

The User Stickiness Shaping Path of Virtual Reward Mechanisms in Social Applications

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Abstract

This article focuses on the shaping effect of virtual reward mechanisms in social applications on user stickiness. Firstly, the current development status of social applications and the significant importance of user stickiness were expounded. Then, the concept, types and characteristics of virtual reward mechanisms were analyzed. This paper deeply explores the specific paths by which the virtual reward mechanism shapes user stickiness through dimensions such as meeting users' psychological needs, stimulating users' social interaction, and guiding users' behavioral habits. At the same time, it analyzes the possible problems that may be faced in the implementation process of this mechanism and proposes corresponding optimization strategies, aiming to provide theoretical support and practical guidance for social applications to enhance user stickiness through the virtual reward mechanism.

Keywords: Social application; Virtual reward mechanism; User stickiness.

1. Introduction

Driven by the digital wave, social applications have become an indispensable part of People's Daily lives. From early instant messaging tools like QQ to today's feature-rich comprehensive social platforms such as wechat and Douyin, the forms and functions of social applications have been constantly evolving and expanding. ^[1] These applications not only meet people's basic social needs, but also cover multiple fields such as entertainment, information acquisition, and business communication, profoundly changing people's lifestyles and social patterns.

With the increasingly fierce competition in the social application market and the continuous rise in user acquisition costs, user stickiness has become a key indicator for measuring the success of social applications ^[2]. User stickiness refers to a user's willingness and loyalty to a certain product or service. High user stickiness means that users are more willing to use the application for a long time, bringing stable traffic and revenue to the application ^[3]. Therefore, how to enhance user stickiness has become an important challenge for social application developers.

Virtual reward mechanisms, as an effective means of user motivation, have gradually been widely applied in social applications. Virtual rewards refer to non-material rewards given to users in a virtual environment, such as points, MEDALS, levels, etc. ^[4] By rationally designing virtual rewards, users' enthusiasm for participation can be stimulated, their dependence and loyalty to the application can be enhanced, and thus user stickiness can be improved. However, at present, research on how virtual reward mechanisms in social applications shape user stickiness is still insufficient and further in-depth exploration is needed.

2. Literature Review

2.1 Research Related to Social Applications

In terms of functional design, research has found that the functional diversity and convenience of social applications are important factors in attracting users ^[5]. For instance, wechat not only features instant messaging but also integrates various functions such as payment, shopping, and official accounts, meeting users' diverse needs. In terms of user experience, good user experience can enhance user satisfaction and loyalty ^[6]. The interface design, operational smoothness, and information quality of social applications all affect the user experience. In terms of the structure of social networks, research focuses on node relationships and information dissemination mechanisms within social networks, etc. ^[7] Users in social applications form complex social networks by establishing social relationships, and information spreads and diffuses rapidly within these social networks.

2.2 Research on User Stickiness

User stickiness refers to a user's willingness and loyalty to continuously use a certain product or service. In the field of social applications, the influencing factors of user stickiness include social relationships, content quality, application performance, etc. Research shows that after users establish close social relationships with others, they are more inclined to use the social application for a long time. High-quality content can attract users to keep following and participating. Stable application performance provides users with a good experience and reduces user churn.

2.3 Research on Virtual Reward Mechanisms

Virtual rewards refer to non-material rewards given to users in a virtual environment, such as points, MEDALS, and levels. Virtual reward mechanisms have been widely applied in fields such as games and e-commerce, and related research mainly focuses on their impact on user behavior. Some studies have found that virtual rewards can stimulate users' motivation, promote their participation and continuous usage behavior. In social applications, the research on virtual reward mechanisms is still in its infancy, but it has already demonstrated its potential important role.

3. Overview of Virtual Reward Mechanisms in Social Applications

3.1 The Concept of Virtual Reward Mechanism

The virtual reward mechanism is a set of reward systems designed by social application developers to encourage users to participate in various activities within the application. By offering users virtual rewards such as virtual currency, special identifiers, and honorary titles, certain needs of users can be met, thereby guiding their behaviors and enhancing their engagement and loyalty.

3.2 Types of Virtual Rewards

Material virtual rewards include virtual currencies, virtual items, etc. Virtual currency can be used to purchase various virtual goods or services within the app, such as game props and personalized outfits. Virtual items have specific functions and appearances, which can enhance users' experience and image in applications.

Spiritual virtual rewards such as MEDALS, grades, and honorary titles, etc. These rewards mainly meet users' spiritual needs, such as a sense of achievement, identity and belonging. Obtaining MEDALS or high levels can make users feel that they have a certain status and value in the application, and gain recognition and respect from other users.

Social virtual rewards such as friend referral rewards and social interaction rewards, etc. This type of reward is designed to promote social interaction among users, encouraging them to invite friends to join the app and have more communication and cooperation with them. Through social virtual rewards, users' social circles can be expanded, and the connection and stickiness among users can be enhanced.

3.3 Characteristics of the Virtual Reward Mechanism

Virtual rewards do not exist in the real world and only have virtual value. They are created by developers through code and algorithms, and users can only use and display them in specific social application environments. Developers can design different types of virtual rewards and reward rules based on the characteristics of the application and the target user group. For instance, for the younger user group, more fashionable and personalized virtual rewards can be designed. For business social applications, rewards related to professional image can be designed. Virtual rewards can stimulate users' motivation and prompt them to take action. To obtain virtual rewards, users will actively participate in various activities within the app, such as completing tasks, Posting content, and interacting with other users.

4. The Path by Which Virtual Reward Mechanisms Shape User Stickiness

4.1 Meet Users' Psychological Needs and Enhance Emotional Connections

Levels, MEDALS and other items in virtual rewards can serve as symbols of users' abilities and achievements. When users complete tasks through hard work and improve their performance in the application, they receive corresponding level upgrades or medal rewards, which will give them a strong sense of achievement. This sense of achievement will further stimulate users' enthusiasm and initiative, prompting them to constantly challenge higher goals, thereby increasing their time spent and usage frequency in the application.

Virtual rewards in social applications can serve as a social signal to showcase one's characteristics and advantages to other users. When users receive unique honorary titles or special identifiers, they will attract the attention and recognition of

other users, thereby satisfying their need for a sense of identity. For instance, in some knowledge-sharing social apps, users earn the title of "Knowledge Expert" by answering questions and sharing high-quality content. This will earn the respect and trust of other users, thereby enhancing their sense of belonging and loyalty to the app.

Developers can design some virtual rewards that are mysterious and exploratory to stimulate users' curiosity. For instance, set hidden reward tasks or randomly dropped virtual items to enable users to constantly discover new surprises during the exploration process. This curiosity will drive users to keep using the application to uncover more secrets of rewards, thereby increasing user stickiness.

4.2 Stimulate Users' Social Interaction and Expand Social Networks

By designing cooperative tasks and competitive activities and providing corresponding virtual rewards, interaction among users can be stimulated. In cooperative tasks, users need to complete the goals together with other users to obtain rewards, which helps cultivate users' teamwork spirit and social skills. In competitive activities, users will actively showcase their strength and advantages in order to compete for rankings and rewards, thereby stimulating their competitive awareness. For instance, in some team-based competitive social games, players can earn team rewards by winning matches through teamwork. Meanwhile, an individual's performance in the game will also affect their ranking and rewards. This cooperative and competitive mechanism can attract users to continuously participate in the game and enhance social connections among users.

Social virtual rewards can motivate users to invite friends to join the application. When a user successfully invites a friend to register and use the application, both parties can receive certain rewards, such as virtual currency and special items. This reward mechanism not only can expand the user base of the application, but also enables existing users to establish social relationships with new users, further expanding the social network of users. When inviting friends, users will introduce the features and advantages of the application to them, thereby increasing their interest and recognition of the application and creating a good word-of-mouth effect.

Virtual rewards can serve as a medium for emotional communication among users. Users can convey their emotions to their friends by giving virtual gifts, expressing blessings and other means. For instance, on some social platforms, users can give virtual cakes or flowers to their friends on their birthdays to express their blessings and care. This kind of emotional communication can deepen the friendship among users, enhance their emotional dependence on social applications, and thereby increase user stickiness.

4.3 Guide Users' Behavioral Habits and Cultivate Usage Inertia

Developers can design a series of daily tasks, such as checking in, browsing content, Posting updates, etc., and give corresponding virtual rewards. In order to obtain rewards, users will develop the habit of using the application every day, thus forming a usage inertia. For instance, some social apps offer rewards for consecutive check-ins. The more consecutive days a user checks in, the more generous the reward they will receive. This reward mechanism can motivate users to persist in using the application and prevent them from leaving due to forgetting or lack of motivation.

Virtual rewards can serve as timely feedback on user behavior. When users complete a certain action or achieve a certain goal, corresponding rewards should be given immediately to make users feel that their actions have been recognized and rewarded. This timely feedback can enhance the user's behavioral motivation and prompt them to continue repeating the behavior. For instance, after a user posts a high-quality dynamic, the app immediately offers a certain amount of points as a reward and displays it below the dynamic, allowing the user to directly see their gains and thereby encouraging them to continue creating and sharing.

In addition to daily task rewards, developers can also set some long-term goals and achievement systems and offer generous virtual rewards. To achieve these long-term goals, users will formulate corresponding plans and strategies, continuously use the application and keep making efforts. For instance, some social applications have set up a user growth system. Users can level up by accumulating experience points, and each level has corresponding privileges and rewards. In order to reach a higher level, users will persist in using the application for a long time and actively participate in various activities, thereby cultivating stable usage habits.

5. Possible Problems and Countermeasures in the Implementation of the Virtual Reward Mechanism

5.1 Existing Problems

If the type, quantity and difficulty of obtaining virtual rewards are not reasonably designed, it may cause users to lose interest in the rewards or feel that they are unfair. For instance, if rewards are too easy to obtain, users will feel that there is a lack of challenge. Rewards are too hard to obtain, and users may give up due to discouragement. Furthermore, the single type of rewards cannot meet the diverse needs of users.

Some users may resort to improper means to obtain virtual rewards, such as using cheats or boosting traffic. This will not only undermine the fairness of the application and its ecological environment, but also affect the experience of other users and reduce their trust in the application.

As the number of users increases and the demand for rewards grows, the cost of virtual rewards will also keep rising. If developers fail to control the reward cost reasonably, it may lead to a decline in the economic benefits of the application and even affect its sustainable development.

5.2 Countermeasures and Suggestions

Developers should design diverse types of virtual rewards based on users' demands and behavioral characteristics, and reasonably set the difficulty and quantity of obtaining rewards. Through market research and user feedback, we can understand users' preferences for different types of rewards. Based on users' participation and contribution levels, we can dynamically adjust the reward rules to ensure the attractiveness and fairness of the rewards.

A sound monitoring mechanism should be established to promptly detect and handle users' improper behaviors. Adopt technical means, such as data encryption and behavior analysis, to prevent the occurrence of behaviors like cheats and traffic manipulation. At the same time, strengthen the publicity and education for users, guide them to abide by the application rules, and jointly maintain a good application environment.

Developers can enhance the utilization efficiency of rewards and reduce the cost of rewards by optimizing the reward system. For instance, by adopting the circulation mechanism of virtual currency and allowing it to be recycled within applications, the actual cost expenditure can be reduced. In addition, it is also possible to cooperate with merchants and obtain additional income through advertising placement, joint promotion and other means to cover the cost of rewards.

6. Conclusion

Virtual reward mechanisms play a significant role in shaping user stickiness in social applications. By meeting users' psychological needs, stimulating their social interaction and guiding their behavioral habits, virtual rewards can enhance users' emotional connection with the application, expand their social networks and cultivate usage inertia, thereby increasing user stickiness. However, during the implementation of the virtual reward mechanism, problems such as unreasonable reward design, risk of reward abuse, and excessively high reward costs may also arise. Developers should optimize reward design, enhance supervision and prevention, and control reward costs to fully leverage the advantages of virtual reward mechanisms and achieve the sustainable development of social applications. In the future, with the continuous advancement of technology and the constant changes in user demands, virtual reward mechanisms will also be constantly innovated and improved, providing a stronger impetus for the development of social applications.

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