Research on Marketing Development under the Background of Artificial Intelligence Technology

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Abstract. In today’s society, my country’s science and technology has made many advances and breakthroughs on the original basis. Among them, artificial intelligence technology has been further improved in this new market environment, and the operating methods of all sectors of society have undergone earth-shaking changes under the guidance of this new technology. Many traditional industries on this basis have a more brilliant development prospects. As an important part of various enterprises, marketing work has also undergone new changes due to the application of artificial intelligence technology. Especially in an environment where various information and data can be shared and used via the Internet, artificial intelligence technology can show all its advantages. All data information can be refined analysis through advanced computer system.

Keywords. Artificial intelligence technology; Marketing work; Development research

1. Introduction
Marketing work is extremely comprehensive. The relevant staff must not only have superb eloquence, but more importantly, find the most suitable marketing target. At the same time, it is necessary to understand the actual needs and preferences of users for the main business products. Only in this way can the marketing work have a higher success rate. In order to be able to tap customer resources in the market environment in a shorter time, the use of artificial intelligence technology is extremely important [1]. It can perform detailed analysis of various data, and marketers can understand the actual needs of consumers based on these valuable information resources. Greatly increase the success rate of marketing work, enterprises can obtain more economic benefits, and do not need to invest more time and human resources. This article analyzes and summarizes the working methods of marketers at this stage, and puts forward some practical development strategies, aiming to help marketing staff to change their working concepts in time and actively use new artificial intelligence technology to analyze market development trends.

2. Definition of artificial intelligence technology
The English abbreviation of artificial intelligence technology is AI, the normal operation of this new technology requires the support of an intelligent computer system, and it has a development history of more than a century. On May 24, 2019, the "China's New Generation Artificial Intelligence
Development Report 2019” (Chinese and English version) was released at the Pujiang Innovation Forum. According to the analysis of the report, from 2013 to 2018, a total of 305,000 papers and documents in the field of artificial intelligence worldwide were produced. Among them, 74,000 were published in China and 52,000 in the United States. Many scholars in the field of my country are also actively researching related technologies, publishing many papers every year, and occupy a significant proportion of the world, and it also show a trend of increasing year by year (as shown in Figure 1) [2]. This technology is extremely scientific, and it can use specific means to simulate some scenes, for human development of intelligent mechanical system to provide effective technical support. The core technology in the field of artificial intelligence is the ability to implement humane training for computers [3]. Allow computers to be capable of intelligence and behave similarly to humans. After systematic training, this intelligent computer can continuously improve its learning ability, through the storage function of new technical knowledge, intelligent computers can complete more complex operating instructions. The wide application of this technology can improve the work efficiency of all sectors of society, realize the reasonable allocation of social resources. When performing various tasks, marketing workers can actively use this method to accurately grasp the target customers' preference for the main business products, and then realize the intelligent marketing mechanism. It can be seen that marketers should actively apply this intelligent advanced technology in the future working environment, and organically integrate valuable marketing experience with brand-new artificial intelligence methods. Reshape your marketing work environment [4].

![Figure 1. Line chart of the growth trend of the number of AI papers in China](image)

### 3. Use artificial intelligence technology to improve marketing efficiency

#### 3.1 Precisely screen push messages

Marketing work has multiple communication methods in the process of execution. Among them, the use of mobile phone client to achieve the promotion of marketing content, or WeChat public account to push the article at the end of the advertisement are through the use of artificial intelligence technology. The use of artificial intelligence technology can determine the future behavior trend of a large amount of data information in the network, and according to the message records left by each network user. Among them, Taobao software, which people often use in daily life, actively uses this artificial intelligence technology to improve the original operating model. The intelligent computer
system can record information according to the keywords searched by users, as well as the types of products they frequently buy, determine the types of products that users may need to buy in the future. And the information of these commodities will be displayed on the main interface of Taobao software [5]. This new type of e-commerce marketing mechanism can fundamentally improve the efficiency of consumer transaction success, and the economic benefits obtained by businesses are also showing a trend of increasing year by year. For example, a consumer recently purchased a basketball product using Taobao software [6]. Such purchase behavior can be quickly recorded by an intelligent computer system to update the user's purchasing product information database in time. In order to stimulate consumers to buy more goods, Taobao software will push information about basketball shoes for consumers on the recommended homepage. This marketing method is extremely precise. Not only can it promote consumers to purchase new products. It can also increase the exposure rate for many stores in Taobao software.

3.2 SEM search engine technology
SEM search engine technology is also highly used in marketing work. The reason why this technology has gained popularity in marketing is that it allows users to develop the habit of frequently using search engines, allowing users to rely on search engines to obtain the information they need when faced with unknown knowledge [7]. More importantly, this new search engine model can classify users. The problems that Internet users with different cultural levels and different living habits need to face in real life will also be very different. In such a market development environment, if marketers don't think about many aspects in time, they can't meet the actual needs of consumers at all levels in a short time if they still use the previous marketing methods. At the same time, it will unintentionally lose a large number of potential stock users. Therefore, the application of artificial intelligence technology is an inevitable trend of market development. Marketing companies can get rid of the advertising push model that casts the net everywhere, but can achieve refined analysis of large amounts of data and information. In this way, it has a strong pertinence when placing different types of advertisements and it can achieve the good marketing effect.

3.3 Set up online customer service
Nowadays, people's living standards have been significantly improved on the original basis, and the frequency of online shopping has also shown a trend of increasing year by year. It has become an indispensable and important part of everyone's actual life. In order to answer the doubts of online users when purchasing products, the establishment of online customer service positions is extremely important. However, the work efficiency of manual customer service is actually relatively low. This requires the use of new artificial intelligence technology to create a virtual customer service in the network environment. This online AI customer service will analyze the user's past consumption records before answering various questions from the user. Search its original customer service consulting records, and then accurately analyze the issues that each user is most concerned about when shopping online [8]. AI customer service can also answer users' doubts in time. Not only that, AI customer service also gradually has a smart chat function. It can use sophisticated computer systems to identify key words in the content of users' questions, and know what products users click the most frequently. This can accurately analyze the user's consumption habits and purchase style, and more accurately analyze the consumer's future purchase direction. In addition, the use of the AI system can also realize a natural interaction mode, promptly recommending the most suitable products for consumers [9]. It reduces the time for users to constantly search for target products, and the efficiency of marketing can also be improved on the original basis. And established a good relationship with target customers.

3.4 Customer follow-up management technology
Customer resources are an important part of the development of every enterprise. It can recommend all kinds of products for users to get a good reputation in the market. The core competitiveness of
enterprises in a complex market environment can also be fundamentally improved, enterprises can obtain more economic benefits in a shorter period of time. In addition, the use of artificial intelligence technology is not only to help companies find more potential customers, but more importantly, to maintain good relationships with old customers. In order to enable customers to have a high degree of loyalty, companies need to set up a full-time department internally, and the core content of their work is to better carry out follow-up management. If it is necessary to integrate artificial intelligence technology in this work, it is bound to make marketing staff more intuitive to understand the actual life state of old customers and the requirements of commodity quality, and then formulate more targeted marketing strategies. Allow old users to have a better consumption experience, and at the same time, it can also narrow the connection between consumers and manufacturers. With the continuous increase in the number of customers, the enterprise can receive support from all parties when performing various tasks, and it can occupy a higher share in a limited market environment and obtain more economic benefits, as shown in Figure 2. This is an extremely important work content for the long-term development of an enterprise.

Figure 2. The growth rate of corporate marketing sales under the application of AI technology

4. Conclusion
To sum up, the development and progress in all fields of our society cannot be separated from the support of science and technology. Marketing staff also need to actively use new artificial intelligence technology when performing their work tasks. Through the analysis of various data information, marketers can more clearly understand the shopping habits of consumers. Only in this way can we understand the actual needs of users in many aspects and work out a more scientific and reasonable marketing plan. Actively adapt to the dynamic changes of the market. Only in this way can the work standards of marketers be improved.

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