part of my life since an early teen.

Especially during the COVID-19 global pandemic, despite being physically isolated, I was able to make many new friends and connect with the world in online fan communities. Indeed, more than 97% of teens in today's world are users of social media platforms (Vogels, E. A., Massarat, N., Gelles-Watnick, R. 2022). While research interviews according to Waugh, A. (2019) show 80% of teen participants struggle with mental health issues during the pandemic, online communities provide a pathway to ease this issue as it helps teens make connections, find emotional support, and discover interests.

More generally, online fan communities have long been studied for their participatory culture. Online communities allow fans to connect over shared interests, seek emotional support, and express themselves through creativity (Henry, J 2006). In those communities, the boundary between the production and consumption of media has been blurred—everyone can participate in the discussion and content creation. However, not all communities are equal in terms of member engagement. Based on my observation of Weibo, for example, Jackson Yee who is one of the team members in TFBOYS has his own Weibo Chaohua[\[1\]](#). This is an open online discussion space with a high contribution rate and broad, friendly discussion from its members. More generally speaking, research has found that people tend to engage in different ways and talk about different things in different communities that are large or small, closed or open (Hwang S & Foote J. D., 2021).

Kraut and Resnick (2012)'s research shows members' sense of belonging is an important factor that contributes to their engagement in communities (p. 63). Factors of community size and openness can affect the sense of belonging. A lot of research has studied the influence of either community size or openness on the sense of belonging (TeBlunthuis, et al., 2022; Butler, et al., 2014; Hwang, et al. 2021). This leads to the questions: How and why do people engage differently in online fan communities of different sizes and different levels of openness? How does the interplay between community size and openness impact a user's sense of belonging? In this thesis, I study how the interplay between community size and openness on members' sense of belonging in online fan communities.

Related work

Member engagement and **size and openness of the online community**

When considering factors that impact member engagement in an online community, most researchers and scholars focus on either the size or the openness of a community. For example, classical works on online communities, such as Kraut and Resnick (2012), claim that people are more willing to contribute to an online group when the group is *small* rather than *large*. People like to contribute more because their opinions and contributions are likely to influence the small community. However, it is challenging to maintain engagement (p. 63-65). Many become lurkers after the first few interactions, and some face hostility. What factors contribute to this? However, it is not clear if this applies to some large, open platforms designed for fans, where members gather together because of shared interest in a celebrity or topic. In those spaces, members may have different specific opinions about certain aspects of the topic and are not necessarily bonded with each other. Similarly, Kim M and Kim H (2017) state that fan activities are more likely to thrive in a closed, exclusive space: “Unlike social media, which is an open space for everyone including fans and anti-fans, the online fan community is a closed space only for avid fans” (p. 234).

According to Sundet and Petersen (2021), the affordance of social media groups on platforms such as Facebook may in some ways offer a "safe space" to engage intensely in participatory practices, but it also leaves the individual vulnerable to have those practices taken out of context and shared elsewhere online” (p. 7). They interviewed the users posted on a closed Facebook fan group. They found out that the reason fans want to engage in the closed group is that they feel it is a safe space, but at the same time, the group can create hostility by members taking each other’s words out of context.

Research has only focused on the relationship between the closeness of the online group chat and user behavior patterns. Further research is needed to understand behavior patterns in online communities that vary in size and openness. In particular, we need to understand the interaction between the size of the group and the openness of the group. Prior work has focused on either size or openness, rather than their interaction.

A specific dimension of member engagement: the sense of belonging

The specific aspect of member engagement in online communities that I focused on is members' sense of belonging. According to the research performed by Lampe, Wash, Velasquez, and Ozkata (2010), the sense of belonging to a platform is important to all types of users (p. 1927). Therefore, when we study the reasons why people continue to stay in the communities, we can focus on the sense of belonging that led them to participate. In a large community, there might be some different sense of belonging that bonds the users together, so we can research how the sense of belonging affects people's contributions. For example, people might have a sense of belonging due to their feelings about a pop singer, or a celebrity couple, or they may have a bond with other users in large communities. Those senses of belonging are different types that let the users participate in and contribute to the communities. According to prior scholarly work, people present different levels of engagement in an online community based on their motivations and their personality traits of participation (Cullen, R., & Morse, S, 2011, p. 5). For example, people with low neurotic and extrovert qualities tend to engage by a desire to give their opinions and are generally more open to sharing information online, which is contrary to the conduct seen in people with high neurotic traits. Motivation can be divided into two types which are intrinsic and extrinsic motivation. Extrinsic motivation means coming from outside, just like earning money to participate in the community. Intrinsic motivation means coming from inside of the person, such as participating and being motivated by their interest. According to Ridings C and Gefen D (2004), "In all the community types, information exchange was the most popular reason for joining. Thereafter, however, the reason varied depending on community type" (p. 10.1). We can extend the idea of having the varying reasons for joining a face to face communities to the Fans online communities. In summary of the previous study, people on a large open platform may gather together because of common interests which gives them a sense of belonging, but their specific motivation for participation in the particular communities can vary.

Hypotheses

Through this proposed work, I want to answer this question: How does fans' sense of belonging differ across a large & open community, a large & closed community, a small & open community, and a small & closed community? To answer this question, I first construct four types of communities that represent the interaction between community size and openness (Table 1).

<u>Size/Openness</u>	<u>OPEN</u>	<u>CLOSED</u>
<u>SMALL</u>	Small open space	Small closed space
<u>LARGE</u>	Large open space	Large closed space

Table 1: **Four types of online communities regarding the interaction between size and openness.**

Based on my literature review, I present the following specific research questions and hypotheses:

- How is members' **sense of belonging** affected by the size and openness of a community? (i.e., Does either closeness or group size affect the user's sense of belonging in online communities, or do both factors affect the users?). I hypothesize that:
 - Fans in smaller spaces will have a higher sense of belonging.
 - Fans in closed spaces will have a higher sense of belonging.

Empirical Setting: the TFBOYS fan communities on Sina Weibo

TFBOYS is a popular boy band and idol group from China, which has also been called Fighting Boys. Chen (2021) claimed that the three team members, “Karry Wang, Roy Wang, and Jackson Yee — make up one of the hottest bands in China: TFBoys” (p. 1). The popularity of TFBoys has been acknowledged in movies, theater, and reality TV. The Guinness World Record for the most-watched paid concert was broken by TFBoys. Since the band's debut album was published in 2013, it has ignited an unquenchable fire among almost all age groups in China. (p.1).

I studied TFBOYS fan communities across a range of Chinese social media platforms, including Sina Weibo, Douyin, and WeChat. Sina Weibo (shortened as “Weibo”) is one of the largest social media platforms in China, which is a microblogging website and it is similar to Twitter. Chaohua has divided the users on Weibo with many different tags for getting into the Fans’ online communities. According to Siyu Li (2021), “Weibo is the market leader with approximately 50% of the market share. Around 80% of the users on Sina Weibo are young people” (p. 1274). In particular, I studied a section of Weibo called “Chaohua”, which is a sign of a popular trend and is an important platform for every celebrity to expand their reputation. The users at Chaohua can receive information, news, or photographs from other fans’ posts. Douyin is a popular social media platform that allows young people to connect and enables fans to communicate with each other. It is similar to TikTok, but Douyin is the original version used exclusively in China. According to Gupta et al. (2021), TikTok users are predominantly under 35 years old, accounting for approximately 81.68% of the user base (Nadeem, A., & Ahmed, S., 2022). In addition, WeChat is an online platform that facilitates communication through messaging and enables the creation of various types of group chats. With over 1.13 billion monthly global active users, WeChat is not only an instant messaging platform but also serves as a means to connect users from all around the world (Tian, Y., Zhang, S., Huang, F., & Ma, L., 2021).

On these platforms, I specifically identified the following 4 example communities in particular to represent the four types of communities shown in Table 1:

- Large/open: TFBOYS's Weibo Chaohua.
- Large/close: TFBOYS Fan Dancing Group Chat.
- Small/open: TFBOYS 10 yrs anniversary Weibo Chaohua
- Small/close: different TFBOYS regional Fans' group chat

Below is the description of these 4 example communities:



Figure 1: The **large/open** community that I selected for this study is *TFBOYS* Weibo Chaohua. The Chaohua community forms around a hashtag and it welcomes all the users to come and share their opinions on this open space. It contains about 4.5 million users and welcomes everyone to join and post



Figure 2: The **small/open** community for this study is the *TFBOYS 10 yrs anniversary* Weibo Chaohua. It contains 2,000 users and welcomes everyone to join and post



Figure 3: The **large/closed** community for this study is the TFBOYS Fan Dancing Group Chat. It contains 500 users and requires membership to join. For this group chat, the users need to fulfill certain requirements of being a fan of TFboys to join the group chat. Therefore, these online communities are considered closed spaces.

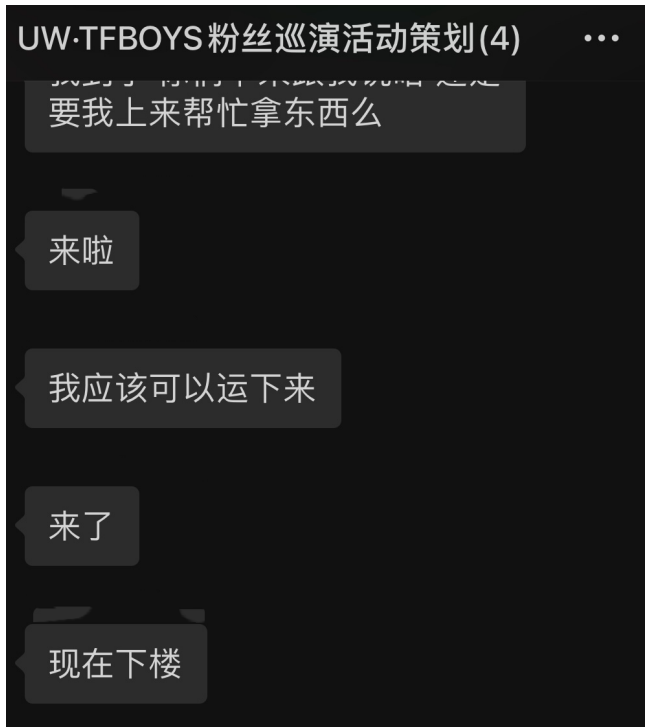


Figure 4: The **small/closed** community in this study is the regional Fans' group chat. It contains fewer than 20 users and requires membership to join. The number of users for the group chat is much smaller than the large group chat and it still has some requirements before joining the spaces.

Method

I conducted a survey to study members' sense of belonging affected by the size and openness of a community.

Survey Design

I used an existing survey instrument to measure the metrics of a sense of belonging. The survey instrument used in this study consists of 24 Likert scale questions adapted from Derlath, J.

(2016). I translated this list of 24 Likert scale questions into Chinese. The full survey questions including the 24 Likert scale questions are in Appendix 1.

The survey process began with the study information sheet, which provided participants with an overview of the research study and ensured their informed consent. Participants then completed a screening form to confirm their eligibility, followed by demographic questions that collected relevant background information. This comprehensive approach to data collection aims to provide valuable insights into the metrics of a sense of belonging among the survey participants. The complete survey design, starting with the study information sheet and screening form, followed by the demographic questions and main questions, is described as follows:

First, there is a study information sheet served as an introductory page displayed at the beginning of the survey. Its purpose was to provide participants with a clear understanding of the research study before they proceeded to complete the survey. The information sheet included details about the objectives of the study, the nature of the survey questions, and any potential risks or benefits associated with participation. It also informed participants about the confidentiality of their responses and provided contact information for the research team in case they had any questions or concerns.

In addition, upon agreeing to participate in the study, participants were directed to complete a screening form. The screening form contained two primary questions: 1) whether the participant was over 18 years old, 2) whether they were proficient in reading and writing in English or Chinese, and 3) Have you ever used the specific online communities? These screening questions helped ensure that the study included participants who met the specified criteria, were a member of the online groups, were of age, and had the English or Chinese proficiency to understand and respond to the survey questions effectively.

Following the screening process, participants were presented with a series of demographic questions. These questions aimed to gather background information about the participants and their experiences related to the research topic. The demographic questions included in the survey were as follows:

1. Age: Participants were asked to provide their ages in years. This information was collected to understand the age distribution of the participants and its potential influence on the sense of belonging metrics.
2. Gender: Participants were asked to indicate their gender. This question aimed to capture the gender distribution within the sample and explore any potential gender-related differences in the sense of belonging metrics.
3. Frequency of Community Participation: Participants were asked to indicate the frequency at which they participated in online discussions related to the research topic. Response options ranged from "Never", "Less than weekly", "Weekly", and "Daily" on a multiple choice question. This question aimed to gauge the extent of participants' engagement in the online community.
4. Duration of Community Participation: Participants were asked to specify the duration of their community participation in terms of years. This question aimed to assess the length of time participants had been involved in the online community and explore any potential correlations with their sense of belonging metrics.

Procedures

The procedures of this study involved distributing the surveys to four different online communities simultaneously and employing various strategies to incentivize participation. Additionally, it is important to highlight that participation in the survey study was voluntary, and participants had the freedom to withdraw from the study at any point without facing any negative consequences.

To ensure a diverse sample, the same set of survey questions was distributed to four different online communities simultaneously. The surveys were made accessible through community

public channels and were also sent individually to community members via directed messages. Each of the four communities received an identical survey with a unique URL, enabling easy identification of the community from which participants originated.

To encourage participation and motivate users to complete the surveys, an incentive system was implemented. In this study, TFBOYS peripheral products, specifically night lights and acrylic stand figure models, were offered as incentive gifts. The incentive distribution followed a predetermined scheme based on the survey completion count. When the total number of completed surveys reached 60, the incentive distribution process began. Specifically, the 20th, 30th, 40th, 50th, and 60th users who filled out the survey were eligible to receive the TFBOYS peripheral products as a gift.

Participation in the survey study was entirely voluntary. Participants were informed that they had the right to decline participation or leave the survey at any point. For instance, participants had the option to decline to answer specific questions or exit the survey before completion. It was emphasized that withdrawing from the study would not result in any penalty or loss of benefits to which they were entitled. To protect participant confidentiality, several measures were implemented. Only usernames were collected as indirect identifiers, and no directly identifiable information, such as real names, was gathered. In the analysis process, participant usernames were mapped to unique participant IDs (e.g., P1, P2, P3).

Participants

Data collection for this study commenced on April 21st and concluded on June 9, 2023. This two-month period allowed for a sufficient time frame to gather responses from participants across the selected online communities. There were a total of 150 participants taking part in the survey, with a gender distribution of 149 females and 1 male. This participant sample size provides a substantial base for the analysis and interpretation of the data.

The participants were distributed across different types of online communities based on their size and openness. Out of the 150 participants, 64 belonged to large/closed communities, 57 were

from large/open communities, 17 came from small/open communities, and the remaining 12 were affiliated with small/closed communities. This distribution allowed for the examination of various types of online communities and their impact on the research outcomes.

Analysis

In the analysis phase of the research study, a power analysis was utilized to determine the optimal number of survey responses required for each condition. The calculated target was to obtain 64 participants from each online community, as determined by the power analysis calculator. Data wrangling and virtual analysis were conducted using Microsoft Excel.

For the 24 Likert scale questions, Microsoft Excel was employed to generate bar charts representing the responses from the four online communities. The bar charts use percentages as a standardized unit to illustrate the differences in responses across the online groups.

Findings

One aspect examined in the survey was the frequency of participants' engagement within the online communities in terms of posting or sending messages. Figure 5 illustrates the results obtained from this question. The bar chart reveals that participants in large/open online communities exhibited the highest percentage rate of daily posting or messaging compared to the other communities. Also, the survey inquired about participants' frequency of browsing posts and messages in the four online communities. Figure 6 presents the findings related to this question. Notably, it demonstrates that the large/opened online communities maintained the highest percentage rate of browsing posts and messages compared to the other community types. These findings suggest that large/open online communities have a higher participation rate compared to other community types. These insights provide valuable information for understanding the sense of belonging in online communities.

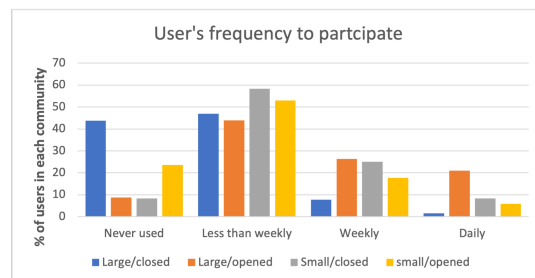


Figure 5: a bar chart showing the user's frequency of sending a post/ messages in the 4 online communities

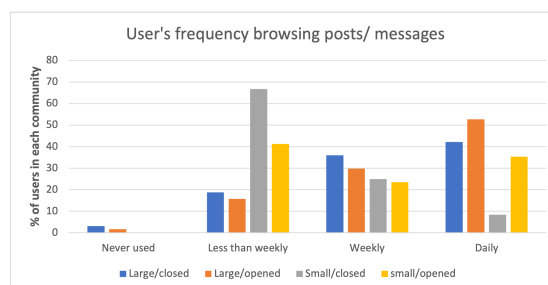


Figure 6: a bar chart showing the user's frequency of browsing posts/ messages in the 4 online communities.

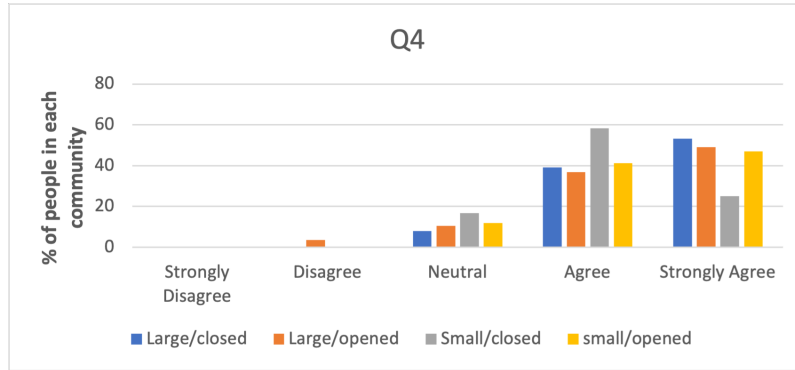


Figure 7: a bar chart showing the percentage of people in each community response to the Q4: Being a member of this community makes me feel good.

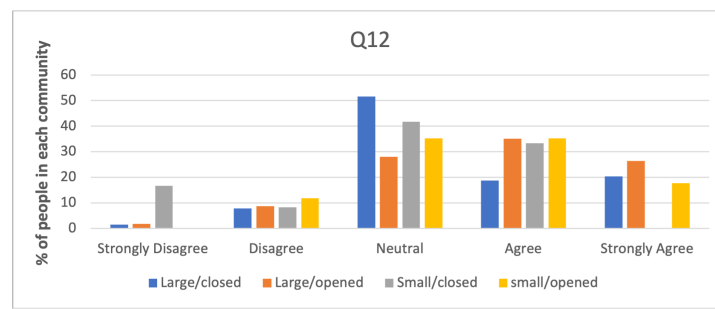


Figure 8: a bar chart showing the percentage of people in each community response to the Q12: Being a member of this community is a part of my identity.

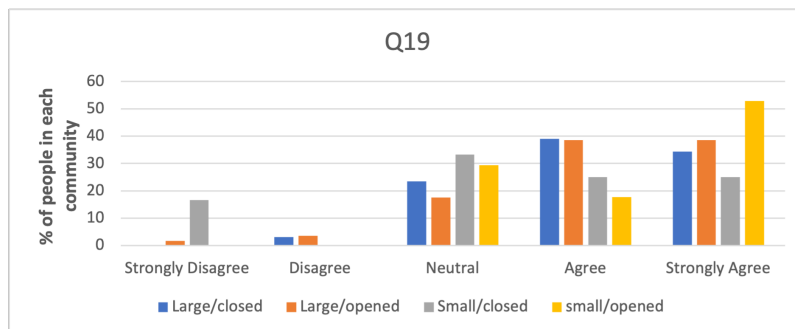


Figure 9: a bar chart showing the percentage of people in each community response to the Q19: It is very important to me to be a part of this community.

The 24 Likert scale questions Derlath, J. (2016) aimed to measure participants' sense of belonging within the online communities. Each question was visualized using bar charts to analyze the responses across the four community types. Here are some examples of the findings.

The full findings of the 24 questions are in the Appendix 2. Figure 7 represents the responses to question 4, which explores the statement "Being a member of this community makes me feel good." Contrary to our hypothesis, a higher percentage of members from large communities, including both open and closed communities, strongly agreed with the statement. Additionally, Figure 8 displays the responses to question 12, which examines the statement "Being a member of this community is a part of my identity." The findings indicate that members from large/open communities agreed with this statement to a greater extent, contradicting both small and closed communities.

Lastly, Figure 9 presents the responses to question 19, which focuses on the statement "It is very important to me to be a part of this community." Most of the members from small/open communities strongly agree with this statement. Compared to large communities, more members of small communities strongly agree. This supports our hypothesis. However, both small/closed and large/closed communities have some amount of people who disagree with the program. Within both closed communities, people from open communities strongly agree with the statement. This contradicts our hypothesis.

After analyzing the 24 questions and identifying the highest number of responses in the "strongly agree" category, the data reveals that large/closed communities received the highest response in 11 questions, followed by small/open communities with 10 questions, large/open communities with 2 questions, and small/closed communities with 1 question. These findings shed light on the variations in the sense of belonging among different types of online communities.

Overall, the findings emphasize that engagement levels tend to be higher in large/open communities, while the sense of belonging differs across the community types, sometimes contradicting our initial hypotheses. Specifically, large/closed communities exhibit a higher

sense of belonging, as indicated by the responses in the "strongly agree" category for all 24 Likert scale questions.

Discussion

The findings for the 24 Likert scale questions indicate that fans in larger/closed experience a stronger sense of belonging. Additionally, the engagement levels, particularly in terms of posting and messaging activities, are higher in large/open communities. The vibrant and active discussions within these communities, involving a larger number of members, likely contribute to the formation of stronger bonds among the participants. This sense of belonging is further supported by the higher engagement levels observed in terms of posting and messaging activities. The open nature of these communities facilitates a greater exchange of ideas and interactions, fostering a more inclusive and engaging environment.

The findings of this study, based on the analysis of the 24 Likert scale questions, provide valuable insights into the sense of belonging within different types of online communities. One notable finding is that fans in larger/closed communities reported a stronger sense of belonging compared to other community types. This indicates that the size and openness of the community contribute to the development of a deep connection among its members. Additionally, the engagement levels, particularly in posting and messaging activities, were higher in large/open communities. These communities foster vibrant and active discussions among a larger number of members, which likely enhances the sense of belonging and strengthens the bonds among participants. The higher engagement levels observed in these communities reflect the enthusiasm and active participation of their members.

The open nature of large/open communities plays a crucial role in facilitating a greater exchange of ideas and interactions. This fosters a more inclusive and engaging environment for the community members. The free flow of information and the opportunity to connect with a diverse

range of individuals contribute to the overall sense of belonging and satisfaction within these communities.

It is important to note that these findings challenge some initial hypotheses regarding the relationship between community size and openness to the sense of belonging. While it was initially expected that small and closed communities would experience a higher sense of belonging, the study found that the exclusivity of the community played a significant role in fostering a stronger sense of belonging among its members. This highlights the complexity of the factors influencing the sense of belonging in online communities.

One limitation of this study is the self-selection of participants, allowing anyone to take the survey. This approach may result in a potential bias, as it does not capture the opinions of all individuals within the online communities. The findings may not fully represent the diversity of perspectives within these communities. Additionally, the unequal distribution of responses across the four online communities poses a limitation. Some communities have a larger number of responses, while others have fewer. This imbalance affects the statistical power of the analysis and may introduce limitations in terms of generalizability. Future research should aim for a more balanced response distribution to enhance the validity of the findings.

The findings of this research paper can have practical implications for online platforms in regulating different types of online communities based on their characteristics, such as size and openness. Understanding the dynamics of different fan communities can inform platform management strategies aimed at fostering engagement and creating a sense of belonging. Furthermore, identifying distinct fan communities can aid in targeting specific audiences for economic purposes, benefiting fan economies and marketing strategies.

To further develop this research, the next step involves writing a manuscript and disseminating the findings to the research communities specializing in social computing and computer-mediated communication (CMC). Sharing the research outcomes will contribute to scholarly dialogue and encourage further investigation into the subject matter. Future research endeavors should address the limitations of self-selection and response distribution, as well as explore the

possibilities of incorporating objective data analysis to provide a more robust understanding of online community dynamics.

Reflection

The findings of this survey research hold significant implications for the TFBOYS online community and can provide valuable insights to community leaders on how to foster a stronger sense of belonging and engagement among its members. This research has not only contributed to the understanding of online communities but has also allowed me to develop my research skills and delve into the field of research study. The collaboration with over 140 fans, which are resulting in 140 valid participants for this survey study. Although some fans filled out the survey but did not meet the screening criteria, their contributions are still acknowledged and appreciated. This collaborative effort has allowed us to come together and create lasting memories of our shared youth. It is a testament to the unity and camaraderie within the TFBOYS community.

As we celebrate the 10-year milestone, it is my hope that each and every individual can shine brightly in their respective fields and keep the warmth of passion and connection alive in their hearts. This research study serves as a tribute to the profound impact that TFBOYS has had on our lives and signifies the bond that unites us as fans. It is a meaningful endeavor to commemorate the 10-year anniversary of TFBOYS, a journey that has coincided with our youth and the vibrant spring of our lives.

Looking ahead, there is still much to explore and understand about online communities and the factors that contribute to a sense of belonging and engagement. Further research and investigation can build upon these findings and delve deeper into the intricacies of online fan communities. By continuously learning and growing, we can strive to create even more fulfilling and supportive environments for fans to connect and thrive.

All in all, this research project has not only provided insights into the TFBOYS online community but has also been a personal journey of growth and exploration. I am grateful for the opportunity with Professor Benjamin Mako Hill and my mentor Regina Chen to contribute to this field of study and to collaborate with fellow fans in creating this survey study. May the spirit of unity and passion continue to guide us as we celebrate TFBOYS and cherish the memories of our youth.

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Appendix

Appendix 1: Survey question

<https://docs.google.com/document/d/1jAjbATI8VXvkeQrqYOoCNLoosnF21PG8bihD3tGutdE/edit>

Basic Information

What is your username on Weibo? (we will use this information to ensure not collect repetition data):

1. What is your age?
 - [short answer]
2. What is your gender?
 - [multiple choice]
3. How often do you use Weibo?
 - a. Never used
 - b. Less than weekly
 - c. Weekly
 - d. Daily
4. How many years of experience do you have on Weibo?
 - a. No experience
 - b. 0-1 years
 - c. 1-3 years
 - d. 3-5 years
 - e. More than 5 years
5. How often do you participate in [COMMUNITY NAME]?

- a. Never used
 - b. Less than weekly
 - c. Weekly
 - d. Daily
6. How many years of experience do you have participating in [COMMUNITY NAME]?
- a. No experience
 - b. 0-1 years
 - c. 1-3 years
 - d. 3-5 years
 - e. More than 5 years

Rating your experience in [community name]

Please rate your agreement to the following question on a scale of 1 to 5 (1=Strongly Disagree, 2= Disagree, 3= neither agree nor disagree, 4 = Agree, 5= Strongly Agree)

1. I get my important needs of mine met because I am part of this community.
2. Community members and I value the same things.
3. This community has been successful in getting the needs of its members met.
4. Being a member of this community makes me feel good.
5. When I have a problem, I can talk about it with members of this community.
6. People in this community have similar needs, priorities, and goals.
7. I can trust people in this community.
8. I can recognize most of the members of this community.

9. Most community members know me.
10. This community has symbols and expressions of membership such as clothes, signs, art, architecture, logos, landmarks, and flags that people can recognize.
11. I put a lot of time and effort into being part of this community.
12. Being a member of this community is a part of my identity.
14. This community can influence other communities.
15. I care about what other community members think of me.
16. I have influence over what this community is like.
17. If there is a problem in this community, members can get it solved.
18. This community has good leaders.
19. It is very important to me to be a part of this community.
20. I am with other community members a lot and enjoy being with them.
21. I expect to be a part of this community for a long time.
22. Members of this community have shared important events together, such as holidays, celebrations, or disasters.
23. I feel hopeful about the future of this community.

24. Members of this community care about each other.

调查问卷

基本信息：

1. 请输入您的微博用户名：（您的微博用户名将确保我们不会收集重复数据）：

2. 请输入你的年龄：

[简短回答]

3. 请选择您的性别：

[多选题]

4. 请选择你的微博的使用频率：

从未使用

少于每周一次

每周一次

每天

5. 请选择您使用微博的经验年数：

无经验

0-1年

1-3年

3-5年

5年以上

6. 请问您在[社区名称]发布帖子的频率是？

从未发布过

少于每周一次

每周一次

每天

7. 请问您在[社区名称]浏览帖子的频率是？

从未浏览过

少于每周一次
每周一次
每天

8. 请问您加入/订阅【社区名称】的年限是？

从未加入/订阅
1年以下
1-3年
3-5年
5年以上

您在【社区名称】中的体验：

接下来的问题会询问您在【社区名称】的体验。您会看到一系列关于【社区名称】的说法。请按照 1 到 5 的等级对您是否同意以下说法进行评分（1=非常不同意，2=不同意，3=既不同意也不反对，4=同意，5=非常同意）。

1. 得益于我参与这个社区，我重要的需求能得到满足。

1. I get my important needs of mine met because I am part of this community.

2. 我和社区里的其他成员有相同的价值观。

2. Community members and I value the same things.

3. 这个社区成功地满足了每个成员的需求。

3. This community has been successful in getting the needs of its members met.

4. 参与这个社区让我感觉更好。

4. Being a member of this community makes me feel good.

5. 当我遇到问题时，我可以和这个社区的成员诉说。

5. When I have a problem, I can talk about it with members of this community.

6. 这个社区里的人们有相似的需求、优先事项和目标。

6. People in this community have similar needs, priorities, and goals.

7. 我可以信任这个社区的人。

7. I can trust people in this community.

8. 我认识这个社区的大部分成员。

8. I can recognize most of the members of this community.

9. 大多数社区其他成员都认识我。

9. Most community members know me.

10. 这个社区有其成员的身份标志和表达，比如可以识别的衣服、标志、艺术、建筑、标志、地标和旗帜等。

10. This community has symbols and expressions of membership such as clothes, signs, art, architecture, logos, landmarks, and flags that people can recognize.

11. 我投入了大量时间和精力参与这个社区。

11. I put a lot of time and effort into being part of this community.

12. 参与这个社区是我生活中的一部分。

12. Being a member of this community is a part of my identity.

13. 与社区里的其他人合得来对我来说是重要的。

13. Fitting into this community is important to me.

14. 这个社区可以影响其他线上社区。

14. This community can influence other communities.

15. 我在意其他这个社区中的成员对我的看法。

15. I care about what other community members think of me.

16. 我有能力对这个社区产生影响。

16. I have influence over what this community is like.

17. 如果这个社区中有问题产生，成员们可以将其解决。

17. If there is a problem in this community, members can get it solved.

18. 这个社区有很多优秀的领导者。

18. This community has good leaders.

19. 参与到这个社区对我来说非常重要。

19. It is very important to me to be a part of this community.

20. 我经常并非常喜欢和其他社区成员一起交流。

20. I am with other community members a lot and enjoy being with them.

21. 我希望能长期成为这个社区的一员。

21. I expect to be a part of this community for a long time.

22. 这个社区的成员一起分享重要的事件，例如各种假日、庆祝活动或危机。

22. Members of this community have shared important events together, such as holidays, celebrations, or disasters.

23. 我对这个社区的未来充满希望。

23. I feel hopeful about the future of this community.

24. 这个社区的成员是互相关心的。

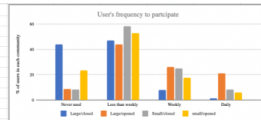
24. Members of this community care about each other.

Appendix 2: Survey data Excel sheet

<https://docs.google.com/spreadsheets/d/1Ouj2cvasNbQoyBui4c2k-GmYrOI8i7jl/edit#gid=1378116331>

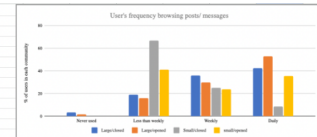
User's frequency sending a post/ messages

	Large/closed	Large/opened	Small/closed	small/opened
Never used	43.75	8.77	8.33	23.53
Less than weekly	46.88	43.85	58.33	52.94
Weekly	7.81	26.32	25	17.65
Daily	1.56	21.05	8.33	5.88



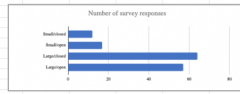
User's frequency browsing posts/ messages

	Large/closed	Large/opened	Small/closed	small/opened
Never used	3.13	3.75	0	0
Less than w/e	18.75	15.79	66.67	41.18
Weekly	35.94	29.82	25	23.53
Daily	42.19	52.63	8.33	35.29



Number of survey responses

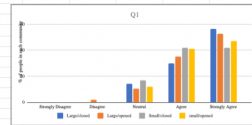
	Total Number response
Large/open	57
Large/closed	64
Small/open	17
Small/closed	12
Total	150



24 Survey Question Charts

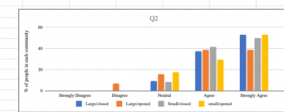
1. I get my important needs of mine met because I am part of this community.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	0	0	0	0
Disagree	0	1.75	0	0
Neutral	14.06	20.53	16.67	31.76
Agree	29.69	35.09	41.67	41.18
Strongly Agree	56.25	52.63	41.67	47.06



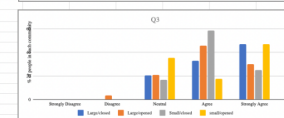
2. Community members and I value the same things.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	0	0	0	0
Disagree	0	7.02	0	0
Neutral	9.38	15.79	8.33	17.65
Agree	37.5	38.6	41.67	39.41
Strongly Agree	53.13	38.6	50	52.94



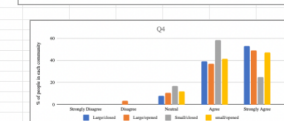
3. This community has been successful in getting the needs of its members met.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	0	0	0	0
Disagree	0	3.51	0	0
Neutral	20.31	21.05	16.67	35.29
Agree	32.81	45.61	58.33	37.65
Strongly Agree	46.88	29.82	25	47.06



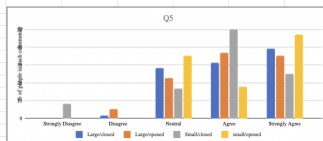
4. Being a member of this community makes me feel good.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	0	0	0	0
Disagree	0	3.51	0	0
Neutral	7.81	10.53	16.67	11.76
Agree	39.06	36.84	58.33	41.18
Strongly Agree	53.13	49.12	25	47.06



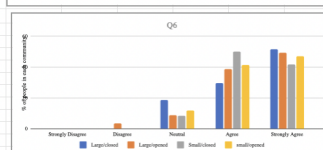
5. When I have a problem, I can talk about it with members of this community.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	0	0	8.33	0
Disagree	1.56	5.26	0	0
Neutral	26.13	22.81	16.67	35.29
Agree	31.25	36.84	50	17.65
Strongly Agree	39.06	35.09	25	47.06



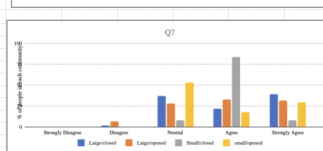
6. People in this community have similar needs, priorities, and goals.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	0	0	0	0
Disagree	0	3.51	0	0
Neutral	18.75	8.77	8.33	11.76
Agree	29.69	38.6	50	41.18
Strongly Agree	51.56	49.12	41.67	47.06



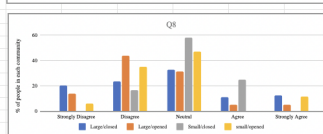
7. I can trust people in this community.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	0	0	0	0
Disagree	1.56	7.02	0	0
Neutral	37.5	28.07	8.33	52.94
Agree	21.88	33.33	83.33	17.65
Strongly Agree	39.06	31.58	8.33	29.41



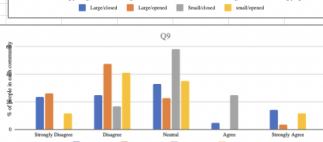
8. I can recognize most of the members of this community.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	20.31	14.04	0	5.88
Disagree	23.44	43.86	16.67	35.29
Neutral	32.81	31.58	58.33	47.06
Agree	10.94	5.26	25	0
Strongly Agree	12.5	5.26	0	11.76



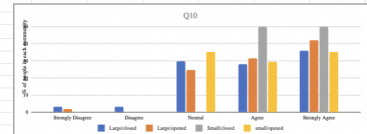
9. Most community members know me.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	23.44	26.32	0	11.76
Disagree	25	47.37	16.67	41.18
Neutral	32.81	22.81	58.33	35.29
Agree	4.69	0	25	0
Strongly Agree	14.06	3.51	0	11.76



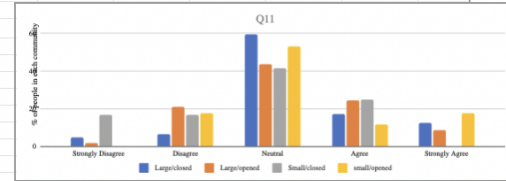
10. This community has symbols and expressions of membership such as clothes, signs, art, architecture, logos, landmarks, and flags that people can recognize.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	3.13	1.75	0	0
Disagree	3.13	0	0	0
Neutral	29.69	24.56	0	35.29
Agree	26.13	31.58	50	29.41
Strongly Agree	35.94	42.11	50	35.29



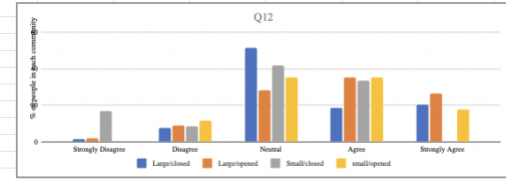
11. I put a lot of time and effort into being part of this community.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	4.69	1.75	16.67	0
Disagree	6.25	21.05	16.67	17.65
Neutral	59.38	43.86	41.67	52.94
Agree	17.19	24.56	25	11.76
Strongly Agree	12.5	8.77	0	17.65



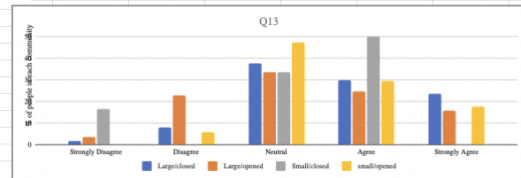
12. Being a member of this community is a part of my identity.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	1.56	1.75	16.67	0
Disagree	7.81	8.77	8.33	11.76
Neutral	51.56	28.07	41.67	35.29
Agree	18.75	35.09	33.33	35.29
Strongly Agree	20.31	26.32	0	17.65



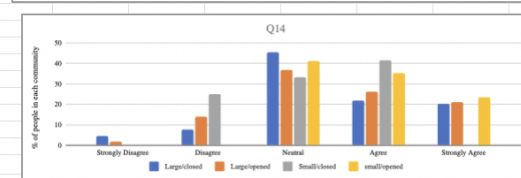
13. Fitting into this community is important to me.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	1.56	3.51	16.67	0
Disagree	7.81	22.81	0	5.88
Neutral	37.5	33.33	33.33	47.06
Agree	29.69	24.56	50	29.41
Strongly Agree	23.44	15.79	0	17.65



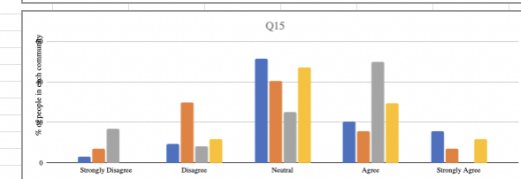
14. This community can influence other communities.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	4.69	1.75	0	0
Disagree	7.81	14.04	25	0
Neutral	45.31	36.84	33.33	41.18
Agree	21.88	26.32	41.67	35.29
Strongly Agree	20.31	21.05	0	23.53



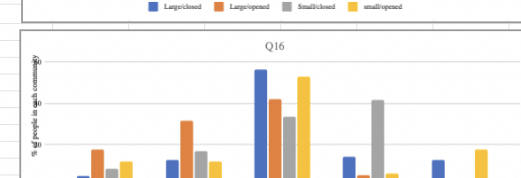
15. I care about what other community members think of me.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	3.13	7.02	16.67	0
Disagree	9.38	29.82	8.33	11.76
Neutral	51.56	40.35	25	47.06
Agree	20.31	15.79	50	29.41
Strongly Agree	15.63	7.02	0	11.76



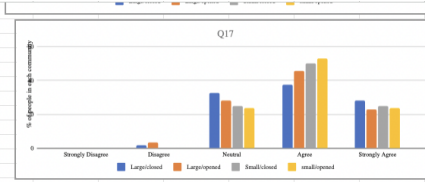
16. I have influence over what this community is like.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	4.69	17.54	8.33	11.76
Disagree	12.5	31.58	16.67	11.76
Neutral	56.25	42.11	33.33	52.94
Agree	14.06	5.26	41.67	5.88
Strongly Agree	12.5	3.51	0	17.65



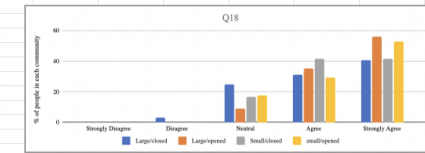
17. If there is a problem in this community, members can get it solved.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	0	0	0	0
Disagree	1.56	3.51	0	0
Neutral	32.81	28.07	25	23.53
Agree	37.5	45.61	50	52.94
Strongly Agree	28.13	22.81	25	23.53



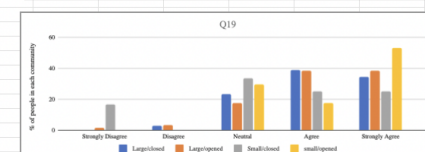
18. This community has good leaders.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	0	0	0	0
Disagree	3.13	0	0	0
Neutral	25	8.77	16.67	17.65
Agree	31.25	35.09	41.67	29.41
Strongly Agree	40.63	56.14	41.67	52.94



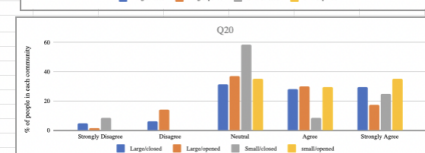
19. It is very important to me to be a part of this community.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	0	1.75	16.67	0
Disagree	3.13	3.51	0	0
Neutral	23.44	17.54	33.33	29.41
Agree	39.06	38.6	25	17.65
Strongly Agree	34.38	38.6	25	52.94



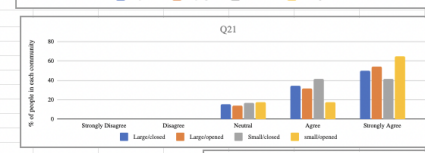
20. I am with other community members a lot and enjoy being with them.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	4.69	1.75	8.33	0
Disagree	6.25	14.04	0	0
Neutral	31.25	36.84	58.33	35.29
Agree	28.13	29.82	8.33	29.41
Strongly Agree	29.69	17.54	25	35.29



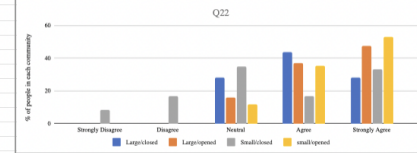
21. I expect to be a part of this community for a long time.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	0	0	0	0
Disagree	0	0	0	0
Neutral	15.63	14.04	16.67	17.65
Agree	34.38	31.58	41.67	17.65
Strongly Agree	50	54.39	41.67	64.71



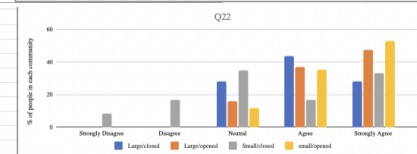
22. Members of this community have shared important events together, such as holidays, celebrations, or disasters.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	0	0	8.33	0
Disagree	0	0	16.67	0
Neutral	28.13	15.79	35	11.76
Agree	43.75	36.84	16.67	35.29
Strongly Agree	28.13	47.37	33.33	52.94



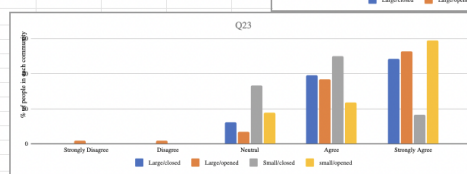
22. Members of this community have shared important events together, such as holidays, celebrations, or disasters.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	0	0	8.33	0
Disagree	0	0	16.67	0
Neutral	28.13	15.79	35	11.76
Agree	43.75	36.84	16.67	35.29
Strongly Agree	28.13	47.37	33.33	52.94



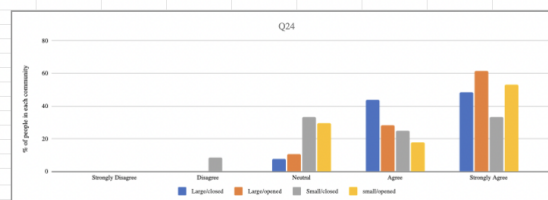
23. I feel hopeful about the future of this community.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	0	1.75	0	0
Disagree	0	1.75	0	0
Neutral	12.5	7.02	33.33	17.65
Agree	39.06	36.84	50	23.53
Strongly Agree	48.44	52.63	16.67	58.82



24. Members of this community care about each other.

	Large/closed	Large/opened	Small/closed	small/opened
Strongly Disagree	0	0	0	0
Disagree	0	0	8.33	0
Neutral	7.81	10.52	33.33	29.41
Agree	43.75	28.07	25	17.65
Strongly Agree	48.44	61.4	33.33	52.94



Summary all 24 questions

	number of highest response in strongly agree
Large/closed	11
Large/opened	2
Small/closed	1
small/opened	10