Analysis of the Retention Mechanism of Knowledge Sharing Platforms - Taking Zhihu Platform as an Example

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Abstract. With the rapid development of the Internet era, it is difficult to distinguish the truth from the falsehood of the massive amount of online information. Due to the improvement of people's material level, spiritual needs and other aspects, the users' desire for knowledge has become stronger and stronger, and knowledge sharing platforms have emerged. This paper aims to deeply analyse the retention mechanism of knowledge sharing platforms to reveal the success factors of knowledge sharing platforms. Based on existing research, this paper discusses the Zhihu platform from multiple dimensions, such as high-quality content, incentive mechanism, speech control, and pushing mechanism. This paper concludes that Zhihu continuously improves the quality of knowledge through cooperation, diversified forms, and technological innovation. User experience is guaranteed through user reach and incentive mechanisms. Regarding speech control, Zhihu balances freedom of speech and legal regulations to ensure the smooth operation of the platform. In the future, this kind of knowledge sharing platform will introduce more science and technology to improve user stickiness. Through a deep understanding of Zhihu's operation mechanism, this paper helps similar platforms understand the leaders' success factors. It provides opinions and improvement experiences for the development of similar platforms.

1 Introduction

The rapid development of Internet technology has led to a trend of fragmentation. In this way, information is disseminated. In the rapid expansion of information content on the Internet, people's demand for information screening is increasing, and their thirst for knowledge sharing is growing. In such a situation, knowledge-sharing platforms continue rising. Such platforms achieve the purpose of solving problems and understanding the required knowledge for users by exchanging and sharing information, providing users with paid knowledge products and services, and improving the efficiency of information screening. However, with the increasing demand for knowledge payment products and services, many knowledge sharing platforms have withdrawn from the market due to the lack of advantages in the stimulating market competition, while Zhihu has continued to develop and stand out among a number of similar platforms.

Zhihu platform is currently the leader among knowledge sharing platforms. It attracts and gathers a large number of original creators to share relevant knowledge for people in different industries with different needs and puts forward suggestions for solving problems in combination with experience. Zhihu was officially established in 2011. At the beginning of its foundation, Zhihu started with small but fine professional Q&A, providing knowledge needs for some users with higher education. After listing in the United States in 2021, it has continuously launched new knowledge payment services to address the problem of redundant information on the Internet. Through cooperation and innovation, improving the platform form and introducing new technology, Zhihu provides users with more high-quality and specialized content. To make users stay on the platform, Zhihu has perfected a variety of retention mechanisms such as reach, incentives, speech control, etc., resulting in a platform retention rate of over 80%. In its Q3 2023 earnings report, Zhihu's total revenue for the third quarter was 1.022 billion yuan, an increase of 12.1% year-on-year from the third quarter of 2022, a figure that continues to show an upward trend shortly.

Zhihu platform has the highest popularity among knowledge-sharing platforms, with a user retention rate of more than 80%, a large user base, and attracts a large number of new users to join the platform every year, with a strong realisation ability, and enhances the platform's vitality under the continuous innovation and integration, and gradually gains a firm foothold among the many knowledge sharing platforms and achieves a certain degree of success.

Based on this, this paper mainly analyses the reasons for the success of Zhihu platform in terms of its success factors and retention mechanism. It then analyses the

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platform's high-quality content and retention, incentives and speech control mechanisms and puts forward relevant suggestions for knowledge sharing platforms of the same type. The research in this paper can deeply analyse the reasons for the success of Zhihu platform and the operation mechanism of user retention within the platform, and help other knowledge-sharing platforms find successful methods and learn the development and improvement experience.

2 Analysis of the success factors of Zhihu platform

2.1. Cooperation and Push Streams

Zhihu platform by inviting more original creators to create and push streams of high quality on the platform. The platform opens topics for original creators, pushes interested users, and rewards the authors when their creations reach a certain number of likes. At the same time, it cooperates with experts online and invites them to join the platform to conduct online lectures and, knowledge sharing, etc. The popularity of experts and experts attracts more users to pay attention to the activities and join the Zhihu platform.

Zhihu's cooperation with the brand group combines online and offline approaches. On the one hand, the platform promotes the campaign online to let users know about it and makes use of the brand group's advertisement to publicize the content. On the other hand, face-to-face exchanges were held offline to bring users closer to the platform and the brand group, and to attract new users interested in the campaign. Without realizing it, participants can immerse themselves in the atmosphere created by the platform, enabling the platform to establish a brand image of high-quality content.

2.2. Diversified forms

In recent years, after experiencing the tide of pan-entertainment, Zhihu has chosen to innovate and integrate, and has also begun to add different elements such as video and live broadcasting to introduce new content, develop new functions and launch more knowledge payment products. The live broadcast itself is a way of content production; the debate topic of live broadcast has more discussion value, which will trigger the secondary creation of content, and the real-time discussion in live broadcast is more real-time and efficient than the traditional Q&A method.

Zhihu platform has cooperated with various group brands to expand business content in e-commerce and finance, carry out business-related courses, and launch course-training knowledge-paying products to attract users with different knowledge needs from other industries to join the platform.

At the same time, as Zhihu's user base sinks, the range of users on Zhihu's platform is expanding, and users have different content preferences. In order to meet the needs of these users to have fun and solve life problems, Zhihu has launched paid knowledge based on entertainment and life content preferred by these users so as to meet the personalized needs of these new users and attract more users.

2.3. Technological innovation

With the development of artificial technology in recent years, Zhihu platform has added artificial intelligence technology to its promotion, providing users with intelligent recommendations, making it easier for users to find content of interest and placing advertisements that may interest them. At the same time, Zhihu platform uses AR technology to enable users to experience the activity scene, enter the scene content as if they were there, learn faster and more immersively on the platform, and get a fresher and more intuitive learning experience.

3 Retention mechanisms

User retention mainly refers to the fact that after a period of time, users still use the products or services they once used [1]. By analysing the core reasons for user retention on the Zhihu platform through the four main retention mechanisms of user reach, incentives, speech control, and filtering recommendations, people can better understand the reasons for the high retention rate on the Zhihu platform.

3.1 User reach

The fact that a user can learn about information is called reach [2]. User reach refers to the way in which information is exposed to users so as to meet certain expectations. The Zhihu platform is based on user reach, supplemented by WeChat public number reach, so that the Zhihu platform achieves a highly efficient retention mechanism.

User reach is the main user retention method used by the Zhihu platform(Fig.1). The Zhihu platform mainly focuses on push reach, and by pushing the platform content, users are awakened to use the platform's paid knowledge products again, so that they are familiar with the platform's paid products without realising it and develop the habit of using them. At the same time, through user reach, users are tagged in the background according to their preferred content, and the content they are interested in is pushed according to the tags, which makes it more likely for users to log in to the Zhihu platform and generate retention through push [3].

At the same time, the Zhihu platform also merges the retention method of WeChat public number reach. Like push reach, Zhihu pushes content of interest to users through WeChat public number, leading to user retention.
3.2 Incentives

Zhihu, as a platform for knowledge sharing and exchange, provides multiple incentives for knowledge sharing and community building, both non-material and material, to achieve psychological and spiritual satisfaction. The aim is to stimulate users to share high-quality content and build a highly viscous community.

3.2.1 Content creation incentives

Zhihu uses incentives such as recommendations, leaderboards and medals to encourage users to share high-quality content (Fig. 2). After users post content, the platform will conduct strict audits and agree to the display of the content, and users will have some likes, favorites, comments and other behavior after browsing. Such behaviors will be regarded by the platform as a positive response from the user to the content, further affecting the subsequent recommendation and ranking of the content. For content with a high number of views, the platform will recognize the content as high-quality content and make weighted recommendations, thus obtaining a higher number of clicks. At the same time, it will also show the high heat content on the chart of the day. Content publishers will be psychologically inspired to create more in-depth content and share their knowledge and experience more actively, arousing their self-confidence and sense of honor. Effective motivation can stimulate people's potential and awaken their creativity [4].

3.2.2 Community Motivation

In addition to individual-level incentives, Zhihu also implements incentives by establishing communities further to promote participation in discussions and contribution of content. Zhihu categorises users according to their interests and concerns, and establishes different communities. Users can join a certain community, communicate with other users in the virtual organisation, and create an exclusive label belonging to that community.

The platform grants users non-material spiritual and psychological rewards such as V certification or creation medals based on their contributions and performance. The platform gives users a higher status in the community, and their content is authoritative and recognised, which motivates them to participate better and improve the quality of the community. In addition, Zhihu also set up "community manager" and other titles to select responsible users to participate in community management tasks, encouraging users to maintain and use the community. Users find a sense of belonging in the community, get the recognition of other members, satisfy the psychological needs and enhance the emotional dependence on the community [5], prompting the formation of a good environment on the platform.

3.2.3 Earnings incentives

The Zhihu platform gives creators the right to charge for their original knowledge. Knowledge sharing users can set fees to read or buy the content they publish, and the platform will internally push the content precisely to the users who may be interested in consuming the knowledge, resulting in the behaviour of paying for expertise. Based on the contradiction between the growing demand for knowledge and the inefficiency of knowledge acquisition, there is a tendency to pay for knowledge [6]. Creators share more professional and high-quality content according to the preference of
content consumers, and based on the revenue mechanism of the platform, knowledge can be monetized.

Advertising revenue is another part of the creator's earnings, where the brand and the user co-create content. The advertisers will evaluate the quality, readership, likes and other dimensions of the user's content and give him or her a corresponding reward. This incentive has attracted more brands to join the platform and enhanced the content diversity as well as professionalism of the Zhihu platform. Content creators will be more active in sharing and increasing their readership and influence after receiving rewards. The increase in content richness also attracts more people to join the platform, and users can access a wider range and authority of content on the platform.

3.2.4 Other incentives

The Zhihu platform regularly organises offline knowledge-sharing activities, inviting experts and scholars from various fields to share their professional knowledge and experience. Users can have an in-depth communication with the experienced people. Although Zhihu has opened comments, private messages and other ways to build a communication platform, but it is difficult to avoid the inaccurate expression of information, news lag and other issues affecting the efficiency of knowledge acquisition, offline activities is a more direct way of communication for knowledge consumers. The platform will also give appropriate rewards to users who participate in the activities, such as coupons for courses, books, etc. or platform membership. It strongly promotes the sharing and dissemination of knowledge, increases users' understanding of the platform, and then enhances the usage rate.

3.3 Speech control of Zhihu content

As a content sharing community, Zhihu's platform is characterised by "open discussion". Therefore, on Zhihu, everyone has the right to express his or her own opinions and discuss issues, and there is freedom of speech on Zhihu. However, in the context of "public discussion", in order to protect the freedom of expression from being abused, there are some restrictions on the expression of opinions, views and discussion of issues on Zhihu [7].

3.3.1 Openness of expression

On Zhihu, users are free to express their opinions, and they can add some of their own views. This not only allows users to express their ideas freely, but also allows them to gain more knowledge and information so that they can understand the world better.

In addition, although users are free to express their views, they need to comply with the relevant regulations so as to ensure order on the platform. Therefore, on Zhihu, the remarks made by users are strictly vetted before they are posted. However, in this case, some users will intentionally leave some striking remarks or opinions to arouse discussion. For example, when browsing online articles or knowledge sharing platforms, many people will deliberately leave some impressive or contradictory comments. They can not only express their own views but also make their own comments to attract the attention of others so that they can get more knowledge and information. That's why there are a lot of "others" answering questions on Zhihu!

On the Zhihu platform, many questions are answered anonymously, mainly to ensure the openness and transparency of the platform. Anonymity can make people feel more authentic and relaxed when answering questions. Like on Zhihu, you are free to express your opinion, making it possible for many people to speak freely [8].

3.3.2 Guarantees of the legitimacy of expression

Zhihu, as a content sharing community, encourages users to express their views and opinions freely, but has also set up some restrictions and review mechanisms to maintain the platform's order. Freedom of speech also requires attention to the legality of speech. When expressing their views and opinions and discussing issues, Zhihu users should base their opinions on objective facts and should not make personal attacks on others. Zhihu users should respect others and should not make any insulting remarks. In addition, Zhihu users should abide by community norms when making comments and not make discriminatory or insulting remarks or incite hatred.

If a user violates the community rules, the Zhihu platform has the right to deal with him/her accordingly. If a user violates the relevant provisions of the Zhihu community norms, the Zhihu platform has the right to punish the user according to the community rules. For example, personal attacks on others are prohibited or will be deleted, banned, or blocked.

There is a lot of intellectual property infringement on Zhihu. For example, there are some "plagiarised" replies, whose content is the same or similar to the original work, and which are reproduced without the original author's consent. In addition, some people post content that infringes on other people's copyrights, such as quoting other people's works for commercial use [9].

3.4 The reflection of the quality of Zhihu Q&A content

As the quality of Zhihu's Q&A content has improved, many high-quality questions have begun to appear. In recent months, Zhihu began introducing a new feature called "Recommendations", which allows users to get more information by recommending answers, videos and articles. Obviously, this feature is designed to further increase user interest, improve content quality through algorithmic recommendations, and thus increase the value of the content. However, as the quality of Zhihu's Q&A content improves, the recommendation system also faces some new problems.
3.4.1 Content Screening

The Featured function mainly selects some high-quality questions in Zhihu for users' reference. Therefore, the recommendation function is very different from the Featured function. Firstly, it differs from the Featured function and will not influence users' selection and recommendation. Secondly, it will only appear in Zhihu for a while. In the Featured function, users can select questions based on their preferences, interests, and expertise.

3.4.2 Mechanisms for attention

In order to let more users know the content they are interested in, Zhihu has introduced the following mechanism, which means following other people's content(Fig.3). Compared with the Featured feature, the Follow feature has no substantial changes. Users can only view the answers and articles posted by the people they follow and cannot directly view all the answers and articles in the Featured list [10].

While this feature changes the focus on content quality, it has little effect on content quality. After all, if you want to share something you're interested in with more people, you still need to find it yourself. When you actively look for some questions, you'll find those quality answers aren't easy. As a result, you may miss out on a lot of high-quality content when you passively wait for others to find the answers.

Fig. 3. Flow chart of the focus mechanism of Zhihu platform(Photo/Picture credit : Original)

4 Suggestions and prospects

In recent years, with the popularity and development of the Internet and the improvement of people's material and spiritual level, knowledge-sharing platforms have emerged in large numbers. Among them, Zhihu, Himalaya and Get are knowledge-sharing platforms favored by users. These platforms all focus on spreading knowledge and sharing experiences, but each has its own characteristics in content presentation, user groups and business models. Zhihu stands out among the many platforms, and its professionalism and richness have received positive feedback from users. Himalaya focuses on outputting content in the form of audio, and its content diversity is relatively lacking compared to that of Zhihu. Get focuses on paid knowledge sharing and provides one-stop learning services, while a large amount of Zhihu's content is free, which makes the Get platform lose some competitiveness.

Therefore, this paper suggests that Zhihu should encourage users to create high-quality content and share experiences, and improve incentive mechanisms, such as incentives for high-quality content, creator certification, etc., so as to enhance user participation and content quality. At the same time, enrich the form of content creation to meet the personalised needs of different users. Optimise the design of the platform page to enhance the user experience, so that people from more fields can quickly master the use of it. Enhance community interaction, such as forum Q&A and comment area interaction, to improve user stickiness and find a sense of belonging in the community. Introduce more innovative boards, such as live broadcasts, online discussions, and other real-time interactions, so that knowledge and experience transfer in a more diverse form. Update the profit model. Despite Zhihu's current operation is not bad, but the platform revenue is still negative. Therefore, the platform should improve the user's personalised service, form the habit of paying for knowledge, cooperate with brand advertising, release related peripheral products and so on. At the same time, it is important to avoid excessive commercialisation affecting the user experience and cultivate users' willingness to
consume knowledge actively rather than passively. Invest in technology research and development, increase supervision, and improve the stability and security of platform operation. User privacy should also be given high priority to ensure user information security and copyright protection of creative content.

With the development of Internet science and technology, personalised recommendation of knowledge sharing and regulation of content can be achieved based on AI application technology. Personalised recommendation systems can use more accurate big data algorithms to provide users with more customised content based on their interests and usage habits. In addition, users can use AI technology to assist in the creation and improve the professionalism and richness of content. VR/AR technology, on the other hand, can provide users with interesting ways of acquiring knowledge, using innovative means to make users accept knowledge and increase the frequency of users logging into the platform. In the future, the knowledge sharing platform will expand a wider range of knowledge and carry out in-depth cooperation with education, business, healthcare, science and technology. Meanwhile, as people's demand for knowledge grows, knowledge-sharing platforms will develop more widely, promoting social development and human progress.

5 Conclusion

This paper mainly analyses the development status of today's knowledge sharing platforms, and takes Zhihu as an example to analyse the retention mechanism of its platform.

This paper firstly analyses the successful cases of Zhihu platform and finds that Zhihu platform has been able to create and push the stream with high quality by inviting more original creators on the platform. In addition, the platform has a diversified model, adding different elements, introducing new content, developing new functions, and launching more knowledge payment products. At the same time, Zhihu strengthens its technological innovation and uses AR technology to enable users to learn faster and more immersively on the platform to have a fresher and more intuitive learning experience.

This paper then analyses its retention mechanism and gets the platform through the user reach mechanism information through some ways to be contacted by the user so as to reach a certain expectation, and at the same time merged with the WeChat public number to reach the retention way. Zhihu through content creation incentives, community incentives, revenue incentives, etc., and in order to ensure the openness of the speech at the same time focus on the control of the speech, and from the content control and attention to the mechanism of the two aspects of the research platform on the characteristics of the content presented.

The advantages of the Zhihu platform, such as its diverse forms, pursuit of innovation, and freedom of speech, also suggest that it should avoid excessive commercialisation that affects the sense of user experience, and cultivate users' willingness to actively consume knowledge instead of passively consuming it. Invest in technology research and development, increase supervision, and improve the stability and security of platform operation. The part of user privacy should also be given high priority to ensure the security of user information, copyright protection of creative content and other opinions and suggestions.

The research in this paper reveals that multi-dimensional enhancement of user experience is the key for platforms to achieve user retention. As a knowledge sharing platform, the quality of content, the platform's management mechanism, and the communication of information are factors to be considered in the operation of the platform. Zhihu platform makes use of its unique management method, users send out the content to other users to accept the content, each link has professional control, users get a better sense of experience, so as to achieve a high retention rate. At present, Zhihu platform revenue is still negative. Still, it is narrower than before, and how to enhance the realisation is the goal of the future development of the platform. In the future, this paper can further analyse the data processing from the perspectives of the number of specific users' retention and the number of users' attention, and further understand the users' and the public's views on the Zhihu platform through questionnaire research.

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