Research on Problem Identification and Optimization Strategy of Bilibili User Experience

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Abstract. In the past decades, with the development of technology, some companies like Bilibili stand out as one of the most popular short video platforms. However, even though Bilibili has achieved great success in the past decades, a few researchers have analyzed the negative user experiences of Bilibili and provided some optimization strategies for the company to become more competitive in the future. User experiences might play a decisive role in a company's long-term success. Therefore, based on the survey and interview approaches, this research has analyzed two major problems faced by Bilibili when it comes to user experiences. First, users have negative experiences when seeing some attacking and unfriendly comments or barrages. Second, users may have a problem with barrages when using the platform. Based on the two problems, two main optimization strategies are offered, including strengthening supervision and punishment for attacking unfriendly barrages or comments and optimizing barrage choices. Hopefully, this research could help Bilibili to develop better user experiences in the future. At the same time, this research will provide some insights into other countries in the market.

Keywords: Bilibili · User experiences (UX) · Optimization strategy

1 Introduction

1.1 Research Background

The past decades have witnessed great changes in people's lifestyles. With the development of technology, some apps have become more popular. Among all the popular Apps, Bilibili, a barrage video-sharing website headquartered in Shanghai, Chinese Mainland, starting with ACG-related content, stands out. Hansong Tian (2021) points out that "after more than a decade of development and covering more than 7,000 interest circles, Bilibili has gradually become a highly concentrated cultural community and video platform for the young generation in China" [1]. This has shown that Bilibili is a successful video platform. However, even though the company has achieved great successes in the past, Bilibili could make further improvements in user experiences. Though the concept of "user experience" is relatively vague and has been defined differently, Don Norman

and Jakob Nielsen (2022) point out that user experience refers to all aspects of end-user interaction with the company, its services, and products [2]. This means that when users use the application or website of Bilibili, their all feelings and experiences are user experiences. User experiences are significant because they fulfill users' needs and bring about positive experiences to users who will become loyal to the product [3]. In addition, good user experience is the key foundation for long-term business success [4]. Therefore, identifying the problems of user experiences for Bilibili matters greatly for the company to optimize its business and achieve long-term success to a great extent. In the meantime, researching user experience problems with Bilibili could provide insights into other short video companies to optimize their Apps or websites in the long run.

1.2 Literature Review

Previously, a great number of researchers have studied user experience (UX) and Bili-bili. Weilin Liu, Zhaoshuang He, and Mengxin Liu (2021) point out that by studying questionnaires about user experiences of Bilibili, the content and functions of the bar-rage video website significantly affect the user experience of BiliBili [5]. In addition, Weilin Liu, Zhaoshuang He, and Mengxin Liu (2021) also find in their research that user emotion plays a mediating role in content and user experience. Still, the impact of environment and website interaction design on user experience is not significant [5]. Yifei Zhao and Yicheng Zhao (2020) also mention that Bilibili gives up the traditional advertising revenue to show respect to users and maintain user experience [6]. This optimization strategy has played an indispensable role in the success of the company in user experiences.

Furthermore, Bilibili allows users to communicate or comment in various languages, such as Japanese and Chinese, which has improved user experiences by adding play-fulness, according to the research of Yi Zhang (2019) [7]. Some other researchers have proposed the significance of user experiences. Ramlan Jantan and other researchers propose that users' experiences play a crucial role in product development, time attitude, and emotion [8]. This has indicated that users' experiences are indispensable for product development to a great extent. They also point out that if a company desires to become popular, good user experiences are likely to help the company to achieve success in the long run [8]. These researches have shown that Bilibili has some unique advantages in user experiences. These advantages have helped Bilibili to grow into one of the most successful short video companies. Researchers have focused on the successful user experiences of Bilibili.

Based on the literature review, it is found that most scholars have analyzed how Bilibili became successful by providing some great user experiences. However, a few scholars or researchers have proposed optimization strategies for Bilibili user experiences. Therefore, this research article aims to emphasize one problem of Bilibili, which might greatly impact user experiences of Bilibili users. After analyzing this problem of Bilibili, some optimization strategies for the organization to become more competitive in the short video market.

1.3 Research Framework

This research article will be divided into several sections. This research will first introduce the methodology of the research. After that, the research results with proper methods will be presented. Next, based on the results, a detailed discussion about the problem of Bilibili will be shown, and some optimization strategies will be given in this section at the same time. Finally, this research will be concluded with a conclusion that includes key findings, research significance, and limitations of this research. Hopefully, the research on user experience problems about Bilibili could help Bilibili to make some improvements and provide some insights into other short video companies to optimize their Apps or websites.

2 Methods

To figure out the impact of opposite remarks on the barrage because of the video content, two methods will be used in this research, survey, and interview, respectively.

2.1 Survey Method

The questionnaire survey research method refers to the research method of directly obtaining relevant data and analyzing these data through investigation and understanding of the objective situation [9]. A questionnaire or survey has some benefits. For instance, it could easily collect and present the target population's ideas. At the same time, a survey or questionnaire can easily be given out and collected online. In this paper, through the analysis of user comments, this paper finds out the impact of opposites and personal attacks on the user experience to better improve the product. Under this method, a questionnaire designed in advance will be given to participants who are between 18 years old to 30 years old. Hansong Tian (2021) points out that young users welcome short video apps like Bilibili. Therefore, young users' opinions might be more effective regarding the problem of Bilibili [1]. There will be about 20 participants who are chosen randomly. Potential participants will be users of Bilibili. They will finish an online questionnaire about the problems that might have impacted their user experiences while using the App or Website. Their information will be kept confidential. The relevant data will be collected and summarized. The survey contains eight multiple questions and one open question (Please refer to the appendix for details). These survey questions aim to collect effective information about some possible user experience problems of Bilibili.

2.2 Interview Method

An interview method is an approach to finding the story about the interviewees through communications [10]. Through the interview, the interviewer can explore the in-depth information around one specific topic [3]. In this study, three people will be interviewed in-depth to show their ideas about Bilibili. The three participants should have used Bilibili for more than two years. In this way, their ideas could be more effective in the problem of Bilibili. The three people will be interviewed separately with the same questions online.

Each interview will last about 30 min. When conducting the interview, several questions will be asked. These questions are listed below:

How long have you been using Bilibili?

What is your experience when using the App or website? Negative or positive, and why?

Do you think Bilibili has some negative user experiences on you? If so, what kind of experiences?

If you could suggest an improvement for Bilibili, what the suggestions will be?

These are four major questions in the interview. Questions related to the theme or topic might also be asked during the interview. The interviewees' answers will be recorded, categorized, and summarized for further analysis.

3   Results

In this section, the survey and interview results will be presented in detail. The section will first show the survey results. Then the interview results will be presented. Later, some implications of the results will be shown.

3.1   Survey Results

Based on the questionnaire or survey results and interview results, it could be found that short video apps are facing some challenges. Initially, most of the participants who took the survey believed that some users on Bilibili are using personal attacks and opposing remarks on the barrage because of the video content, which has greatly influenced the user experiences of users. A few of them think that there are too many barrages, which affects their viewing of videos even though they hope to join some discussions while watching. The three interviewees all mentioned the negative impacts of bad languages and barrage problems of Bilibili. 13 out of 20 participants who took the survey showed similar concerns regarding video barrage and unfriendly languages. 80% praise Bilibili for no advertisements distracting them when watching the relevant videos. 40% of participants think of giving up the App because of unhappy user experiences. Compared with other video platforms such as Tik Tok, 90% of participants think they prefer Bilibili. This has shown that most users of Bilibili are loyal users. However, if Bilibili does not improve user experiences, the company might lose some loyal users based on the questionnaire or survey results. For the open question, 16 out of 20 participants hoped that Bilibili could increase punishment on people who always post unfriendly information.

3.2   Interview Results

The results of interviews also indicate some concerns about user experiences of Bilibili. One interviewee mentioned that if users dared to comment on videos and their views were inconsistent with those of most people, and someone would immediately attack them. BiliBili's way of dealing with it was to delete comments, and there was no punishment. As a result, more and more people swore or used unfriendly language when seeing others having different ideas from them. The other interviewee showed a similar concern.

He mentioned that he used to use Bilibili a lot as he could view some videos that could not be found on other platforms. At the very beginning, people were quite friendly. However, many people are not friends now, and Bilibili does not deal with this issue properly. He further said that if someone attacked the others, his account could be closed for up to 7 days, but many people who scolded directly had many accounts. BiliBili's punishment was not harsh, resulting in a poor experience for many people. Some users even gave up using the App or website anymore. The third interviewee mentioned that once she updated a video online. Some people made some bad comments, and she tried to report the issue. However, the platform did not help her, and she could not either delete the comment. Two interviewees also thought the barrages might cover the whole screen when watching the video, which made them uncomfortable. All of them once had the idea to give up the App. However, they would still use the App to watch videos from time to time.

3.3   Implications

Not limited to Bilibili, there are many opposite and unfriendly comments on other media platforms such as Weibo, Douyin (Tik Tok), and others. It seems that the media industry in China is facing this serious problem. While different ideas shall be expressed online, the remarks should not hurt others or even bring about some battles. The separation of people online might become a reality. In China, the official social media accounts might present one voice on one issue. And impacted by collectivist culture, it is hard for people to tolerate some different ideas. However, with media development, more and more Chinese people access different ideas worldwide. Therefore, opposite ideas become prevalent on media platforms, and people become more separated. Bilibili is just one of the examples to a great extent. Most users who prefer short video apps like Bilibili are young users who are likely to be energetic and stubborn in their ideologies. Therefore, Bilibili should take action to deal with opposite, attacking, and unfriendly barrages or comments. If not, the platform might be separated. Users might have negative experiences and finally give up the App or website. Without proper regulations and plans, the situation will become worse and worse.

In general, based on the survey and interview results, it could be found that some users do not have good experiences when using Bilibili. These negative user experiences might ultimately make them give up the platforms. Therefore, some solutions should be developed for Bilibili to tackle the problems and optimize user experiences further.

4   Discussion

This section will discuss the major problems of Bilibili's user experiences based on the survey and interview results and provide corresponding optimization strategies to improve the user experiences of Bilibili in the long run. Two problems of user experience problems are identified, and two corresponding solutions or optimization strategies are provided at the same time. Moreover, some implications for optimizing the strategies are offered in this section.

4.1 Problems Identification of Bilibili's User Experiences

Based on the results, it could be found that Bilibili needs to make some improvements to its user experiences by solving two major problems. First, it should deal with users' attacking or unfriendly barrages and comments. Unfriendly barrages might bring about some negative impacts on people. For instance, users might form two sides and criticize each other heavily. If this happens, both sides' users feel angry and are not likely to have good user experiences. Other users who do not join the fights will feel unhappy seeing other people's quarrels. In terms of this, Bilibili should optimize this user experience. Second, Bilibili should also deal with the barrage issue. Sometimes, the barrages occupy the whole screen. Even though Bilibili enables users to express their ideas and show the ideas on the screen, too many barrages might distract some users' experiences when using the App or website of Bilibili.

4.2 Optimization Strategies of Bilibili

In this section, two major optimization strategies will be presented. The optimization strategies are in line with the problems proposed above respectively.

Strengthen Supervision and Punishment
The first problem that might threaten the user experiences of Bilibili is the unfriendly or even hateful comments or remarks on the platform. Based on the above analysis, it could be found that Bilibili has adopted some approaches to punishing accounts that give unfriendly comments. However, the punishment is not strict, and many people who criticize others could have many accounts. From this perspective, Bilibili's current solution is not ideal. The company must strengthen supervision and punishment on accounts that frequently give unfriendly remarks. The company could supervise some sensitive unfriendly words and delete them to reduce the negative impacts. At the same time, the company should give more power to users to delete some unfriendly information. Supervision might not be easy as some worry that too much supervision might negatively affect users' rights. However, supervision for harmful and dangerous remarks or comments is necessary for Bilibili to improve user experiences.

At the same time, two interviewees have mentioned that the punishment of Bilibili is not harsh when facing people who post unfriendly comments. Bilibili needs to make some improvements as well. The punishment should be harsher to let people realize that if they show negative remarks, they will suffer from doing so. Therefore, to optimize user experiences (UX), Bilibili could let users report the relevant issues and respond to the problems timely. It could extend the time for locking the accounts to 14 days or even a month. Bilibili could also raise the threshold for registering an account to avoid users who comment unfriendly and have many accounts. Based on the survey and interview results, improper remarks have already hurt some users. In terms of this, it is indispensable for Bilibili to take some action to strengthen supervision and punishment. Only with strengthened supervision and punishment, could Bilibili improve its user experiences and ensure long-term prosperity.

Optimize Barrage Choices

To tackle the second problem, Bilibili could optimize the barrage choices. This means that the company could give users more choices in the barrage to improve user experiences. Currently, users have two choices: show the barrage and not the barrage. When they choose to show the barrage, all barrages will appear. Users might not view the contents of some popular videos when barrages occupy the whole image. If they choose not to show the barrages, they could see nothing. Some users might not feel alone when seeing barrages. Therefore, Bilibili might develop the third choice for users by showing parts of barrages. If possible, users could choose to show the most recent ten barrages, twenty barrages, or so. In this way, users' experiences could be improved. The needs of various users could be met at the same time. Johanna Kollmann, Helen Sharp, and Ann Blandford (2009) point out that user experience (UX) practitioners need to understand user-centered design (UCD) [5]. When designing the barrage function, users' needs should be the central consideration for Bilibili. The optimization design to give more choices to users is not complicated. However, it could bring about better user experiences for users. In the long run, Bilibili could keep its successes with this optimization as user experiences could be improved further to a great extent.

4.3   Implications

This section will provide some implications based on the discussions of problems of Bilibili's user experiences with other companies or the industry as a whole. Other companies, especially social media companies, could also adopt similar approaches to optimize the user experiences of their platforms. On the one hand, media platforms share many similarities. The users of Bilibili might also use other popular media platforms. Therefore, problems that happened to Bilibili could happen to other media platforms. At the same time, Bilibili should try to know users' voices as much as possible and emphasize the importance of user experiences. One interviewee mentioned that she reported the relevant problem to Bilibili but did not receive proper solutions. This has shown that Bilibili does not pay much attention to user experiences or needs. It might not be the problem of the interviewee only. Many people might have encountered the same problem. However, Bilibili does not care much about this. If the company does not pay attention to user experiences, it might fail in the future due to fierce competition. Its competitors, such as Tik Tok, might gain some advantages.

5   Conclusion

5.1   Findings

By using the survey and interview methods, this research article has analyzed the problems of Bilibili's user experiences. The survey and interview results indicate that some problems will influence user experiences greatly. Bilibili needs to deal with two major problems to optimize the user experiences. First, the company should deal with attacking or unfriendly barrages and comments to optimize user experiences. Second, the company should also deal with the barrage issue to provide more choices for users when

it comes to the presence of barrages to further optimize user experiences. Facing these two problems that might impact the company's user experiences, Bilibili could optimize its business in several ways. Initially, it could improve or strengthen its supervision and punishment for unfriendly comments or barrages. When some users are punished heavily and cannot register many accounts to hurt others, they might consider their language when commenting or barraging. At the same time, the user experiences of other users could be improved. Second, Bilibili should provide more barrage choices for users. Some users just want to see parts of the barrages. However, at present, users only have two choices, see the barrages and not see them. Sometimes, the barrages occupy the whole screen, negatively impacting the user experiences.

5.2 Research Significance

This research is of great significance for the development of Bilibili. Good user experiences (UX) could ensure the long-term prosperity of Bilibili. Many other similar platforms or apps may also obtain some insights from the research of user experiences of Bilibili. Some platforms, such as the online video platform Tencent, also show barrages and comments, influencing user experiences. Therefore, studying the problems of Bilibili's user experiences and providing the relevant optimization strategies could help Bilibili make some improvements and further offer other companies some insights into their user experiences.

5.3 Limitations

This research article is not perfect but has some limitations. First, the number of survey participants is not large. This might influence the survey result. Limited by time and other reasons, the survey method is not extended to more participants. In the future, if allowed, more participants will be preferred in this study. Besides, this article could have used more secondary data to support the relevant arguments. However, it mainly adopts primary data. Two approaches could have been used to diversify and enrich the research article. In the future, these improvements will be made.

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