

Research on Brand Communication and Fan Economy Model Supported by AIGC

Yue Wen^{1,*}, Suhan Wang²

¹Faculty of Arts and Social Sciences, The University of Sydney, Sydney, Australia

²School of Arts and Communication, Nanhang Jincheng College, Nanjing, China

*Corresponding author: ywen0418@gmail.com

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Abstract: This study aims to comprehensively analyze the role and function of AIGC in brand communication and fan economy models, reveal how AIGC changes the way brands interact with consumers, and reshape the operation model of fan economy. By combining theoretical discussion with empirical analysis, this paper systematically analyzes the new strategies of brand communication supported by AIGC, the new characteristics of the fan economy model, and the opportunities and challenges faced in the integrated development of the two. This text offers both theoretical support and practical guidance for businesses looking to build their brands and engage with fans in the digital age. Companies can utilize the research findings to explore innovative fan engagement models based on artificial intelligence-generated content (AIGC). By enhancing interactions between fans and brands, businesses can maximize the value of their fans and promote sustainable development. In addition, the research results will provide a reference for practitioners and policymakers in related industries and promote the healthy development of the industry.

1. Introduction

As digital technology develops rapidly, artificial intelligence-generated content (AIGC) has emerged as a key force for change in content production. Thanks to advanced technologies like deep learning, natural language processing, and computer vision, AIGC has enabled the automatic generation of various content types, including text, images, audio, and video. This innovation has moved beyond the previous, human-dominated approach to content creation and has ushered in a new era of content production.

The development of AIGC has witnessed rapid progress and breakthroughs in technology. From the early stage of limited scientific and technological level, only small-scale experiments could be carried out, to the rapid development stage with the continuous improvement of deep learning models, the development of multimodal technology, the promotion of open-source models, and the commercialization exploration of large models, the fidelity and diversity of AIGC-generated content have been greatly improved, even to the point where it is difficult for humans to distinguish. Today, the AIGC industry ecosystem has formed a three-layer architecture, including the upstream basic layer, the middle layer models and application tools, and the downstream application layer. It is widely used in the media, e-commerce, film and television, finance, and medical industries, bringing new development opportunities and changes to various industries.

With the popularization of social media and the acceleration of digitalization, the roles and behaviors of consumers have undergone profound changes, and the fan economy has emerged and flourished. Fans are no longer just passive consumers but actively participate in the communication, promotion, and value co-creation of brands. They share content related to brands and express their love and support for these brands through social media platforms. This interaction creates a good reputation and becomes essential for brand development.

In this context, AIGC has become inextricably linked with brand communication and fan economy, influencing and interacting with each other. AIGC provides new technical means and creative sources for brand communication, helping brands achieve more accurate positioning, more efficient

communication, and deeper interaction with consumers; at the same time, the vigorous development of the fan economy provides a broad market space and diversified demand scenarios for the application of AIGC, promoting the continuous innovation and optimization of AIGC technology. Comprehensive research on brand communication and the fan economy, supported by AIGC, is crucial for enterprises to understand market trends, improve brand competitiveness, and achieve sustainable development.

2. AIGC Technology and Its Role in Brand Communication

2.1 AIGC Technical Principle

The core of AIGC technology is the deep learning model, which simulates human cognition and thinking patterns by learning massive amounts of data, thereby generating automatic content. The deep learning model contains multiple levels of neural networks, each extracting and processing specific input data features. Taking the Transformer model in natural language processing as an example, it uses a multi-head attention mechanism, which can simultaneously focus on information in different positions when processing text, effectively capture the semantic and grammatical relationships in the text, and make the generated text more fluent, accurate, and logical. In image generation, the generative adversarial network (GAN) consists of a generator and a discriminator. The generator generates images, and the discriminator determines whether the generated images are real. Through continuous confrontation and optimization, the images generated by the generator become more and more realistic [1].

2.2 AIGC's Advantages in Brand Communication

2.2.1 Personalized Content

In today's digital age, consumer needs are becoming increasingly diversified and personalized, and the traditional "one-size-fits-all" brand communication method can no longer meet these needs. AIGC technology, with its powerful data analysis and machine learning capabilities, can mine user data deeply and realize personalized customization of brand content, thereby improving user engagement and brand loyalty [2].

AIGC technology can collect and analyze user behavior data on multiple platforms, including browsing history, search history, purchase behavior, social interaction, etc. Through in-depth analysis of this massive data, AIGC can accurately portray user portraits and understand users' interests, hobbies, consumption habits, and value orientations. Taking the e-commerce platform as an example, AIGC can analyze users' preferred brands, product types, and purchase frequency based on their historical purchase records. Suppose a user often buys running shoes from a sports brand. In that case, AIGC can determine that the user is highly interested in sports equipment and then push relevant sports brand advertisements, new product recommendations, sports knowledge popularization, and similar personalized content to him.

2.2.2 Expanding Communication Channels and Forms

AIGC technology has opened up new channels and enriched the forms of communication for brand communication, enabling brands to reach target audiences more diversified and innovatively. With the development of Internet technology, communication channels are becoming increasingly diversified, and consumers' attention is becoming more dispersed. Traditional brand communication channels and forms make it difficult to fully cover all channels and meet the preferences of different consumers. The emergence of AIGC technology allows brands to break through this dilemma [3].

Regarding new communication channels, AIGC helps brands spread on emerging digital platforms and social channels. For example, the rise of virtual reality (VR) and augmented reality (AR) technologies has brought new immersive experience channels to brand communication. AIGC can generate brand content that integrates with VR and AR scenes, allowing users to interact with brands in a virtual environment.

In the field of social media, AIGC also plays an important role. The popularity of short video

platforms has made short videos an important channel for brand communication. AIGC can quickly generate attractive short video content to meet the brand's communication needs on short video platforms. Brands can use AIGC to generate interesting short video stories, product demonstration videos, user interaction videos, etc., to attract users' attention and participation. In addition, AIGC can help brands place advertisements on social media accurately. By analyzing users' behavioral data and interest preferences on social media, AIGC can formulate personalized advertising strategies for brands, accurately push advertisements to target users and improve the click-through rate and conversion rate of advertisements.

AIGC enhances brand communication by making it more vivid, interesting, and creative. Beyond traditional text, images, and videos, AIGC can generate innovative communication forms. For example, AIGC can generate interactive content, such as online Q&A, to allow users to participate and enhance the interaction and stickiness between users and brands.

3. Traditional Forms and Characteristics of Fan Economy

3.1 The Connotation and Origin of Fan Economy

Fan economy is a business income model based on the relationship between fans and followers (such as stars, idols, brands, etc.). Its core lies in transforming commercial value through fans' great attention, love, and support for followers. In this model, fans are consumers, brand communicators, product co-creators, and community participants. Based on their emotional identification with followers, they voluntarily invest time, energy, and money, forming a strong consumption motivation and word-of-mouth communication effect [4].

The origin of the fan economy can be traced back to the 1990s. British scholar Matt Hills observed that in transforming the media industry from "broadcasting" to "narrowcasting", loyal fans have become the most attractive consumers. If a TV station wants to make a profit, it does not need to pursue the largest number of ordinary viewers but only needs to create and cater to a certain number of the most loyal viewers. During this period, the fan economy emerged in the entertainment industry, such as music, film, and television. Fans expressed their support for their idols by purchasing their idols' albums, concert tickets, and the products that the stars liked or endorsed, which also brought economic benefits to related industries. Figure 1 shows the Chinese idol industry and fan economy.

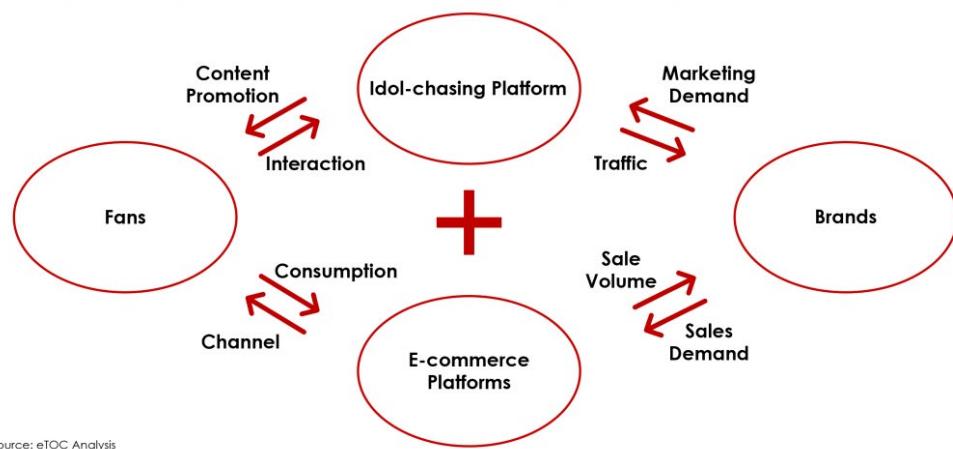


Fig. 1 Chinese idol industry and fan economy

3.2 Characteristics and Operational Strategies of Traditional Fan Economy

3.2.1 Emotional drive and Community Interaction

In the traditional fan economy, the emotional drive is the core element, and fans' love and recognition of stars, idols, or brands is an important driving force for their consumption behavior. This emotional recognition often transcends the practical value of the product itself and is more reflected as an emotional sustenance and spiritual pursuit.

Take Jay Chou as an example. His fan base spans across multiple age groups. Many fans have

bought every one of his albums and attended every one of his concerts since his debut. Even in the digital music era, when physical album sales generally decline, Jay Chou's albums can still achieve excellent sales results. It is driven by the deep affection of fans for him. They regard Jay Chou's music as part of their youthful memories, and buying albums and attending concerts have become a continuation and expression of emotions.

Social interaction also plays an important role in the traditional fan economy. Fans gather through various online and offline communities to share their love for idols or brands and exchange relevant information and experiences. On online platforms, fans can follow the idols' dynamics in real-time, post and share their photos, videos, and news, and discuss their idols' works [5].

Social interaction can also promote word-of-mouth communication among fans, expand the fan base and brand influence. Fans share their consumption experience and love for idols or brands in the community, which can attract the attention and participation of other potential fans.

3.2.2 Fan Marketing Strategy

Traditional fan marketing strategies are rich and varied, aiming to enhance the interaction and stickiness between fans and brands or idols, improve fan participation and loyalty, and achieve brand communication and commercial value conversion. Fan meetings are popular offline marketing events that enable fans to interact directly with their idols. During these meetings, idols can engage with fans, respond to their questions, and perform, fostering a closer connection and sense of belonging among fans. Fan meetings can also achieve commercial value conversion by selling idol peripheral products on-site and setting up autograph and photo sessions. Many stars hold fan meetings and launch limited-edition peripheral products, such as autographed posters, postcards, albums, etc. Fans often enthusiastically seek these peripheral products, which can bring considerable economic benefits to stars and related companies [6].

Online interactive activities are also an important means of fan marketing. As the Internet evolves, online interactive activities are becoming increasingly diverse. Brands and idols engage fans through social media platforms by hosting activities like lucky draws, Q&A sessions, and topic discussions. Lucky draws are a simple and effective way of online interaction. Brands or idols can post lucky draw information on social media, and fans can participate in the lucky draw by following, liking, commenting, forwarding, etc., and have a chance to win prizes. This kind of activity can attract many fans to participate and increase the exposure and topic popularity of brands or idols on social media.

In addition, brands provide fans with unique experiences by hosting online events exclusively for fans, such as online concerts and online live broadcasts. Online concerts allow fans to watch their idols' performances online when they cannot be present in person. During live online broadcasts, idols engage with fans in real time, sharing updates about their lives and work, answering fan questions, and strengthening the bond and loyalty between themselves and their fans.

In addition to fan meetings and online interactive activities, brands will also carry out fan marketing activities such as membership systems and fan support activities. The membership system can provide fans with exclusive rights and services, such as priority purchase rights and member-exclusive gifts.

4. Integration and Innovation of Brand Communication and Fan Economy Supported by AIGC

4.1 AIGC's Reshaping of the Fan Economy

4.1.1 Enhance Fan Engagement and Creativity

AIGC technology offers extensive opportunities for fans to engage in brand content creation, significantly enhancing their participation and creativity, which in turn greatly improves fan loyalty. Although fans actively participate in brand communication in the traditional fan economy, they are mostly passive in content creation. They mainly rely on content provided by brands or celebrity teams for dissemination and sharing. The emergence of AIGC technology has broken this limitation, providing fans with powerful creative tools and enabling them to participate deeply in the creation process of brand content.

AIGC technology can also promote communication and cooperation among fans, forming a good atmosphere of co-creation and sharing. Fans can share their AIGC works on social media platforms or dedicated fan communities, learn from each other, exchange creative experience and skills, and jointly improve their creativity. Through AIGC technology, the role of fans in brand content creation has changed from passive recipients to active creators, and the participation and creativity of fans have been greatly improved. This transformation not only brings rich and diverse content to brand communication but also deepens the emotional connection between fans and brands, enhances fan stickiness, and injects new vitality into the development of the fan economy [7].

4.1.2 Expanding the Fan Economy Business Model

The development of AIGC technology has brought new changes and expansions to the fan economy business model, spawned a series of novel business models, and opened up a new path for the development of the fan economy. AIGC technology has also promoted the deep integration of virtual idols and the fan economy, creating a new business model. With the help of AIGC technology, virtual idols have achieved a qualitative leap in image shaping, content creation, and interactive experience. Using AIGC image generation technology, more exquisite, unique, and personalized virtual idol images can be designed to meet the aesthetic needs of different fans. AIGC can generate rich and diverse content for virtual idols, such as music, dance, short videos, live broadcasts, etc.

Regarding interactive experience, AIGC technology enables virtual idols to interact with fans more naturally and smoothly. Virtual idols can understand fans' questions and expressions through natural language processing technology and give real-time, personalized responses. Virtual idols can chat with fans, play games, answer questions, and adjust their image and content based on fans' suggestions during live broadcasts. This highly interactive experience enhances the emotional connection between fans and virtual idols, making fans more willing to invest time and money in virtual idols. Virtual idols can realize the transformation of commercial value by holding online concerts, fan meetings, and peripheral product sales. Online concert ticket sales, peripheral product sales, and brand cooperation endorsements have all brought considerable economic benefits to virtual idols and the operating teams behind them.

AIGC technology also brings new marketing models and business cooperation opportunities to the fan economy. Brands can use AIGC technology to carry out precision marketing, generate personalized marketing content by analyzing fans' behavioral data and interest preferences, and accurately reach the target fan group. Brands can also cooperate with the AIGC platform to carry out creative marketing activities, such as holding AIGC creation competitions, inviting fans to use AIGC technology to create brand-related content, and excellent works can be rewarded and used for brand promotion. This marketing model can not only attract fans' participation and increase brand awareness and influence, but also collect rich creative resources for the brand, achieving a win-win situation for the brand and fans.

4.2 Case Analysis of the Integration of Brand Communication and Fan Economy Supported by AIGC

With the support of AIGC technology, a certain pop music platform has successfully improved user stickiness and brand loyalty by deeply mining users' listening data and providing users with personalized playlist recommendation services. It has become another typical case of integrating brand communication and fan economy supported by AIGC.

The platform uses AIGC technology to conduct a comprehensive and in-depth analysis of users' listening habits and preferences. It collects basic data such as user playback history and favorite songs. It also analyzes users' listening behavior in different time periods and scenarios and their preferences for different music styles, singers, and albums. By analyzing this massive data, AIGC technology can accurately build user portraits and generate unique music interest tags for each user.

Based on user portraits and music interest tags, AIGC technology generates highly personalized playlist recommendations. These playlists include singers and songs that users often listen to, and songs with similar styles or themes are recommended based on users' interests and preferences. For example, for users who like rock music, in addition to classic rock songs, the playlist will also

recommend works by some emerging rock bands and crossover music related to the rock style.

After launching the personalized playlist recommendation service, the platform's user stickiness and brand loyalty have significantly improved. In short, personalized playlist recommendations allow users to discover more music that suits their tastes, enhancing their love and identification with the platform. Users share the personalized playlists the platform recommends on social media and recommend the music platform to their friends.

5. Conclusion

This study analyzes the brand communication and fan economy supported by AIGC, revealing the key role played by AIGC and the profound changes it has brought about. With its efficient content generation capabilities, personalized customization functions, and expansion of communication channels and forms, AIGC has injected vitality into brand communication and significantly improved its efficiency and effectiveness. In terms of fan economy, AIGC has enhanced the participation and creativity of fans, expanded the business model of fan economy, and reshaped the interactive relationship between fans and brands.

However, the application of AIGC in brand communication and fan economy is still in the development stage. Future research can further explore the optimization and innovation of AIGC technology to better meet the needs of brands and fans. On the one hand, it is necessary to pay attention to the quality and innovation of AIGC-generated content and continuously improve AIGC technology's ability to create more attractive and unique content. On the other hand, it is necessary to conduct in-depth research on the application strategy of AIGC in brand communication and fan economy and explore how to better use AIGC technology to achieve in-depth interaction and value creation between brands and fans. In addition, attention should be paid to ethical and legal issues that may arise in the application process of AIGC, such as content copyright, data privacy protection, etc., to provide guarantees for the healthy development of AIGC. In the future, as AIGC technology continues to develop and improve, its applications in brand communication and the fan economy will expand significantly. This growth is expected to create more business opportunities and development potential.

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