Development Trend of TV Drama Aesthetic Form from the Perspective of Big Data

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Abstract. After entering the era of big data, the aesthetic form of TV plays is bound to enter a new round of changes. It is of great strategic significance to conduct in-depth theoretical research on the changes of its development in time. Based on this, this paper analyses the development trend of TV drama aesthetic form from the perspective of big data. In the research, we use the method of literature analysis, through consulting relevant information to understand the aesthetic form of Chinese TV drama, and summarize the current situation of aesthetic form of Chinese TV drama. At present, the development of online drama has a great impact on the aesthetic form of TV drama. Therefore, we use the form of questionnaire survey to compare and analyze the aesthetic form of traditional TV drama and online drama, and use cluster analysis to sort out and evaluate the research results, so as to obtain more direct research results. The results of this study show that the traditional TV series score 61 on openness, 65 on topic, 54 on convenience and 71 on diversity. On the other hand, the score of online drama is 90 in openness, 86 in topic, 83 in convenience and 86 in diversity. Thus, it can be seen that the network drama has a great influence on the development of people's TV drama aesthetic form.

Key words: Big Data Perspective, TV Series, Aesthetic Form, Cluster Analysis

1. Introduction

We know that since the birth of information technology, especially after the popularity of the Internet, the amount of information has increased unprecedentedly, and human beings have entered the era of big data [1-2]. At the same time, the communication mode of traditional media has also changed accordingly. All media is the media system in the era of big data. It integrates traditional media in all aspects and is gradually accepted by the industry [3-4]. The competition in the era of big data mainly comes from the opening of data and the collection, processing and application of data. This kind of competition mode not only brings unprecedented development opportunities to all social strata, but also makes all industries face the situation of reform. The TV drama industry is no exception. Under such circumstances, a series of online dramas appear and have a great impact on the TV drama industry Sound [5-6].
From the day of the birth of TV drama, its aesthetic form has been constantly changing. It has been "dramatized", "fictionalized", "cinematized", "commercialized", "fast-food", "entertained" and "family ethical". A series of forms have made TV series form its own unique aesthetic form [7-8]. At present, the prevalence of online drama has a great impact on the development of aesthetic form of TV drama [9-10]. In this case, it is of great significance for the development of TV drama industry to study the development trend of aesthetic form of TV drama.

This paper analyzes the development trend of TV drama aesthetic form from the perspective of big data. In the research, we introduce the clustering analysis algorithm and the connotation of the aesthetic form of TV drama, and understand the current situation of aesthetic form of TV drama in China by consulting relevant materials. In addition, in order to study the influence of online drama on the aesthetic form of TV drama, we use the form of questionnaire survey to compare and analyze the aesthetic form of traditional TV drama and online drama, and on the basis of clustering analysis algorithm, we sort out and study the research results of this paper. According to the survey results, the public are more inclined to network drama.

2. Clustering Algorithm and the Theory of TV Drama Aesthetic Form

2.1 Cluster Analysis

Clustering analysis is an important technology in data mining and big data analysis. It has been widely used in many fields such as medicine, aerospace, pattern recognition, social network and media. The clustering algorithm is based on the equivalence measure criterion, classifies the data set according to the similarity degree, divides the objects with high similarity into one group, and separates the data with great difference, so as to find the structure hidden in the data.

The common clustering algorithms are: K-Means algorithm, DBSCAN algorithm and FSFDP algorithm.

(1) K-Means algorithm

The main idea of the algorithm is: given a data set containing n objects, K objects are selected as the cluster prototype, that is, the cluster center. The remaining objects are allocated to the nearest cluster center according to their distance. The average error criterion function E is expressed as follows:

$$E = \sum_{i=1}^{k} \sum_{p \in C_i} |p - m_i|$$

(1)

In this paper, the sum of squared errors of data points is represented by E, p is a data object in cluster Ci, and the average distance between objects in current cluster Ci is expressed in Mi.

(2) DBSCAN algorithm

The core idea of the algorithm is to combine the continuous high-density micro clusters, and the cells below the density threshold are "noise", which can identify any shape of micro clusters and identify noise points. Firstly, any data point object P that has not been accessed is selected to find its neighbors within the radius threshold ε. If the data point object satisfies equation (2) within the threshold value ε:

$$N_\varepsilon(p) = \{ q \in N | \text{Euc}_{distance}(p, q) \leq \varepsilon \}$$

(2)

(3) FSFDP algorithm

In a given neighborhood, the cluster center is often surrounded by lower density neighbors, and is far away from another cluster center, that is, a higher density point. In order to describe the algorithm, two stable quantities need to be explained, as shown in formula (3):
\[ \rho_i = \sum_{j \in \mathcal{C}_j} \chi(d_{ij} - d_c) \]  

(3)

2.2 Aesthetic Form of TV Play

Aesthetic form is the perceptual coherence formed by aesthetic subject and aesthetic object in aesthetic practice. Aesthetic form has universality. In human social life, human beings engage in material production and labor, and have contact with nature and society, thus forming a specific aesthetic relationship with nature and society. The aesthetic relationship between man and reality is not abstract, but embodied in the form of human social life. Therefore, it is a specific form with vivid image, namely aesthetic form.

TV drama is the combination of modern technology and traditional art. Its aesthetic form is formed under the influence of many factors. TV drama combines the advantages of drama, literature, film and many other arts. In the process, it gradually forms a unique aesthetic form. Absorbing the essence from these arts, according to the similarities and differences of people's cognition of artistic images, TV plays combine the comprehensive art of audio-visual and space-time art, and its aesthetic features combine modern technology and traditional drama at the same time. The characteristics of.

3. Research Methods

(1) Literature analysis

We know that big data has a great impact on the aesthetic form of TV dramas, both positive and negative. In the research, this paper uses the method of literature analysis, consulting the relevant domestic websites and materials to understand the development of China's TV drama, so as to understand the development process of China's TV drama aesthetic form, and summarize the problems existing in the aesthetic form of China's TV drama,

(2) Questionnaire survey

At present, the influence of online drama on the TV drama industry is huge. Therefore, this paper uses the questionnaire survey method to conduct a questionnaire survey on the students of the TV news college of a university in our city, and carries out an investigation on the aesthetic form of traditional TV drama and network drama. The questionnaire was closed. On the basis of cluster analysis, this paper analyzes and evaluates the research results. The evaluation content is carried out from four aspects, namely, the aesthetic openness, topicality, convenience and diversity of TV drama. The score of each content is 0-100. The higher the score, the higher the degree of satisfaction.

4. Development Trend of TV Drama Aesthetic Form from the Perspective of Big Data

4.1 Analysis of TV Drama Aesthetic Form from the Perspective of Big Data

Through consulting relevant materials and websites, this paper understands the current aesthetic form of TV drama in China, and analyzes the current situation of aesthetic form of TV drama. The results are shown in Table 1 and Figure 1.
Table 1. Current situation of TV drama aesthetic form from the perspective of big data

| Present situation                                      | Influence                                                  |
|--------------------------------------------------------|------------------------------------------------------------|
| The aesthetic form of TV plays has two sides            | Big data is a double-edged sword for TV drama aesthetics    |
| The aesthetic forms of TV plays are diversified         | It reflects the development of society                      |
| Consumerism representation of TV drama art              | Production line of TV drama                                 |
| The planarization and non depth of the artistic aesthetics of TV drama | The understanding of art tends to be superficial             |
| The lack of spirit brought by TV drama art              | It is easy to produce mental deficiency                     |

Figure 1. Current situation of TV drama aesthetic form from the perspective of big data

From Table 1 and Figure 1, it can be seen that big data has a huge impact on the aesthetic form of TV series. From its advantages and disadvantages, this paper summarizes it. The research results show that the current aesthetic form of TV drama mainly has the following aspects: firstly, under the background of big data, the aesthetic form of TV drama has two sides, Big data is a double-edged sword. Secondly, under the background of big data, the aesthetic form of TV drama presents diversified development. Moreover, the consumerism of TV drama art and the production line of TV drama make the aesthetic form of TV play commercialized. In addition, the planarization and non depth of TV drama art aesthetics is also one of them. Finally, the lack of spirit brought by the art of TV drama is also one of its negative manifestations. This is analyzed in detail below.

1) The aesthetic form of TV plays has two sides
   At present, the biggest way for China's large-scale TV play creation is to use imitation data to express aesthetic opinions. It promotes the exploration of new production mode and opens up a new vision. However, to create aesthetic value and emotional narrative, big data is a double sword, and aesthetic imitation is an emotional experience game restricted by many factors.

2) The aesthetic forms of TV plays are diversified
   The art of TV drama exists in the context of information, globalization and commercialization. The
development of Chinese TV drama not only reflects the conflict of politics, economy and culture in contemporary China, but also has a complex and profound impact on the fashion, values and cultural trend of modern society. TV plays present a series of contradictory and unified artistic and cultural characteristics: not only the ideological and aesthetic nature of art, but also the material and consumption of commodities; both the compulsion and manipulation of the government, as well as the marketability and competitiveness; cultural homogeneity and artistic diversity; the type and individual creativity of modes; the entertainment and educational functions of popular culture.

(3) Consumerism representation of TV drama art
In the art production of consumerism, standardization and "false individualism" began to erode all fields of artistic creation, mainly reflected in the imitation of successful works. In consumerism, the definition of a successful work of art is whether it has made great achievements in business or not. It is not judged by aesthetic or historical standards. Therefore, in the process of many TV action creation at this stage, from producers to screenwriters and directors, they no longer attach importance to the "innovation" of the play's purpose, but attract public attention through some gimmicks, so as to seek benefits.

(4) The planarization and non depth of the artistic aesthetics of TV drama
The art of TV drama provides a lot of knowledge and information for people, which not only satisfies the fun of watching, but also affects people's aesthetic way. With the popularity of visual culture, it also unconsciously consumes people's patience for reading. When people quickly screen information, they are satisfied with superficial image thinking and ignore deep thinking, which can also be called the planarization and non depth of aesthetic activities.

(5) The lack of spirit brought by TV drama art
At present, the propaganda of material consumption and possession in TV plays leads to the audience's suspicion and even avoidance of spirituality. With the development of entertainment, people often neglect the spiritual value of TV plays. With the guidance of desire and the vigorous promotion of material consumption and possession, people gradually forget the other function of TV drama, that is, the function of spiritual satisfaction. TV dramas vividly show many concrete possibilities of material enjoyment and consumption, which greatly embody the objects of material pursuit.

4.2 Comparative Analysis of Traditional TV Drama and Online Drama Aesthetic Form from the Perspective of Big Data
This paper investigates the aesthetic forms of traditional TV dramas and online dramas by means of questionnaire, and then summarizes and analyzes the public's evaluation of both. The results are shown in Table 2 and Figure 2.

| Table 2. Comparison of aesthetic forms between traditional TV drama and online drama from the perspective of big data |
|---------------------------------------------------------------|
| **Aesthetic form** | **Openness** | **Topicality** | **Convenience** | **Diversity** |
|------------------|----------|-------------|----------------|-------------|
| Traditional TV series | 61       | 65          | 54             | 71          |
| Network drama    | 90       | 86          | 83             | 86          |
Figure 2. Comparison of aesthetic forms between traditional TV drama and online drama from the perspective of big data

This paper makes a comparative analysis of traditional TV drama and network drama, and the analysis content is carried out from the following four parts: TV drama aesthetic openness, topic, convenience and diversity. As can be seen from Table 2 and Figure 2, the traditional TV series scored 61 points in openness, 65 points in topic, 54 points in convenience and 71 points in diversity. On the other hand, the score of online drama is 90 in openness, 86 in topic, 83 in convenience and 86 in diversity. From the survey results of the aesthetic form of TV dramas, the public are more inclined to online dramas, because compared with TV dramas, online dramas have many advantages

(1) The way of playing is more open
TV plays are broadcast on the basis of radio and television network and traditional media. The broadcast form of TV plays determines the fragmentation and unidirectionality of traditional media television space and time. The rise of network media has a great impact on TV media. Because the network media is not limited by time and space, users can freely enter, which makes the initiative of TV drama transferred from the media to the public, and the broadcast mode is more open.

(2) The content is more topical
The basic idea of big data is to obtain useful information for market application through data collection and analysis, and serve for its needs. As far as TV plays are concerned, on the basis of ensuring their ideological and artistic quality, obtaining higher ratings is the primary goal. Compared with the traditional TV drama, it is more rich in content.

(3) Creation is more convenient
Under the traditional production mode of TV series, the producers are limited by the source of information, and the preferences and needs of the public are not clear. There are inevitably differences between the works and the needs of the public. In contrast, the creation of online drama is more convenient, and the aesthetic form of TV drama is inevitably affected.

(4) The thought is more pluralistic
Although there are many types of TV plays in China, their basic characteristics are still rooted in...
reality. It is also more obvious in the aesthetic style of daily life. After the Internet intervenes in the TV series, the network drama increases and develops rapidly. In this case, the characteristics of "Trinity" are bound to face new challenges in the aesthetic color of TV action and the original theme ideology. After that, a series of changes will be more free, diverse, inclusive and open.

5. Conclusions
From the perspective of big data, this paper analyzes the development trend of TV drama aesthetic form. In today's society, the aesthetic education function of TV plays can not be ignored. In order to meet the needs of the audience, many TV programs, especially those made to meet the needs of the market, have brought bad effects to the audience. However, with the improvement of the system and the improvement of people's appreciation level, people's vision of aesthetic expectation for TV plays has changed. People begin to pay more attention to the works with deep educational significance and higher aesthetic teaching value. The research results of this paper believe that the development of network drama has a great impact on the development of TV drama aesthetic form, we should pay attention to the development of network drama while developing traditional TV drama.

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