

An Analysis of the Development Dilemma of Baidu Tieba from the Perspective of Platform Capitalism

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Abstract: Baidu Tieba has become one of the favorite online entertainment sites for many Internet citizens over the last decade. However, it faces obvious development difficulties nowadays. The business model of platform capitalism is mainstream in some platform firms, which is more competitive in the market. This study hopes to use the business model of platform capitalism to find out the reason for the development dilemma of Baidu Tieba. Meanwhile, it can illustrate the relationship between platform capitalism and platform firms. The paper will analyze Baidu Tieba as a network platform product in detail and compare it with other platform companies dominant in the market. In conclusion, there are three significant factors leading to the decline of Baidu Tieba: Firstly, the advertising model of Baidu Tieba impedes user interaction and imposes labor exploitation on users. Secondly, the social function of Baidu Tieba is separated from offline social life, so Baidu Tieba fails to benefit from the network effect. Lastly, the core business of Baidu Tieba is limited, lacking the monopolistic tendency to expand and gain a superior position in the market.

Keywords: Baidu Tieba, platform capitalism, user interaction, network effect, monopolistic tendency

1. Introduction

Born in 2003, Baidu Tieba (also known as Baidu Post Bar; the following is abbreviated as BTB) is an online communication community based on keywords. People who are interested in the same topic gather together to communicate and help each other, and its topics include games, novels, sports, entertainment, life, and other aspects. After more than ten years, BTB has become one of the lifestyles of many Internet citizens [1]. However, nowadays, the development of BTB faces obvious difficulties. In horizontal comparison, Weibo and WeChat (both are social networking software in China), which were born later than BTB, have a higher monthly user activity scale, user stickiness, and user penetration rate than BTB nowadays. In 2014, the number of users and total access time on Weibo were about 70 million lower than those on BTB. But the situation is opposite in 2016. In 2016, BTB had 200 million fewer accesses and 30 million fewer total accesses than Weibo. From the longitudinal data, we can see that the development dilemma of BTB is also very apparent. The number of monthly active users reached more than 300 million in 2015. By 2020, the monthly active users were only 35.873 million [2]. To attempt to analyze the business pattern of BTB to find

out its development dilemma, it is necessary to consider the mainstream business model of platform firms in the current market.

2. Literature Review

With regard to platform capitalism, most of the scholars in China criticise it from the angle of plutonomy. Li Huanan concludes that the online game platform has accomplished the proliferation of game capital in the closed-loop labour exploitation of playwork labour, which shows the exploitation mechanism of platform capitalism [3]. In foreign literature, the research on platform capitalism is fruitful. Except for attention to digital labour, some scholars focus on the data value because platform capitalism is based on exclusive access to big data and on platforms' ability to capture final users through efficient algorithmic profiling [4]. Besides, Alexandr A. Balayan conducts research on the transformation of the advertising market under the influence of platform companies, using the US example that shows the mechanism of digital disruption in the print media business model [5].

In English literature, research about BTB is rare, and research from 2019–2023 focuses on online fraud victimization. Claire Seungeun Lee applies routine activity theory to show that different types of fraud are perpetrated online and that victimisation methods are associated with particular types of media [6]. Besides collecting data from BTB, Claire Seungeun Lee uses a crime script analysis to find that C2C fraud develops through pre-operation, operation, finalisation, and exit stages, sharing commonalities with other online identity fraud processes on China's online platforms [7]. In China, the study of BTB focuses more on cultural and social areas. Chen Zhu argues that some youth groups in the virtual community on BTB rely on institutionalising discourse practice to establish group identity and play game-like individuals, expressing the pressure and dissatisfaction in the process of individual socialisation through collective action, which shows the youth subculture [8]. Using the data from three different topic communities of BTB, Sun Hailei finds the crucial influencing factors of the user information interaction, including objective aspects like the environment of the topic community and the post content, and subjective aspects like intentional and emotionally psychological factors [9].

The author thinks researching this issue is valuable and worthwhile for two reasons:

Firstly, in the past, scholars' research about BTB mainly focused on user groups, communication mechanisms, virtual community culture, and so on, and there was a lack of deep and systematic research on product development. Studying the development dilemma of BTB is helpful to deepen our understanding of contemporary network users' needs and the characteristics of the current network platform.

Secondly, most of the study on platform capitalism in China is critical, such as data exploitation, labour alienation, life politics, and other issues, with less analysis of its business model combined with specific platform products. This study attempts to take a Chinese platform as an example and use the business model of platform capitalism to analyse the reasons why it is inferior in the contemporary platform competition, which will help us understand the business model of platform capitalism inserted in the network products we use in daily lives.

In this study, the author will apply the business model of platform capitalism to explain the development dilemma of BTB and compare BTB with some famous platforms that are relatively successful and competitive.

3. The Features of the Business Model of Platform Capitalism and Categories of Platform Firms

Essentially, platforms are a newly predominant type of business model premised upon bringing different groups together [10]. Their business model has the following features:

Firstly, platforms are designed as a mechanism for extracting and using that data: By providing the infrastructure and intermediation between different groups, platforms place themselves in a position in which they can monitor and extract all the interactions between these groups. They use data as raw materials to make profits [11]. Secondly, digital platforms are reliant on network effects: the more users who use a platform, the more valuable that platform becomes for everyone else. Therefore, platforms have an intrinsic tendency to expand [11]. Thirdly, platform capitalism has obvious monopolistic characteristics. Generally, the monopoly behavior of the platform means that one or more powerful platform companies use the extraction, analysis, use, and sales of data to control or monopolize the industry market by virtue of their competitive advantages in the market [12].

According to the commercial pattern of platform firm, Nick Srnicek presents five different types of platforms [11]:

1. Advertising platforms(e.g., Google, Facebook), which extract information on users, undertake a laborious analysis, and then use the products of that process to sell ad space.
2. Cloud platform, which owns the hardware and software of digitally dependent businesses and rents them out as needed.
3. Industrial platform, which builds the hardware and software necessary to transform traditional manufacturing into internet-connected processes that lower the costs of production and transform goods into services.
4. Product platform, which generates revenue by using other platforms to transform a traditional good into a service and by collecting rent or subscription fees on them.
5. Lean platform, which attempts to reduce their ownership of assets to a minimum and to profit by reducing costs as much as possible.

The BTB discussed in this essay can be regarded as the first type — Advertising platforms, which extract data from the process of user interaction and analyze them, and then use the product to sell ad space.

4. The Analysis of Baidu Tieba's Development Dilemma from the Angle of Platform Capitalism

4.1. Limited Core Business

Platform capitalism has obvious monopolistic characteristics and has been further strengthened with the development and expansion of platforms. Generally speaking, platform monopoly refers to the behavior of one or more powerful platform companies that use the extraction, analysis, use, and sale of data to control or monopolize the industry market by virtue of market competitiveness [12]. Leading digital platforms should be conceived as planning actors whose objective is to extend their control over other actors involved in their production and innovation network [13]. If a platform tends to become a market leader, or one of the oligopolies, to a large extent, its core business needs to become one of the essential infrastructures for people's lives.

For instance, WeChat, an app in China with currently over one billion monthly active users, has become the major tool for people to communicate remotely and make electronic payment [14]; Like Uber and Didi Chuxing in China, most people need to take taxis by them; Amazon and China's Taobao are two of the main channels for people to shop online. They are becoming an indispensable part of people's lives. The core business of WeChat has expanded from pristine online

communication to numerous aspects, such as electronic payment, mobility service, shopping service, financial planning, and so on, which covers most fields of people's daily lives.

As a typical virtual community online, BTB distinguishes and gathers different users through a series of keywords. Users with the same interests will have a continuous topic discussion on a certain keyword, thus gaining a sense of collective identity and group belonging. For instance, a person who is unwilling to get married and have the next generation may meet the obvious contradiction with people around him, but he can join a group based on keywords like unmarried sterility in BTB. Thus, he may find people with the same opinions and gain spiritual profit. However, the core business of BTB lacks monopolistic power for two reasons: first, the online discussion community is closed and not linked to people's basic needs, such as food, housing, transportation, and so on. In other words, BTB does not possess the nature of infrastructure but provides people's daily life services. A person not using BTB will not have a less convenient life. But imagine if we lived without WeChat; the lives would obviously become inconvenient.

Besides, the network discussion community can be a sub-business of core businesses. The content community has become mainstream, and the social circle established based on interest has become a useful means for many platforms to gather users with different tastes, extend users' use time, and enhance user stickiness. Like e-commerce platforms and video websites, they can divide users into different communities according to their consumption preferences and viewing interests, so as to enhance the interaction between users. Therefore, the user may become more dependent on these platforms. Such a platform community is apparently more effective and attractive than BTB and largely replaces its function. Thus, the core business of BTB lacks uniqueness and competitiveness in the market and is likely to become the victim of the monopolistic expansion of other platforms.

4.2. Outdated Advertising Model

As an advertising platform, it is important for BTB to extract and analyze users' interaction data to sell advertising space [11]. However, BTB's current advertising mode has hindered interaction between users. The advertisement inserted on the post details page will increase the invalid information in the social network and undermine the user experience. When users browse the posts or comments, they are inevitably forced to watch the advertisements between the content created by different users, which is troublesome.

As a network forum, BTB is a community platform for users to convey opinions and emotions. Essentially, it tends to require users to communicate by text or pictures, so the information transmission is more concise and straightforward than by multi-sensory ways like video. Therefore, the current pattern of BTB is difficult to be compatible with video, leading to its backwardness in the advertising mode, and inevitably having negative effects on the experience of user interaction.

Bilibili is a video-sharing platform featuring user-generated videos in China [15]. Compared with BTB, its advertising approach is more coordinated with users. In addition to a small number of advertisements directly connected with advertisers, its main advertising is integrated with the video content created by users. Creators combine advertising requirements with video content, which enables users browsing to receive advertising information in a relaxed and entertaining way.

In addition, the outdated advertising model of BTB imposes labour exploitation on users. BTB extracts data from user interaction to make profits, but users fail to share it. Users are only spiritually motivated to create content and lack material incentives. Advertisements embedded in content created by users, such as some videos on Bilibili, enable creators to get paid by collaborating commercially with advertisers and largely motivating users to join online communities. To some extent, as an intermediary of user interaction, BTB imposes labour exploitation on users, which will negatively affect the user's sense of experience and enthusiasm for

interaction. Thus, BTB does not play a good role as an intermediary, which is definitely adverse to extracting data from users. This may lead to a vicious cycle for a platform firm.

4.3. Network Effect

Digital platforms rely heavily on network effects, which means the more users who use a platform, the more valuable that platform becomes for everyone else. For example, Facebook has become the default social networking platform [11]. People may tend to use Facebook because people around them are using it, and they can consolidate their relationships with their friends and families by interacting on Facebook. The situation in BTB is different. In Maslow's Hierarchy of Needs, Maslow divides needs into five levels: physiological needs, safety needs, belongingness and love needs, esteem needs, and self-actualization needs [16]. BTB is an effective means to satisfy personal needs. BTB has various themes. Users can choose a certain field, find people with the same hobbies to socialize with, and reply to each other to promote their relationship. At the same time, publishing posts will also enable users to get likes and fans, meeting their needs to be respected and self-fulfilling. It can be seen that BTB is separated from offline social life, and people will not become more likely to use it because of the people around them using it. So, it is not a tool for people to continue offline social interaction. On the contrary, it is an alternative tool for people to enrich their social lives; people seek a sense of identity and belonging in another space. Sometimes, people choose BTB because they are unable to gain such feelings offline or because their self-awareness conflicts with social reality. Therefore, the social model of BTB makes it difficult to attract more users from the existing ones, and it is hard to expand the influence of the platform through the network effect.

5. Conclusion

The business model of BTB is less competitive than the business model of platform capitalism, which is the reason for BTB's development dilemma. Specifically, there are three aspects. Firstly, in order to promote user interaction, the profit business of the platform should not weaken the users' sense of experience, but rather establish a harmonious relationship. The advertising method of BTB not only damages the user's sense of experience but also exploits the user's labor value to some extent, resulting in the user leaving the platform. It means that the user interaction data as raw materials for the firm will be reduced, which is not conducive to the development of the platform. Secondly, network effects contribute to platform development. However, it is difficult for BTB to attract more users to join the platform through its existing users, so it cannot enjoy the benefit brought by the network effect. Lastly, platform capitalism has a monopoly tendency. Platforms can penetrate into other fields based on the advantages of their core business and become the only winners in the market. The core business of BTB does not have the ability to expand and monopolize because of its closed nature, and it has the potential to be squeezed by other expansion platforms. There are some limitations to this study. It is only an exploration of theoretical analysis, and the conclusion needs to be further demonstrated, such as by using empirical research methods like interviewing BTB's users.

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