Content Operations in Information Feed Products: A Case Study of Tencent Kandian (Postprint)

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Abstract

Since the launch of Toutiao in 2012, information feed products have proliferated, with content operations playing an indispensable role in their development. This paper takes Tencent Kandian as a case study, providing a detailed analysis of the product operation system from several perspectives, including the internal recommendation system, creator-facing operation system, and reader-facing operation system.

Full Text

Preamble

Title: Research on Content Operations of Information Flow Products: A Case Study of Tencent Kandian
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Abstract: Since the launch of Toutiao in 2012, information flow products have proliferated, with content operations playing a crucial role in their development. This paper examines Tencent Kandian as a case study, analyzing its product operation system from three perspectives: internal recommendation mechanisms, creator-facing operations, and reader-facing operations.

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mation Flow Products: A Case Study of Tencent Kandian[J]. China Media Technology, 2021(09):126-128.

Information flow products have now permeated every corner of the internet ecosystem. Users open Toutiao to check major events and breaking news, consult Dianping or Xiaohongshu for leisure recommendations, explore entertaining videos on Douyin and Kuaishou, and turn to Zhihu for professional information. Platforms define users through algorithms and deliver customized information directly to them, transforming these services from simple news aggregators into media through which users perceive the external world. This process requires not only algorithmic technical support but also manual operations to better connect content, creators, and users. This paper systematically analyzes the operations of information flow products.

1. Introduction to Information Flow Products

During the Web 1.0 and 2.0 eras, users relied on categories and navigation to search for information on portal websites. After search engines rose to prominence, users sought content through keyword searches. Later, social media emerged, enabling users to subscribe to and discover content of interest. With technological advances and continuous product development, algorithm-driven information recommendation products gradually entered mainstream use. In 2012, the information flow product "Toutiao" was launched and became a market leader, prompting major companies to enter this 赛道. Information flow products have since evolved and iterated continuously.

A basic information flow product comprises three components: content, user, and strategy. The content component includes content production, content understanding, and content processing. The user component primarily involves user profiling and segmentation. The strategy component mainly encompasses recall/recommendation strategies, distribution strategies, and ecosystem strategies. Content production forms the foundation of content-based products. UGC platforms generate content through several channels: in-house creators publishing on the platform, contracted media and MCN organizations providing content based on their specialties, and platform crawling of content that matches the platform' s tone. The proportion of these sources varies across different development stages of information flow products. Mature platforms have established comprehensive creator lifecycle management and incentive systems to promote creator retention and vitality, ensuring sustainable platform growth.

Content understanding involves tagging content with appropriate labels. During content processing, uploaded material undergoes multiple review and filtering stages before distribution, with low-quality, plagiarized, or inappropriate content being filtered out. The purpose of these steps is to enhance recommendation efficiency within the system and improve content-user matching. In the user understanding component, demographic characteristics, device usage, interaction

behaviors, and interest features are all recorded by the system. Each user action generates data that enables more precise positioning of user media consumption habits, thereby pushing the most needed information to users and improving content conversion efficiency.

The system employs personalized recommendation strategies. Algorithmically, recommendations are made based on massive data through multi-dimensional features of both content and users. Additionally, on top of the algorithmic foundation, manual weighting can be applied to content distribution to allocate traffic among creators, thereby improving traffic utilization efficiency and content quality. During platform cold start phases, operational activities and internal community guidance can be implemented to ensure healthy platform operation.

2. Tencent Kandian Strategy and User Profile Analysis

2.1 Leveraging Social Platforms Rather Than Imitating Toutiao

Since the "930 restructuring" in 2018, Tencent has heavily invested in information flow products, though attempts to compete with Toutiao by imitating its approach proved unsuccessful. The agility and execution advantages of startups contrasted sharply with Tencent's internal horse-racing mechanism in this 赛道. In November 2019, Tencent announced the establishment of the new "Tencent Kandian" brand, consolidating six existing products: QQ Kandian, QQ Browser Kandian, Kuaibao, WeChat Kandian Mini Program, Kandian Live, and Kandian Video App. This consolidation aimed to compete in the information flow market with a unified approach.

The "930 restructuring" integrated content businesses for information flow, but the Kandian brand represented a different strategic consideration. By bringing video, live streaming, and mini-program products under one business line, Tencent could establish information flow as a pillar of advertising revenue. Yin Yu, Tencent's vice president in charge of information flow products, stated that such products should be "as close to users as possible." Rather than being a standalone app, Tencent Kandian functions as an information flow service distributed across various vertical apps. QQ Kandian excels in algorithmic and social relationship chain distribution, QQ Browser Kandian provides content services integrated with browser search, and Kuaibao operates as a dedicated app that helps users focus on Kandian content while leveraging experience in cooperating with authoritative media and timely news. The existing user bases of QQ Kandian and QQ Browser form a massive daily active user foundation, ensuring user activity for Tencent Kandian. By Q1 2020, Tencent Kandian had reached 240 million daily active users consuming 9.6 billion pieces of content daily. In the six months prior to this data release, creators with over 10,000 followers increased 5.8-fold, those with over one million followers increased 16-fold, and 8,255 creators earned monthly incomes exceeding 10,000 RMB [1].

2.2 Tencent Kandian User Profiles and Consumption Preferences

Analyzing Tencent Kandian' s operational strategies requires understanding its user base. Tencent Kandian comprises three products: QQ Kandian, QQ Browser (hereinafter "Browser"), and Kandian Kuaibao (hereinafter "Kuaibao"). Gender distribution is relatively balanced across the three, though Browser and Kuaibao have a higher male proportion at 65%. Age distribution varies significantly: QQ Kandian users are younger, with 50% aged 12-22 and 30% aged 25-40; Browser and Kuaibao users are concentrated in the 25+ age group, with 30-40-year-olds forming the core user base. Overall, Browser and Kuaibao users are older, with Kuaibao having the oldest demographic.

In terms of education, all three products primarily serve high school and university students, who account for 50% of total users. QQ Kandian has a higher proportion of primary and middle school students compared to the other two platforms, while Kuaibao has the highest number of doctoral users. Overall, QQ Kandian users have the lowest education level, Browser users are intermediate, and Kuaibao users have the highest education level. Geographically, over one-third of Kandian users are concentrated in second-tier cities, with third- and fourth-tier cities combined accounting for approximately 40% and first-tier cities representing less than 10%. QQ Kandian has higher penetration in lower-tier cities, while Browser and Kuaibao have greater distribution in higher-tier cities [2].

Regarding content consumption preferences, QQ Kandian users favor gaming, TV dramas, lifestyle, and entertainment content, which account for over 50% of total consumption. Browser users primarily consume entertainment, lifestyle, TV dramas, and society-oriented content, showing more interest in lifestyle and social topics and less in gaming, with relatively balanced consumption across categories. Kuaibao users have similar preferences to Browser users but show stronger preference for lifestyle and entertainment content.

3. Tencent Kandian Operational Strategies

Information flow content relies not purely on algorithmic recommendations; manual operations constitute a crucial component. Algorithms and human operators each have distinct strengths: algorithms excel at personalized matching of user interests and long-tail recommendations for niche content, while manual operations are superior in judging news value, predicting trending topics, and responding to breaking events.

3.1 Reader-Facing Operations

Content must be sufficiently attractive to retain users, requiring precise algorithms that accurately match recommendations to user preferences. The system defines users through content consumption, attaching various tags to each user. Every user action generates data that enables more refined positioning of media

consumption habits. The system distinguishes user groups through similar tags, blocks disliked content through negative feedback, and recommends preferred creators and content through positive feedback. For example, if User A frequently shares, comments on, and likes financial content, the system tags them as interested in finance and continues recommending financial content. As User A clicks more financial content, the weight of this tag increases, resulting in more financial recommendations. If User A' s peer group prefers technology content, the system will assume User B, who also likes financial content, may like technology content as well.

While optimizing recommendation algorithms, the system performs deduplication of similar content to avoid user 反感 caused by repetition. It provides trending news collections in appropriate contexts, improves column recommendation mechanisms, and stimulates commenting through topical content to increase engagement, thereby promoting user login. The system retains user reading preferences to prevent data loss when users switch devices. It also pushes trending content beyond users' core interests at appropriate times and scenarios to avoid "information cocoons" caused by personalized recommendation algorithms and to enhance user freshness with the product.

3.2 Creator-Facing Operations

For content creators, core concerns include content production, platform traffic acquisition, fan relationship maintenance, and monetization. Understanding the creator-facing operation system requires familiarity with how Kandian' s system comprehends content. First, the system uses AI algorithms to accurately classify content and apply appropriate tags. The platform has a three-level classification system for all content. Taking finance as a first-level category, second-level categories include financial figures, corporate news, digital currency, stocks, investment, funds, and macroeconomics, while third-level categories might be Finance → Digital Currency → Bitcoin.

After creators upload content, it undergoes a "publish-review-tag-recommend" process. Machines score content after identification, and after passing quality and security review processes in the Penguin Account and Kandian internal systems, it is distributed to users who like the author and content. High-quality content receives greater distribution. From both algorithmic and manual operation perspectives, high-quality, original content is more likely to obtain high traffic. The review process includes machine and manual review, filtering out illegal, pornographic, clickbait, and rumor content. Low-quality content such as plagiarized material is penalized and not distributed, with accounts being downgraded. Penalized accounts face stricter review processes for subsequent content. After passing review, content is classified, tagged, and enters the recommendation phase.

3.2.1 Content Recommendation System The system allocates cold-start traffic to each piece of content for testing. More complete content playback

results in better system evaluation, and content with strong interaction data receives expanded exposure, while underperforming content is eliminated by the system. Viral content with millions of views undergoes countless cycles of this process to survive. High-performing creators and content exhibit characteristics such as high account level, high content quality scores, high CTR, high effective video play rates, and high completion rates.

[Figure 1: see original paper] Content Recommendation Process for 1 Million Traffic

3.2.2 Algorithmic Weight: UBS V Certification Kandian platform offers official interest certification for individual creators with certain follower bases who produce high-quality original content in specific fields. Professional identity certification is provided for authors meeting certain occupational qualifications, enhancing content authority and professionalism. Beyond interest and professional certifications, Kandian also offers certifications for organizations, media, and enterprises. While interest and professional certifications can be self-applied, organizational certification requires manual review by Kandian operations staff.

V-certified creators receive multiple benefits, including external display identifiers across Tencent Kandian' s three products, strengthening user recognition of author identity and improving credibility on the platform. V-certified authors also receive priority in search results, increasing exposure. However, V certification is not permanent; after obtaining certification, creators must continue producing high-quality, original content in their field while maintaining a credit score of at least 80 on the Kandian platform, or the certification will be revoked.

V certification helps creators enhance their influence and strengthens their identity as quality Tencent Kandian creators, thereby increasing creator-platform stickiness.

3.2.3 Quality Creator Programs Kandian has established incentive mechanisms for quality creators to encourage production of content that conveys positive energy, spreads correct knowledge, resonates with readers, and is innovative, creative, in-depth, and entertaining. The Chunyu Plan, for example, offers cash rewards of 1,000 RMB for first-time graphic content winners (800 RMB subsequently) and 1,500 RMB for video content (1,000 RMB subsequently). Selected Chunyu Plan authors also receive personal poster honors, official interviews, and other promotional support.

For authors who have already built popularity and traffic on other platforms, Tencent Kandian developed the Juxing Plan. This program helps established creators from major information flow platforms quickly integrate into Kandian and find loyal users. Within six months of implementation, the Juxing Plan attracted 1,200 authors, incentivized 280,000 pieces of content, provided average monthly rewards of 2 million RMB, and produced over 160 authors with daily

average readership exceeding 100,000 [3].

In addition to these programs, Tencent Kandian offers multi-faceted creator support mechanisms including the Tencent Kandian Top Plan, Kandian Idol Plan, and Escort Plan. These mechanisms both encourage platform content creation and attract external platform creators to join Tencent Kandian, activating and retaining quality creators by addressing their practical interests in a highly competitive information flow platform environment.

The continuously improving recommendation mechanisms, original content protection, plagiarism crackdowns, and tiered creator management all stem from the platform's desire for healthy development. In the information flow era, where content quality varies widely, ensuring high-quality production while capturing traffic represents a critical challenge that Tencent Kandian must address.

References

[1] How to Understand Tencent Kandian' s Content Ecology? 10 Days to Gain One Million Followers [EB/OL]. https://post.mp.qq.com/kan/article/811872828-1495397362.html?*{wv}=2147483777&sig=882d35482aaf04471083415da50a14f7&article*{id}=1495397362&time

[2] Detailed Analysis of Tencent Kandian User Profiles [EB/OL]. https://post.mp.qq.com/kan/video/101-8225f61c894076ah-c3152jc6hhw.html?_{wv}=2281701505&sig=98a252c7e1f4d6d668f5a5ca334b98e8&time=16

[3] Complete Guide to Juxing Plan in 4 Minutes: Earn Massive Traffic and Rewards [EB/OL]. https://post.mp.qq.com/kan/video/101-4105fd04422021ah-q32108vhx5y.html?_{wv}=2281701505&sig=4b22debb7379391095f364f84486f490&time=1607484783

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Note: Figure translations are in progress. See original paper for figures.