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Analysis on the Construction of Online Marketing Platform for Performing Arts Ticketing under the Background of Big Data

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Abstract. With the development of Internet technology and mobile information technology, the era of big data is coming. Technological innovation drives the transformation of marketing mode. In the era of big data, more efficient marketing mode has changed consumers' habits of obtaining information and consumption. At present, China is vigorously promoting the construction of e-ticketing network system. The introduction of big data integrated marketing concept has a positive reference value for the transformation and upgrading of traditional e-ticketing network platform and the cultivation of performance industry market.

Keywords: Analysis, Online Marketing Platform, Performing Arts Ticketing, Big Data

1. Introduction

In 2009, the cultural industry revitalization plan issued by the State Council clearly pointed out that "support the construction of national cultural ticketing network", and the guidance of the Ministry of culture on accelerating the development of Cultural Industry issued in the same year also proposed that "actively promote the construction of national cultural ticketing network, focus on large and medium-sized cities, and build nationwide performance ticketing sales terminals as soon as possible". After several years of development, China's e-ticketing network system construction has made initial achievements. In the era of the unprecedented increase of consumers' dependence on the Internet, the role of big data integrated marketing in the cultivation of the consumer market is prominent, and the e-ticket network system is facing the opportunities and challenges of transformation and upgrading. Therefore, this paper proposes the concept of "performance ticket network marketing platform" [1].

The domestic big data industry has also experienced a development period of nearly 10 years, and the necessary big data market ecology such as big data service, big data engineering and big data market has initially formed. The information push and accurate customer positioning of performance ticket based on big data has become an important tool in the current performance ticket sales work [2].

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With the support of big data, barley net and other big data platforms have played an increasingly important role in China's ticket market.

The so-called marketing mode refers to the structural combination of marketing resources. At present, there are two mainstream marketing models: one is enterprise centered marketing model; the other is customer-centered integrated marketing model [3]. "According to the criteria, the traditional e-ticketing network platform in China belongs to the former, that is, the enterprise (here mainly refers to art troupes, performing arts companies, etc.) as the center, rather than the interests of consumers.

2. Characteristics of Big Data Ticket Marketing

In the era of big data, the network stickiness of consumers is increasing, and the online data volume of network terminals such as computers and mobile phones is growing rapidly. Relying on the storage technology, mining technology, computing technology and analysis technology of processing massive data, big data application can accurately analyze the consumption mode, consumption time, consumption place, consumption habits, social circles, social topics and other information of Internet users, and the combination of these information can accurately sketch the consumption model of each target consumer. At present, the analysis and utilization of consumer behavior has become the focus of marketing. The consumer oriented big data integrated marketing will provide a new perspective and new ideas for the construction of the network platform of performance ticket marketing.

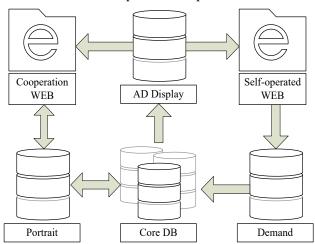


Figure 1. Data Flow of Ticket Big Data System

The ticketing big data system forms enough data resources to support ticketing sales by building core database, and all data resources are obtained through corresponding API system. Among them, the user portrait data provided by the cooperation site and the ticket information push service provided by the user portrait data provide support for the ticket big data system. The push information of the cooperation site comes from the advertising display data generated by the ticketing system according to the core database data. The advertising display data provides services to the cooperation site as well as the self operated site system. The self operated site system collects direct user demand data, thus facilitating ticket sales. The sites mentioned here include the mobile phone client, Wechat public platform, Wechat applet, MAC client, TV client, etc. served by the ticket big data system. All systems run under the same core database to realize data synchronization.[4]

3. The Realization of User Portrait

In this paper, the convolution neural network is used to realize the user's portrait. The collected data includes the basic information of the user, including age, gender, nationality, occupation, permanent residence, current location, etc. all the data sources are desensitized, which will not disclose the user's privacy, and the sensitive data cannot be pushed to the platform database. In addition, collect the



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surrounding of stars, movies and TV that users have purchased, star hotels and star bars that users have visited, especially the performance forms that users have watched. All the data are mined on the basis of desensitized user identification code, which will not disclose the user's privacy data.

As shown in Figure 2, after four groups of data are input, a collection module is used to collect the data, each generating a double precision floating-point variable, wherein the three variables of income1 are imported into process1, the variables of income0 are input into process2, the data of process1 and process2 are aggregated to form a pre target, and the pre target data is reversed convoluted to process1 and process2, and finally process2 and pre target form output4, pre target form output3 and output2, pre target and process1 form output1, four output variables are double precision floating-point variables, four double precision floating-point variables finally form the user's final portrait data.

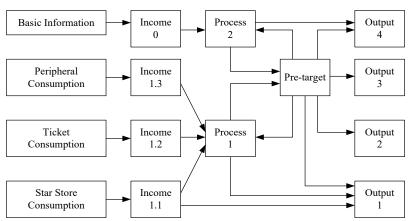


Figure 2. Neural Network Deep Learning Convolution Mode

The original data source of the portrait data is partly from the interactive portrait data of the cooperation website and partly from the data of the website. The cooperation website encapsulates the user ID data into the user ID code and pushes it to the website through the API. The website conducts in-depth data mining combining the correspondence between the user ID code and the user data of the website. The result of data mining is not real logical data, that is to say, the four double precision floating-point data obtained by it has no practical significance, but it can calibrate the type of advertising data that the user should push.

4. The Practical Significance of Big Data Ticketing Platform

The fragmentation of information makes people face more choices of consumption, and the consumption behavior and purchase mode of people are easy to change in a short time. Performance products, such as concerts, sports meetings, drama performances, etc., belong to the timeliness content, and have a certain degree of popularity attention at a specific time. A reasonable grasp and effective use of this time period is an important condition for successful marketing. Based on the application of big data, the online marketing platform of performance ticket business can obtain users' social topics, browsing records, geographical location and other data, and timely push performance information at the highest demand of consumers, so as to maximize the marketing benefits.

Big data integrated marketing is a kind of precise marketing, which constructs a private database for each target consumer, and provides personalized information according to the database, so as to fully stimulate and mobilize the consumer's senses, feelings, thinking, behavior, association and experience and other emotional, rational and situational factors, so as to achieve the consumer's self satisfaction. Precision marketing can optimize the consumer experience and improve the loyalty of consumers to the marketing platform. This makes the online marketing platform of performing arts ticket business no longer a cold, stereotyped public website, but a personal consumption Butler tailored for every consumer, which is easy to achieve emotional resonance and experience marketing



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with consumer groups.

Big data integration is one God interactive marketing. Big data integration will reverse the order of the sales chain, and consumers are at the top of the chain. With the help of the ticket sales platform, the Performing Arts Troupe will learn about the consumer's willingness to consume, such as the form, content, duration and stars of the program. In response to the desire to consume, the Performing Arts Troupe will launch the production of performing arts products, and then push the products to the market in a specific region and at a specific time. After that, the audience will upload the regular viewing experience, and the producer will adjust the program according to the audience's feedback, thus completing the interaction between the ticket network marketing platform and consumers.

5. summary

Integrated marketing based on big data application emphasizes the concept of taking consumers and market as the center, and provides consumers with diversified and personalized product choices, which conforms to the characteristics of the times and consumer psychology, and will lead a new round of marketing trend. This paper thinks that big data integrated marketing has the following characteristics.

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