On the Application of Artificial Intelligence Technology in the Mining of Network Public Opinion Big Data Communication Characteristics

Bo Wang
Communication University of China, Nanjing 210000, China.

Abstract: Under the background of the development of the network information age, the current Internet industry has obtained more development opportunities, but it has also brought corresponding challenges in the process of wide application. In the development and construction of modernization, society pays more attention to the supervision and determination of the characteristics of online public opinion. From the perspective of the current characteristics of network public opinion, because social information is more extensive and involves many fields, network public opinion has a high degree of complexity and diffusion. Therefore, it is necessary to strengthen the analysis and application of relevant data mining systems in order to achieve efficient management of network public opinion. The key to the disadvantage of the traditional excavation of public opinion communication characteristics lies in the lag of the excavation process, and it is difficult to deal with malignant public opinion in a timely and effective manner. Therefore, in order to truly solve the lagging problem of public opinion data dissemination feature mining technology, it is necessary to strengthen the application of artificial intelligence technology in it.

Keywords: Artificial Intelligence Technology; Big Data of Network Public Opinion; Feature Mining; Application

Introduction

In the modern construction and development environment, the application of advanced modern technology to efficiently mine network public opinion big data is largely compatible with the current development trend of society. To apply artificial intelligence in the mining of network public opinion big data communication characteristics, it is first necessary to conduct an in-depth analysis of the network public opinion big data communication, clarify the concept and connotation of network public opinion big data, and understand the communication characteristics of big data.

1. The concept of big data on network public opinion

The so-called big data of network public opinion is actually when various types of events and phenomena occur in various fields of society, and the public can make corresponding attitudes to specific and complete events through various ways of information dissemination, as well as form a collection of event cognition. In the initial stage of the dissemination of big data on online public opinion, due to the anonymous nature of online speech, to a certain extent, some of the people who publish speech will deviate from the normative nature of speech, and the online platform has become a way for some netizens to vent their emotions. In real social life, the public lives in various fields of society, with the acceleration of social change, the content of social information is complex, in order to improve the convenience of life, the application field of the network continues to expand, the public can use this as a key way to achieve cross-regional communication. In the face of the wide application of network systems, in the current network environment, there are often different types of speech content, and even a variety of different views and opinions on the same event, making social information content diversified. These data information will be spread in multiple directions through the network, and new netizens will become the constituent members of the dissemination of relevant public opinion under a certain group effect, and with the fermentation of the event, the scope of influence of online public opinion will expand correspondingly in society. Therefore, it is

necessary to effectively supervise the complex network public opinion, and the application of artificial intelligence technology is the key.

2. Based on artificial intelligence technology, network public opinion big data communication feature mining method

2.1 Divisions of characteristics of big data dissemination of online public opinion

Due to the wide and diverse social field, the public carries out different types of production and life, in the current social environment, different public opinion will occur, in order to achieve efficient mining of network public opinion big data communication characteristics, first of all, it is necessary to divide the current network public opinion big data communication characteristics. In the process of carrying out the division work, a comprehensive analysis can be carried out from four aspects. From the perspective of indicator dimensions, it is necessary to set two observation dimensions: event type and public opinion characteristics. Different types of events have different characteristics, which can generally be divided into normalized characteristics and anomalous characteristics. From the perspective of the normal characteristics of events, it is necessary to analyze their indicators and judge from the specific types of events, their objects and time. Indicators for normal characteristics should be quantified. In terms of the abnormal characteristics of events, it is necessary to set up two indicators, the sensitivity of the topic and the degree of loss, and achieve scientific assessment through relevant experts in the quantitative form of the indicators. In terms of network information characteristics, it is necessary to analyze the types of complex network information and the authority of information data, and analyze the degree of socialization in terms of index quantification. From the perspective of the characteristics of information narrative form, it is necessary to observe the attention of its media and netizens and the degree of alienation of information. In terms of the characteristics of information dissemination methods, it is necessary to analyze the actual circulation speed and circulation of public opinion, which can be evaluated by the specific number of word frequencies, the total number of posts, the duration and the rate of change of the number of posts.

2.2 Design of network information sensing extraction module

The network information sensing extraction module is designed, which is of key significance for the collection of data information, and can be used as a raw material for subsequent operations by providing the corresponding information flow for the system. In this process, in order to obtain the node number of the information flow, an effective connection between the circuit and the sensor should be made before the extraction module plays a role, which can greatly improve the overall efficiency of network public opinion feature mining. For the number that has been collected, the relevant functions of the central controller can be used to obtain the relevant coding values that need to be effectively used, and the dynamic data of the signal can be stored in time in this link, on this basis, a scientific conversion method should be adopted to complete the establishment of the transmission current and promote the propagation of the signal. Inside the extraction module, the central controller is the main working element, which needs to be connected to the memory in order to ensure the integrity of the control area. When carrying out external connection work, it is also necessary to take appropriate technical means to effectively connect the port with the external circuit.The specific differences in online public opinion big data include two aspects, specifically the click frequency of different types of data and the number of their visits. Only when the data in the two aspects of click frequency and visit number shows a large number, can we ensure the integrity of public opinion big data to a certain extent and realize the efficient use of data information. In the process of extracting a large amount of data, in order to ensure the accuracy of data information collection, it is often necessary to design multiple interactive interfaces, so as to achieve the purpose of timely and effective analysis and processing of relevant data. From the perspective of the central controller, it is necessary to set the data interface based on the different types of current public opinion, and these data interfaces need to be different. In the process of setting up the data interface, the pictures, text, videos and other forms of relevant data shall be analyzed. The design of the data interface should meet the needs of the data transmission and extraction process in the current network environment [1].

2.3 Protocols for public opinion data artificial intelligence access to the network

The practical significance of the design of the extraction module is that it can read and write a large amount of data information

accordingly, but in essence, there are still certain problems in the process of hooking with the specific data of artificial intelligence, and it cannot be directly connected. There is a certain difference between the attributes of network data and artificial intelligence analysis, and the key to this difference lies in the difference in the characteristics of the network between the two sides. From the perspective of network data attributes, its network characteristics exist within the range of basic types, and the network characteristics analyzed by artificial intelligence belong to the local area network. Due to these differences in nature, it is difficult for the two sides to achieve direct docking, so it is necessary to apply corresponding transmission tools to achieve the transformation of network attributes, so as to achieve the joint processing of both parties, and the addition of network access protocols as a key processing method is conducive to improving the efficiency of handling related problems in the mining of network public opinion communication characteristics at this stage [2].

3. Experimental data analysis

In order to scientifically verify the artificial intelligence network public opinion big data dissemination feature mining system, it is also necessary to carry out relevant experimental data analysis, and when the feature data with high accuracy is obtained, the efficiency of subsequent development can be greatly improved. In the process of carrying out experimental design, multi-faceted comparative analysis should be carried out with the traditional data mining system, which is conducive to improving the scientific nature of the design from the perspective of overall development. When scientifically judging the performance of the design system, it is also necessary to strengthen the analysis of the degree of read and write latency of data features [3].

4. Concluding remarks

In the work of mining the characteristics of network public opinion big data communication, it is necessary to analyze the current situation of public opinion communication at this stage, and use advanced artificial intelligence technology to innovate the feasibility of traditional feature mining methods. Before practical application, it is also necessary to verify the applicability of the method through relevant experiments, which is conducive to the digital display of the public opinion environment and problems in the face of a large number of highly complex public opinion information.

References

[1] Luo P, Wu B. Network public opinion big data propagation feature mining system based on artificial intelligence[J].Modern Electronic Technology, 2020, 43(04): 176- 179.

[2] Hong XY. Network public opinion big data propagation feature mining system based on artificial intelligence[J]. Electronic Technology, 2021, 50(03): 170-171.

[3] Cao JX. Application of artificial intelligence technology in the mining of big data communication characteristics of network public opinion[J]. Information and Computer (Theoretical Edition), 2021, 33(08): 168-170.