# Application of Computer Data Mining Technology in Internet Industry

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**Abstract:** The 21st century is the Internet era, which is a new era full of creativity. With the continuous development of information technology, the Internet industry has been greatly improved, which gradually improves the convenience of people's lives. Therefore, Internet technology is constantly affecting our lives. Computer data mining technology is a new type of science and technology, which has irreplaceable advantages. Firstly, this paper analyzes the function of data mining technology. Then, this paper analyzes the general process of data mining technology. Finally, this paper analyzes the application of data mining technology in the Internet industry.

## 1. Introduction

Computer data mining is a new technology, which is based on big data. With the rapid development of computer technology, our technology will be greatly improved, which will bring great changes to our life. Among them, data mining technology is the ultimate emerging technology, which speeds up the flow of information. Computer data mining technology has many advantages, mainly as follows. First, data mining technology has realized the statistics and classification of user and consumer information, which can help enterprises to obtain more economic benefits. Second, through data mining technology, we can improve the scientificity of data statistics, which will be more conducive to the demanders to make correct assessment and decision-making. Third, data mining technology can ultimately predict the development trend of the industry, which will effectively avoid investors' investment mistakes. Based on big data, data mining technology can better contribute to the Internet industry.

## 2. Functions of Data Mining

Data mining technology is a new technology to deal with and decompose specific data mining tasks, which is a type of process to explore the need patterns. Therefore, data mining can be divided into two modes: predictive mode and descriptive mode. The data mining function mainly has the following ways, as shown in Figure 1.
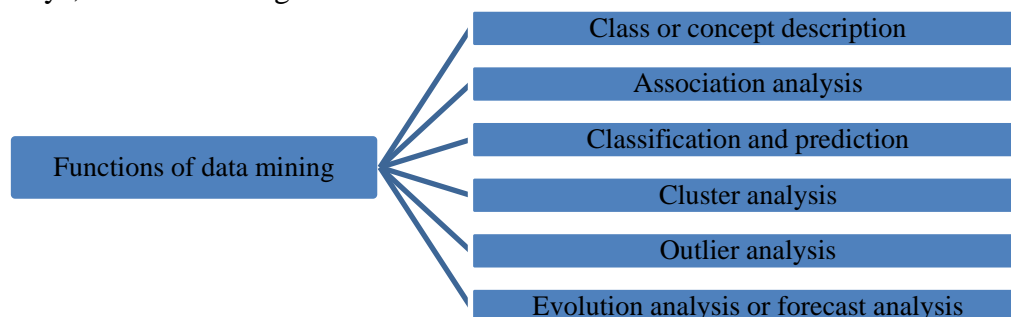


Figure 1: Functions of data mining

## 2.1 Category or concept description

Class or concept description is the simplest type in descriptive data mining. Through data characterization and data classification, we can summarize and compare the views of data classes, which is a tool to describe the class or conceptual relationship between data. Through data

characterization, we can describe the target data in general. The output of data characterization has many forms, such as pie chart, bar chart, line chart, etc.

## 2.2 Correlation analysis

By mining the detection rules, we can find the association relationship between the data, which satisfies certain conditions and has dependency. In the Internet industry, association analysis is widely used to study the relationship between different commodities. By analyzing customers' buying habits, we can find that when they buy a certain product, they will also buy other ancillary products, which will be another way to adjust the marketing strategy of the enterprise.

## 2.3 Classification and prediction

Based on specific data mining technology, we can explore unknown data types. Through classification and prediction, we can distinguish and distinguish data classes and conceptual models. By classifying the class markers of predictable data objects, we can predict and classify some unknown data, which will improve our understanding of data.

## 2.4 Cluster analysis

Cluster analysis is not a data set of marker class, it is a symbol of analyzing data object, we do not need to consider the class label. Cluster analysis can analyze the data without marker class, which will produce the label of data group. Therefore, we can analyze and group the similarity between maximized and minimized clusters, which will improve the high similarity of clustering.

## 2.5 Outlier analysis

Outlier analysis is a method to analyze data sets, which can find some general or abnormal behaviors of data. Through outlier detection and cluster analysis, we can analyze the coincidence points of two highly correlated tasks. Clustering analysis is a kind of data model which focuses on analyzing most similar data. According to the requirements of the target, we can organize and locate the target data, which focuses on finding the abnormal situation of deviation.

## 2.6 Evolution analysis or prediction analysis

Evolutionary analysis or predictive analysis is a technology to describe the development law or trend of behavior objects, which is studied with time. For example, time series analysis, similarity data analysis, periodic pattern matching, etc.

## 3.  General Process of Data Mining Technology

Data mining technology is a process of repeated iteration and gradual cycle, which is not a way to get results in one time processing. Data mining technology is composed of many steps, mainly as shown in Figure 2.
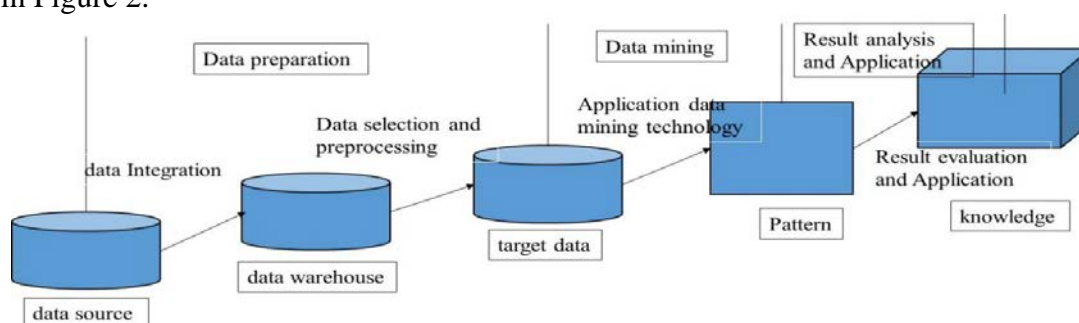


Figure 2: General process of data mining technology

## 4. Application of Data Mining Technology in Internet Industry

There are many applications of computer data mining technology in the Internet industry, mainly divided into the following three kinds, as shown in Figure 3.
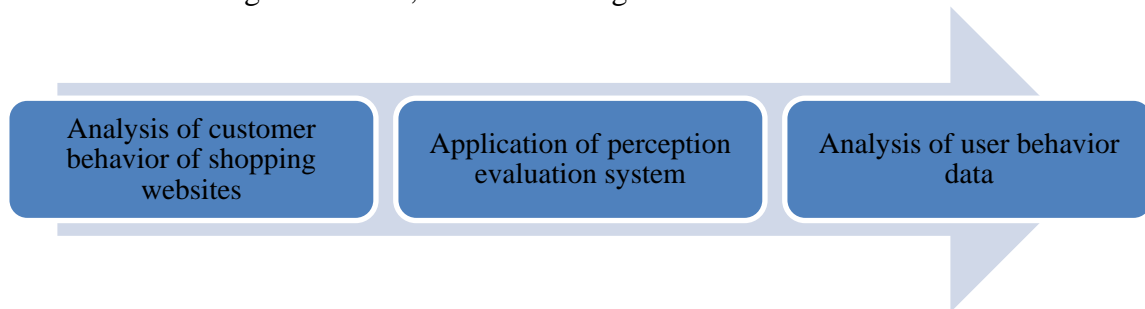
Analysis of customer behavior of shopping websites → Application of perception evaluation system → Analysis of user behavior data

Figure 3: Application of data mining technology in Internet industry

### 4.1 Analysis of customer behavior of shopping websites

In recent years, with the rapid development of online shopping, online shopping platform has become the main way of life. With the increasingly fierce competition of online shopping platforms, online shopping platforms need to analyze the customer behavior of shopping websites, which can better attract customers, promote the completion of transactions, and achieve their own revenue. However, how to analyze the customer behavior of shopping websites has become an important research topic. Data mining technology can solve this problem well. For data mining technology, first of all, we need to collect relevant information, such as shopping habits, consumption ability, consumption preference, shopping demand, etc. Through the mining and analysis of user information data, we can get a targeted and scientific scheme.

### 4.2 Application of perception evaluation system

Computer data mining can be applied to specific perceptual evaluation system, which can help enterprises improve their products or services. Through the perception evaluation system, consumers can choose better service products, which will effectively improve the user experience and attract customers. Network platform and businesses must accurately grasp the consumer experience of customers, which can meet the latest needs of consumers. By increasing the market share of enterprises, we can improve the advantages of market competition. Through data mining technology, we can collect a large number of user experience data, which will effectively improve the product or service improvement and suggestions. Through data mining technology, enterprises can make a set of scientific and reasonable production plan and service plan, which will improve the pertinence and practicability of products and services. Through data mining of perception evaluation system, enterprises can improve their products and services, which will improve customer satisfaction and perceived value of products and services.

### 4.3 Analysis of user behavior data

The Internet behavior of users can be divided into two levels. At the micro level, Internet user behavior is specific operation behavior, such as click times, browse times, browse time, publish content, etc. At the macro level, Internet behavior refers to users using different types of applications, which will meet their own needs, such as watching videos, online shopping, etc. Through data mining technology, we can observe user behavior data, which will improve the relationship between user behavior and user credit evaluation. Through data mining technology, we can analyze user behavior data, which will improve an Internet application. The essence of Internet value is service, and the carrier of Internet service is all kinds of Internet applications. Therefore, any activity of Internet users on the Internet can specifically correspond to an Internet application, which is called the application of the Internet.

## Conclusions

Through data mining technology, we can get the user preference, which will improve the user's marketing methods. Through data mining technology, we can help online shopping platforms accurately grasp consumers' consumption habits and characteristics, which will improve consumers' attractiveness. By adjusting the business strategy and mode, online shopping platform and merchants can effectively promote the completion of various consumer behaviors, which will improve the revenue performance and healthy development of online shopping platform.

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