Platform Capitalism: Social Gamification in Innovative Advertising Practice of the App

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Abstract: This article attempts to discuss the innovative application of gamification measures in mobile App design. Currently, many apps continue to incorporate gamification measures, aiming to increase user engagement within the platform and enhance interaction among users. This article argues that gamification measures have essentially become a means of platform capitalism, aiming to exploit users' attention and time spent within the app for extended periods, while concealing suppliers' advertisements in the form of games and interactions during everyday app usage activities. This represents an innovative advertising practice within apps, encouraging active user participation through gaming and rewards, and creating competitive and entertainment effects through integration with social networks. This article presents case studies of three innovative app designs: Pinduoduo, the live bullet interactive screen game on Chinese TikTok, and WeChat mini-games programs, to illustrate these points. The research suggests that future software designs will gradually strengthen the concept of social gaming, making them not only easy to spread but also difficult for users to resist.

1. Introduction

"Digital economy refers to those businesses that increasingly rely upon information technology, data, and the internet for their business models…capitalism demands that firms constantly seek out new avenues for profit, new markets, new commodities, and new means of exploitation"[1].

Srnicek, 2017, Platform Capitalism

With the widespread popularity of the Internet and mobile devices, the global online population is continuously increasing. People are gradually realizing that in this era of rapid information exchange, individuals in society can no longer completely detach themselves from mobile terminals, or more accurately, from controlled internet programs. The more commonly known term today is platforms. Many media researchers have also gradually discovered that among interconnected devices and diverse software applications, these social platforms, shopping platforms, ride-hailing

platforms, search platforms, and so on, are gradually forming unique media landscapes and online platform societies. These platform applications deeply influence social interaction and continually redefine social culture, while also affecting people's offline behavior. Technology and culture constantly intertwine and influence each other, giving rise to various forms of capitalism in digital platforms. This article, drawing on the research of Western scholars, reflects on the forms of platform capitalism present in Chinese software. The article argues that these software platforms are continuously strengthening their penetration into users' social networks, using gamification to expose users to advertisements provided by sponsors, and increasing user stickiness through social gaming. Future platform designs and software will attempt to develop more features and embed more gamified designs to cultivate user behavior. In the final section, the article also attempts to provide some new ideas to resist digital exploitation, emphasizing that the most effective way is to deepen users' media literacy.

2. Literature Reviews

Srnicek defines "platform capitalism" as a new economic model that creates economic value by extracting, analyzing, possessing, and utilizing data, representing a new business model for capital in the digital domain[1]. Unlike traditional business models, capital efficiently allocates and integrates online and offline resources after commercializing the Internet, thereby controlling production materials to further consolidate its dominance. Srnicek emphasizes that data is the core production material of platform capitalism, increasingly becoming the focus of concern for businesses, customers, and related interest groups[1]. According to Srnicek, data, like "oil," can be continuously extracted and refined by commercial companies for various purposes[1]. Srnicek argues that the establishment of digital platforms is a crucial prerequisite for the development of platform capitalism, as platforms serve as the infrastructure for digitization, enabling commercial companies to obtain large amounts of user data[1]. According to Srnicek, once platforms are established, they become devices for internet technology companies to freely access user activity data[1]. Within platforms, user interaction generates traffic and "network effects," increasing the platform's value with more users. Platform designers control and establish rules, requiring users to agree to provide their activity data to the platform to use its services. As more users join, platforms can better understand user needs and profit from them. Platforms control the allocation and use of a large amount of production resources, namely data, monetizing these data and generating real economic value. In Srnicek's study, he specifically points out that Google's optimization service is essentially the extraction of user data, selectively selling users' search data and cookies to advertisers in exchange for substantial economic benefits [1].

Van Dijck et al. propose three key aspects of constructing platform mechanisms: "datafication," "commodification," and "selection"[2]. In their view, platforms quantify and digitize users' preferences through continuously generated and flowing user data, dwell time, interaction results, and abstract emotional expressions, matching relevant advertisers and pushing content that interests users[2]. As the process of platform datafication deepens, platforms monetize these abstract and concrete contents, endowing them with special digital economic value, such as user attention, influence, number of followers, and positive feedback rates, turning them into tradable commodities. After platform content is commodified, platforms establish relevant rules and manage the circulation of these special commodities, guiding user interaction methods and implicitly formulating new social interaction paradigms. Platforms also propagate the values of platform capitalism to users. Users appear to control everything within the platform, but in reality, they can only see the content recommended by platform algorithms, maintaining a delicate dynamic of choice and no choice on the platform[1][2][3].

Ens and Márton (2024) argue that users engage in online labor according to the rules set by platforms, creating economic value, which is advantageous for platforms in a practice they term "digital hustling," as it increases user interaction and activity on the platform, generating special economic value[3]. In this process, researchers like suggest commercial platforms employ various methods to attract more users and maintain user stickiness[4]. Utilizing "gamification" measures within platforms to ensure user stickiness and cultivate user behavior is a common practice. Ruffino defines gamification as the use of game design elements in non-game contexts, such as badges, rankings, contribution points, virtual coins, and so on[4]. Fuchs et al. note that gamification measures have long been present in digital media and widely used in marketing, advertising, and management, all of which have certain influences on user behavior[4]. Ian Bogost believes that gamification measures aim to cultivate specific user behaviors and increase user loyalty through game design mechanisms, thus gamification is essentially a form of "explorationware"[4]. Platform capitalism also emphasizes user stickiness and user base; Srnicek points out that for platform capitalism to operate normally, platform services need to be optimized, and user interaction and information exchange between users are encouraged to generate user stickiness and attract more users[1].

Van Dijck et al. categorize platforms into two types: those providing basic services, which include the Big Five: Amazon, Alphabet-Google, Facebook, Apple, Microsoft, and sectoral platforms specialized in specific areas[2]. The Big Five constitute the infrastructure that influences social interaction and forms a unique Western online culture. Researchers believe that the technology companies led by Tencent and Alibaba Group, with their development of WeChat and Alipay, have gradually become China's electronic infrastructure, influencing the electronic practices of the Chinese people[5][6].

In the development process, technology and culture influence each other. Different cultures also affect the direction of technology. In China, where electronic infrastructure is gradually taking shape, different forms of platform capitalism have emerged. These trends can be clearly observed in both established and emerging electronic platforms. In the following case analysis, these gamification measures aspiring to become "super apps" and the means they employ will be detailed.

3.1 Case Study One: Pinduoduo Orchard

Pinduoduo is a highly renowned electronic shopping platform in China, which rapidly gained popularity in 2018 due to its low prices, innovative gamified approach, and clever social marketing strategies. Tencent is the second-largest shareholder of Pinduoduo. The success of Pinduoduo also relies on the massive user base of WeChat platform for its expansion. The more people use it, the more economic value and network effects it generates. WeChat platform can be considered, to a certain extent, as infrastructure covering the entire China, resembling a super app[5][6]. Pinduoduo's ability to quickly acquire a large number of users also relies on Tencent's accumulated user base. According to Srnicek, this can be seen as a commercial activity of trading the attention of ordinary people (here referring to Tencent and Pinduoduo) among virtual capitalists, continuously dominating and exploiting users[1].

Although Pinduoduo's main business is similar to Taobao and JD.com's e-commerce platforms, a closer examination reveals that Pinduoduo actually functions more like an advertising company. According to Zheng, Pinduoduo often offers platform subsidies, conducts in-platform promotions, and benefits consumers to cultivate their awareness of low prices[7]. Pinduoduo utilizes low-price marketing and gamification measures to attempt to create a "Costco+Disney" comprehensive app[7]. Both gamification measures and in-platform casual games fundamentally involve the process of app digital hustling, where users are given tasks and app promotion is carried out using the traffic in

users' private social networks. For instance, Duo Duo Orchard, a casual game developed by Pinduoduo. It combines online farming game themes with real-world integration, creating a novel form of advertising marketing. Pinduoduo introduces users to this virtual planting game, promising players that after carefully "watering" and "fertilizing," the saplings will bear fruit. Once the fruits ripen, the platform will reward players with 1500g of real fruit and free shipping[7]. The game features of Duo Duo Orchard include being simple and easy to pick up, requiring minimal calculation and gaming skills, asynchronous game saving allowing players to exit or enter the game at any time. Players (here referring to users) only need to continuously complete tasks to earn virtual "drops" (also an in-game currency) for irrigation, allowing their virtual plants to grow continuously[7]. After completing tasks, players can obtain virtual currency drops that circulate in the game, helping their virtual plants grow, while also offering a "friends' assistance" feature. Users can visit their friends' spaces, tend to their virtual plants, help them water, or "steal drops." In the task section, users can choose to browse product pages for 60 seconds or watch live streams of recommended products to "earn" drop currency[7]. This is how Pinduoduo monetizes users' attention, selling the time spent and page views to meet the needs of advertisers. Therefore, Pinduoduo is tirelessly extracting the surplus online labor value of users, simply clicking the screen and completing tasks to earn drops for irrigation, obtaining circulating currency from the platform, which to some extent replicates the basic logic of capitalist exploitation of the lower class in real-life culture.

It should be noted that casual games, such as managing virtual farms online, have extensive social aspects, giving rise to various social interactions and allowing people from different generations to find resonance[8]. Mapping real-life farm activities requires occasional help from others to manage the farm effectively. Designers incorporate features in the modules such as inviting friends to help with weeding and watering, aiming to enhance the social attributes[8][9][10].

Park et al. and Wu also point out that casual games with virtual farm themes can to some extent alleviate mental stress and have a high addictive tendency[11][12]. Wu argues that most online game audiences do not have dedicated time settings to complete tasks and earn in-game currency[12]. Typically, users complete tasks during commuting, idle time at work, or leisure time. According to Srnicek, platform capitalism extracts more surplus labor value[1]. Although users appear to complete platform tasks in their personal time, it is essentially "online labor," and the rewards or compensation provided by the platform for such online labor are merely pop-up reminders displayed by a few lines of virtual code. This highlights the sophistication of the platform and the clever disguise of capital exploitation on the platform, exploiting more attention and time by utilizing rules.

3.2 Case Study Two: Douyin's Live Bullet Screen Interactive Games

Many researchers have studied Bullet Screen and discovered that it integrates a plethora of emotions, senses, and media, creating significant interactivity on screens and videos[13][14]. Many users have gradually become accustomed to using the bullet screen feature while watching live broadcasts, TV dramas, and movies, engaging in bullet screen exchanges with other online users at the same time. The bullet screen feature fosters a "pseudo-synchronicity" and a vibrant "virtual vitality," fulfilling users' desire for recognition and shared perspectives[13]. Many video websites in China, including Tencent Video, Youku Video, and Iqiyi Video, have successively developed features such as "viewership count" and bullet screen. Bullet screens signify interaction and have also become a new standard for quantifying the success of TV dramas or movies. More online discussions can attract more potential users. This is also a capital strategy used by platforms to attract users, where the sheer volume of bullet screens does not necessarily indicate content quality

but may result from online subcultural discussions or critiques. This is what is often hidden behind big numbers like "20 million" that the public does not see. Notably, the gamification of bullet screens is gaining significant user engagement and introducing new interactive methods in the live broadcasting domain.

Currently, a new form of interaction called Live Bullet Screen Interactive Games has emerged in China's Douyin app. This game is still in the exploratory phase, and Douyin only began allowing live bullet screen games in 2023. As for now, Douyin appears main four types Live Bullet Screen Interactive Games, despite the themes of the games are different, most of the games fall into the four categories. Bullet screen interactive games are a type of mini-game based on live streaming and bullet screen functions, transforming keywords from the audience's bullet screens during live streams into commands by custom rules, which are then mapped onto the live broadcast for interactive effects. The live room is no longer just about the broadcaster's output; the audience is not just passive spectators. By sending bullet screens, they actively participate in real-time live battles, enhancing consumption. Whether sending commands or giving gifts, the audience controls the action, significantly enhancing the interactivity and user engagement in the live room.

Although the modeling of bullet screen interactive games is rudimentary and the graphics are simple, these shortcomings seem trivial amidst waves of prop effects that carry a strong impact and display player IDs. Coupled with the skilled commentary and control of the game by the broadcasters, paying players achieve scores and rankings in the game, and receive immense satisfaction from the respectful addresses of the broadcasters. This new mode of interaction differs from merely watching broadcasters play games; it involves personal participation in the game, which can be understood as a process where the users in the live room play the game together. The gameplay is displayed on a limited screen and is also explained by the broadcasters. Here, the broadcaster has become a medium, conveying instructional support on how the game hopes the users will interact. Broadcasters can choose to show their faces or simply narrate the game scripts appearing on the screen with their voices. Players enter pre-programmed commands in the chat box, and after a network delay, corresponding game scripts are displayed, such as score increases, medal achievements, and territory upgrades, providing electronic feedback.

3.3 Case Study Three: WeChat Mini Game

McGloin et al. emphasized that the design of casual online games should focus on providing modules for collaboration and competition among friends, as playing games is not solely for social reasons[15]. The scores and accumulated honors displayed through the game indicate that users are also measuring their skills against their friends. In 2017, the super app WeChat launched WeChat Mini Games in its 6.6.1 version, quickly gaining user engagement. Popular mini-games like "Hop and Hop," "Marble Escape," and "Number Eliminator" have addicted many users. Several main reasons contribute to this phenomenon: firstly, mini-games are easy to access, requiring just a swipe on the user interface to activate the mini-program without needing a download; secondly, they can be played anytime, such as during commuting or waiting, providing a way to alleviate boredom; thirdly, the friend ranking mechanism significantly heightens the sense of competition and tension from peer pressure, especially when seeing a friend's rank surpass one's own, which motivates users to continually embark on new challenges to prove their capabilities.

The mechanisms of platform capitalism also offer this sort of benign tension, neither painful nor itchy. If interpreted from a serious perspective, such urgency and ranking are indeed a reflection of the law of the jungle. Only users with greater capabilities can top the friends' leaderboards. Once a sense of competition among users, or social friends, is established, the platform diminishes its presence, operating behind the scenes, enjoying the data generated from user interactions and

gameplay, and starts to invite advertisers who have long been waiting to feast on user attention. Under the deliberate manipulation of platform capitalism, the competition in social games among friends also plunges users into a state of exploitation. Van Dijck et al. also noted that under the platform's free business model, there are tyrannical terms hidden, agreeing to use the platform's services means consenting to surrender data, including personal information, activity data, and interaction data[2]. Even more ingenious is the likelihood that these blocks will become prime advertising real estate in the near future, with companies competing for text, iconography, or images that can be integrated into the game and broadcast to millions of users simultaneously as they gaze into the pointless, euphoric abyss.

3. Discussion

This article critically analyzes the methods of platform capitalism in China and the advantages and disadvantages of the digital economy. To some extent, platform capitalism has promoted the development and prosperity of the internet economy, pushed forward new technological advancements, and developed new labor and production relationships. However, platform capitalism still maintains monopolistic characteristics and a strong tendency to expand, aiming to keep users engaged longer on the platform, fueling more real-world desires, and extracting more of users' leisure time. In the future, more users may find themselves unable to disconnect electronically, experiencing longer online durations and losing more control over their data. The negative effects of platform capitalism also exploit this to concentrate wealth among a few and deepen the divide in distribution relations.

The article argues that enhancing media literacy education is a crucial way to resist platform capitalism. This includes education on data control and data security, as well as understanding the goals and methods of platform capitalism. By studying media and improving media literacy, individuals can better navigate the complex future media environment, find inner peace, and a clearer direction amidst the sweet deceits of platform capitalism.

4. Conclusions

This article critiques the gamification strategies employed by platform capitalism, predicting that future app designs will increasingly incorporate gamification to enhance interactions between users and between users and the platform. The objective of these platforms is to extract more data to solidify capital's dominance. Apps are also evolving towards more integrated designs with the ultimate goal of making users dependent on the platform. The platform is not merely an interface for leisure, communication, trading, and interaction. It also mediates the flow of social information, data, and capital. As digital technology shapes society, corresponding social norms are established, but oppression and exploitation are likely to persist in the virtual world.

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