

Commentary Analysis of Chinese Network Novels Based on Wuxiaworld Website

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Abstract: Chinese network literature, as a "young and mature" Form of Chinese literature, has become an important media for Chinese literature to go to the world in the past 20 years since its development in 1998. The phenomenon of Chinese Network Literature's external communication has received extensive attention. The external communication of Chinese network literature is a kind of cross-cultural and trans-temporal communication behavior, so the research on the external communication of Chinese network literature obviously involves a variety of disciplines, such as literature, communication, Internet technology, economic management, etc. The rapid development of Chinese online literature in the past 20 years is enough to prove that it has become the pioneer of Chinese literature "going out" and the model of Chinese culture spreading abroad. At present, the world situation changed and how to make more people around the world know China is particularly important, network literature foreign spread in the aspects of increasing the world's people's understanding of China played an important role, according to different national output of different kinds and contents of the cultural values of network literature, optimal communication effect, has important significance. But due to the lack of quantitative analysis, this article is based on date of the Wuxiaworld website, using artificial intelligence, analyzing overseas readers' reading and emotional value of Chinese online literature, providing data analysis support for improving the external communication effect of Chinese network literature.

Keywords: Network Literature, External Communication, Web Novel

1. Introduction of Wuxiaworld

Wuxiaworld is a important way of spreading Chinese network literature abroad. Overseas readers in the Wuxiaworld website combine personal reading with public discussion, deeply involved in network novel creation, reading and discussing, giving reward and sponsorship, Promoting communication, etc. Overseas readers' love of China's network literature is transformed into the following comments of network literature, which realizes the localization reading of China's network literature works, constructs the community of overseas readers, and proves the remarkable effect of overseas communication of China's network literature.

Lai Jingping, a Chinese American, founded the Wuxiaworld website in 2014, which was sought after by a large number of foreign readers at the beginning of its establishment. On February 2, 2022, the Wuxiaworld ranked 5418th in the Alexa world website ranking, with nearly 270,000 page visits per day. The readers of the website come

from more than 100 countries and regions around the world. The top five countries are the United States, Tanzania, Venezuela, Australia and India, among which North American readers account for nearly 1/5 of the total.

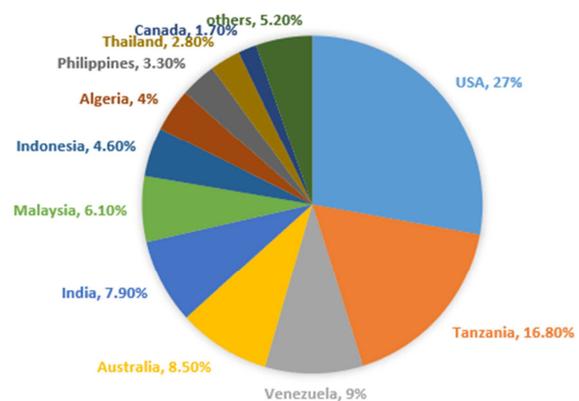


Figure 1. Country / region rankings and percentage of visits to the world martial arts website.

2. Basic Situation of Network Literature Data in Wuxiaworld Website

This paper collects 77 novel data from the Wuxiaworld website, and each novel data consists of eight first-level fields. Among them, review field consists of several reviews, each review consists of content, review ID, comments count and son review four sub-fields, respectively, indicating the content of the review, review ID, the number of responses and all responses; son review is composed of several responses.

2.1. Comments and Responses

According to statistics: In the 77 selected samples, the total

number of original comments is 6573, the average number of comments is 85, of which the maximum is 426, the minimum is 12.

From the dimension of the number of comments, as shown in Figure 2, there are five novels with original comments of more than 200, accounting for 6.49% of the sample novels. However, the reviews of these five novels account for 25.87% of the total reviews. There are 50 samples in which the original number of comments less than 85, accounting for 64.93% of the novel samples. It can be seen that fewer works get most of the comments, and most of the works have only a small amount of comments. It can be seen that the number of comments in network literature has formed a relatively obvious long tail distribution.

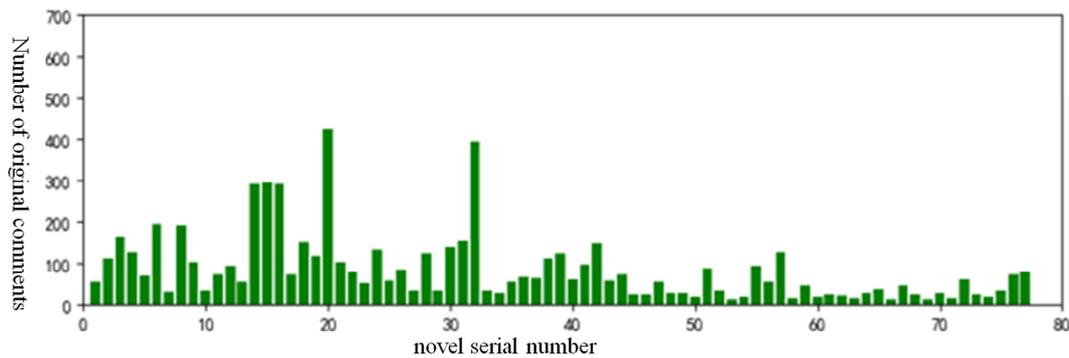


Figure 2. Number of original comments corresponding to novels.

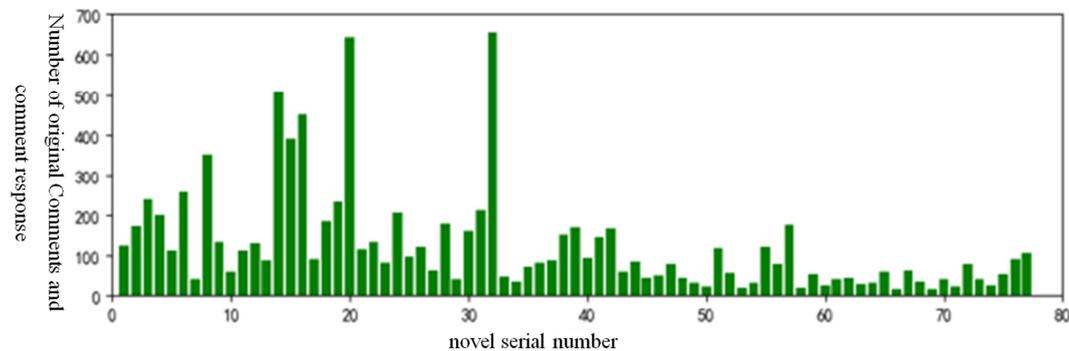


Figure 3. Total number of original comments and responses corresponding to the novel.

Meanwhile, the analysis is made from the total number of original comments and comments responses, as shown in Figure 3: The distribution of the total number of original comments and reviews and the number of original comments tends to be roughly the same, with an overall number of 9592, an increase of 45.93 per cent over the number of original comments. The average total number of reviews is 125, with a minimum of 17 and a maximum of 655. At the same time, combined with Figure 2, it can be seen that novels with the highest number of original comments received more comments and had an obvious head effect. This indicates that the higher the number of original comments in online literature, the more attention and discussion it will get.

2.2. Labels

According to statistics: the number of labels corresponding to

the novel, up to 11, at least 1; there are 27 categories of labels corresponding to novels. The largest category corresponds to 63 novels, and the smallest category corresponds to 1 novel.

Firstly, from the dimension of the number of labels, as shown in Figure 4, the average number of labels corresponding to the novel is 5, and there are 48 novels with more than 5 labels, accounting for more than 62%, indicating that the novels in the Wuxiaworld network literature present the trend of diversified definition of labels and multi-style integration of content. In addition, combined with Figure 3, it can be seen that the top three novels in the total number of original comments and comment responses are '20', '32' and '14', and the corresponding number of tags is 5, 9 and 8, respectively. The number of labels of the three exceeds the average, indicating that there is a certain connection between the heat of comment response and the corresponding number of tags.

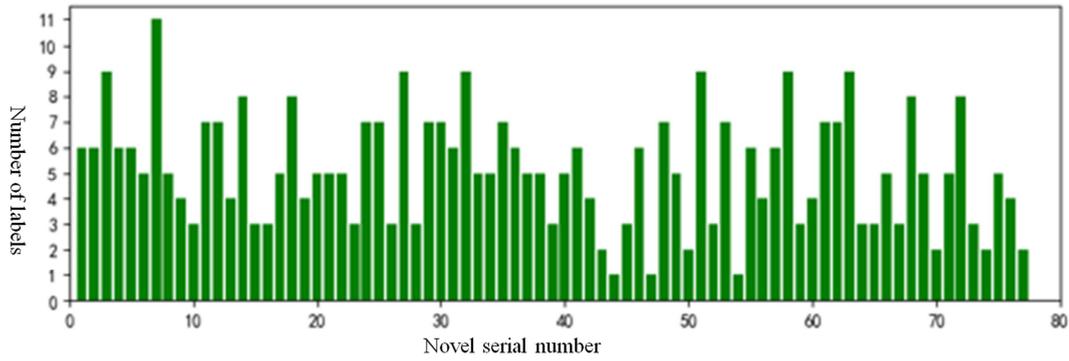


Figure 4. Number of labels corresponding to novels.

At the same time, the novel labels are analyzed in terms of the number of novels, as shown in Figure 5. The top three labels are "Action", "Fantasy" and "Xuanhuan", indicating Action, Fantasy and Fantasy respectively. The bottom three tags in terms of the number of novels are "Pets", "Cheat System" and "Harem", which refer to Pets, cheating System and Harem respectively. Obviously, The mainstream network literature in the Wuxiaworld website continues the adventure fighting style of famous works such as Jin Yong and Gu long, and caters to the public taste. However, with the development of the times and the diversification of people's spiritual needs, novels with seeking novelty have gradually emerged.

3. Data Analysis of All Novels in Wuxiaworld Website

3.1. Analysis of All Novel Data Word Cloud Pictures in Wuxiaworld Website

The word cloud image can intuitively represent the word frequency distribution of keywords in the corresponding text data, and has a good discrimination for words with large differences in word frequency. [1] By using different colors and sizes to represent the relative importance of different levels, the higher the frequency of mentioning the corresponding words is, the larger the font is. [2]

In order to better analyze the hotspots of the novel, this paper uses WordCloud tool in Python to draw word cloud images. Among them, the underscore '_' is used to replace the original space key in the keyword, making the keywords of more than two words become a string, avoiding the same keyword being mistaken for two. In addition, for long text that cannot determine keywords directly, keyword extraction is needed before word cloud drawing. The key word extraction steps of word cloud drawing in this paper are as follows: Firstly, Python programming is used to search keywords in the long text in the sample space. [3] Then, the words that have no meaning in the hotspot analysis in the original keywords are cleaned up; and then the keywords with obviously the same or similar semantics are combined into the same word; finally, the display lower limit is set, and

the words with frequency higher than the display lower limit are extracted as the final keywords. Each graph shows up to 1000 keywords.

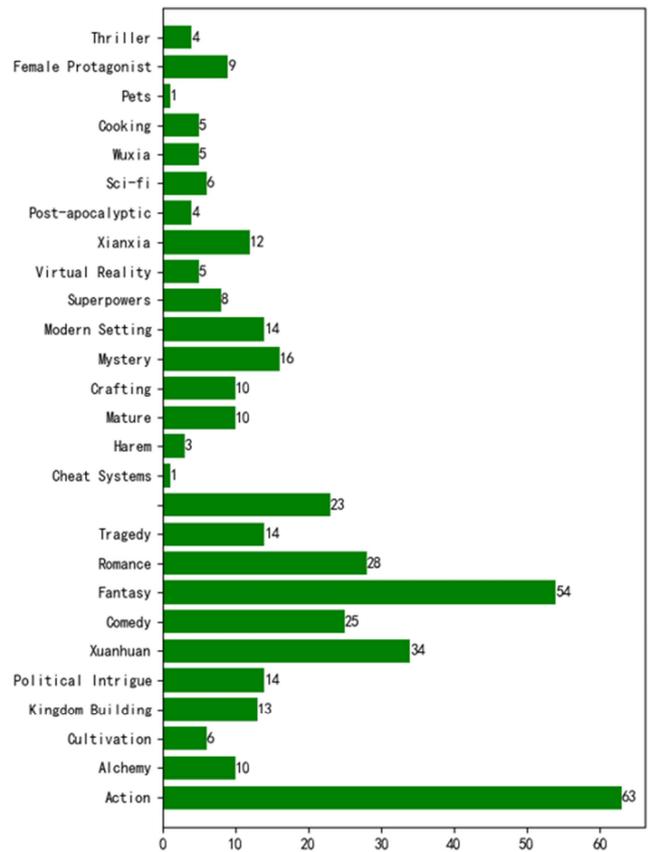


Figure 5. Number of novels corresponding to novel labels.

The labels of 77 novel samples are directly drawn into word cloud map, as shown in Figure 6. Topping the list was "Action", used 63 times; The second was "Fantasy" with 54 occurrences. The third was "Xuanhuan", which appeared 34 times. Fourth was "Romance" (28). "Comedy" came in fifth with 25 appearances. This shows that the five labels of "action, fantasy, fantasy, romance and comedy" are frequently used in network literature and are the mainstream style of current network literature. This conclusion is consistent with the results shown in Figure 5.



Figure 6. All tag word cloud images.

The names of 77 novels are extracted by the above keywords, and then the word cloud is drawn as shown in Figure 7. The first word was 'Immortal', which appeared five times; the second is 'God', which appears four times; among them, 'Dragon, Sword, Soul, Heaven, Emperor, Realm' appeared three times. This shows that the words 'immortality, God, dragon, sword, soul, heaven, monarch, realm' appear more frequently in the title. This kind of vocabulary has the bright strong symbol and the fantasy color, conforming to the male reader's reading preferences, indicating that the Wuxiworld network literature platform reader male accounts for more. [4] At the same time, according to the general literature setting, these five words are often associated with the high frequency label 'action', 'fantasy' and 'fantasy' in the graph, which reflects the current hot spots of network literature from the side.



Figure 7. Cloud pictures of all book nouns.



Figure 8. Word cloud results of all original comments.

Figure 8 is the word cloud map drawn after extracting keywords from all original reviews. The first word was 'story', which appeared 6742 times. The second is 'character', a total of 5853 times; the third is 'chapter', a total of 3749 times; the fourth is 'author', a total of 3744 times; the fifth is 'novel', a

total of 3039 times. This shows that the five words 'story, character, chapter, author, novel' appear frequently in readers' original comments. It can be seen from these five keywords that readers pay more attention to the plot and role setting of the novel, and are prone to produce positive or negative comments on the novel authors due to the emotions triggered in reading.

Figure 9 shows the word cloud after extracting keywords from all the original comments and comment replies. Topping the list was "story", with 7,183 occurrences; the second was "character" (6,147 occurrences). The third was "Chapter", which appeared 4152 times; The fourth is "author", which appears 4,152 times; The fifth was "Novel", with 3,389 occurrences. These high-frequency words are the same as those in Figure 8, indicating that the comments on the novel are roughly centered on the topic of the original comments.



Figure 9. The word cloud results of all original comments and comment responses.

3.2. Analysis on the Data Theme of All Novels in the Wuxiworld Website

Different from the traditional written text, the original commentary and the reply text of the novel are written freely, with non-standard grammar, large amount of network language, symbolic language and new words, and high data noise, which makes the text matrix sparse and high-dimensional. [5]

Applied topic model is a hot research field in text mining in recent years. Among them, The LDA topic model has excellent ability of dimension reduction, which can reduce the original high-dimensional word space to a relatively small topic space composed of a group of topics, which helps to dig out the implied correlation and excavate the internal information of the text set more fully. [6] In addition, compared with the text analysis method based on grammar rules, LDA excavates the potential semantic structure through the probability and statistics of word co-occurrence in the text, which is more suitable for the modeling and analysis of comment network texts with a large number of grammatical irregularities. [7]

In order to understand the semantic and thinking mode hidden behind the original comments and comment response texts of the novel, the theme hotspots and cross-cutting situations in the field of network literature are visually displayed. According to the data characteristics of this kind of text, this paper uses LDA topic model to conduct topic

clustering analysis on the original comment and comment response texts of novels. The larger the clustering contour value is, the more reliable the topic is. Therefore, the credibility is set. When the clustering contour value is greater than the credibility, it is considered that the hot topic extracted by the clustering is effective. [8] In addition, compared with the text analysis method based on grammar rules, LDA excavates the potential semantic structure through the probability statistics of the number of words co-occurrence in the text, which is more suitable for the modeling and analysis of comment network texts with a large number of grammatical irregularities.

In order to understand the semantics and thinking mode hidden behind the original comments and comment reply texts of the novel, and intuitively show the hot topics and cross situations in the field of network literature.

According to the data characteristics of this kind of text, this paper uses LDA topic model to cluster the original comment and comment reply text of the novel. The larger the clustering contour value is, the more reliable the clustering topic is. [9] Therefore, set the credibility. When the cluster contour value is greater than the credibility, it is considered that the hot topics extracted by the cluster are effective.

Through classification, the original comment topic clustering results of all samples are obtained, as shown in Figure 10. Set the reliability to 10%. As can be seen in Figure 10, the cluster numbers with cluster contour value greater than 10% are: 3, 5 and 8. Therefore, three hot topics of the original comments of 77 novel samples are excavated. The hot topic contents corresponding to the three numbers are interpreted below:

Topic 1 (cluster number 3): the key words involved are: "cultivation, strength, level, enemy, battle, stronger, arrogant, powerful, murder, strong". Combined with the analysis of lexical semantics, comment situation and cluster distribution, it is considered that this kind of comment theme is "Fantasy Fairy theme". Novels with this kind of theme mainly tell the story of the protagonist changing his fate due to adventure and his own efforts under the setting of mysterious and illusory background. Therefore, the Fantasy Fairy novels with illusory and pleasure are one of the hotspots of the network literature of the platform, which are easy to be loved and discussed by readers.

Topic 2 (cluster No. 5): the key words involved are: "character, character, novel, main, cultivation, slight, love, development, feeling and recommendation". Combined with lexical semantics, comment situation and cluster distribution, it is considered that this kind of comment topic is "character setting evaluation". The character, behavior and occupation of the main characters will greatly affect the readers' evaluation of the novel. If a novel has a very popular character image, it is easy to be recommended and pursued by the readers.

Topic 3 (cluster No. 8): the keywords involved are: "chapter, author, plot, bad, comment, beauty, repetition, translation, time". Combined with lexical semantics, comment situation and cluster distribution analysis, this kind of comment topic is "writing quality evaluation". As a network literature spreading to the outside world, the plot, translation quality and update speed of the novel are very important. Readers often put

forward suggestions to the author from these aspects in their comments.

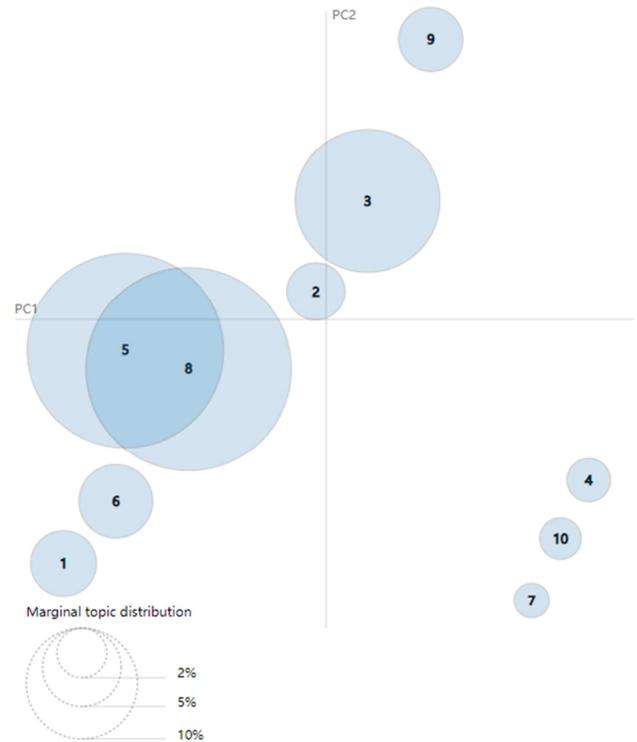


Figure 10. Topic clustering results of all original comments.

The subject clustering results of all original comments and comment replies are shown in Figure 11. Set the reliability to 10%. As can be seen from Figure 11, the cluster numbers with cluster contour value greater than 10% are: 1, 2, 5 and 6. Therefore, all original comments and four hot topics of comment replies of all novel samples are excavated. The hot topics corresponding to the four numbers are interpreted below:

Topic 1 (cluster No. 1): the key words involved are: "character, character, cultivation, main, story, novel, development, architecture, protagonist, system". Combined with the analysis of lexical semantics, comment situation and cluster distribution, it is considered that this kind of comment theme is "farming system theme". Novels with this kind of theme mainly tell the story of the protagonist's happy life due to his adventure. Different from the Fantasy Fairy theme, this kind of novel has few fighting plot descriptions, and more is the display of leisure life such as scenery, food, career and love. The writing is smooth and natural, so that readers can relax in it. It can be seen that the novels with the theme of farming system are also one of the hotspots of network literature in the Wuxiaworld website.

Topic 2 (cluster No. 2): the key words involved are: "story, chapter, author, novel, comment, plot, love, recommendation, translation and enjoyment". Combined with the analysis of lexical semantics, comment situation and cluster distribution, it is considered that this kind of comment topic is also "writing quality evaluation".

Topic 3 (cluster No. 5): the key words involved are:

"boredom, chapter, repetition, guy, kill, stupidity, shit, arrogance, master". Combined with the analysis of lexical semantics, comment situation and cluster distribution, it is considered that this kind of comment topic is "negative evaluation". When readers are disgusted with a novel, typical negative and insulting words will appear in the comments.

Topic 4 (cluster No. 6): the key words involved are: "plot, strength, bad, author, life, strength, level, battle, enemy, recommendation, start". Combined with the analysis of lexical semantics, comment situation and cluster distribution, it is considered that this kind of comment theme is "Fantasy Fairy theme".

Summarizing the hot topics in Figure 10 and Figure 11, it is found that readers of Wuxiworld network literature mainly focus on the theme background, role setting and writing quality of the novel. Readers' comments often focus on these three aspects, and will have strong subjective feelings at the same time. In addition, the main purpose of online literature reading is to relax yourself, get rid of the pressure of real society and seek illusory emotional sustenance. Therefore, the novel style of illusion, pleasure and lightness is easy to be loved by the public, which is a hot spot in the field of network literature. [10]

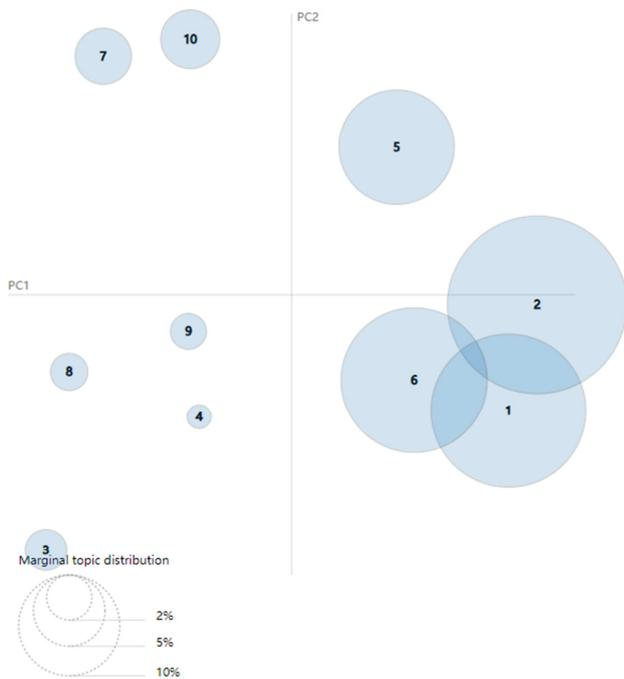


Figure 11. Subject clustering results of all original comments and comment replies.

3.3. Emotional Analysis of All Novels in the Wuxiworld

Comment information expresses people's various emotional colors and emotional tendencies, such as joy, anger, sadness, joy, criticism, praise and so on. By analyzing the subjective emotional color of the comment text, we can understand the public opinion's view on an event or product. [11] Because the comment information is usually massive, it is difficult to deal with it only by manual methods, and it is not persuasive. Therefore, we need the help of computer to analyze, process,

summarize and reason these subjective evaluation texts with emotional color. This process is called text emotion analysis. Based on the model of deep learning training, this paper automatically distinguishes emotional tags from comment texts. The model is trained on a large number of other social comment text samples, involving four steps: emotional information extraction, classification, retrieval and induction.

The original comment emotion analysis results of all samples are shown in Figure 12. Among the 6567 original comments, 3476 were positive, accounting for 52.93%; 1973 negative comments, accounting for 30.04%; 1118 neutral comments, accounting for 17.02%. Overall, positive comments account for nearly 50% and are dominant, while negative comments account for nearly 30%. The ratio of the two is 1.76:1, and the number of neutral comments is the least. Explains that most of the original comments are well received on the Wuxiworld web literature platform.

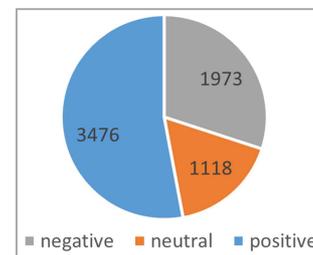


Figure 12. Emotional analysis results of all original comments.

The emotional analysis results of a novel account for more than 50% of the emotional labels in the emotional analysis of all reviews of the novel. The emotional analysis results of 77 novel samples based on the original comments are shown in Figure 13. Among them, there are 54 novels with positive comments accounting for more than 50%, 22 novels with negative comments accounting for more than 50%, and only one novel with neutral comments accounting for more than 50%.

Figure 14 converts the above quantitative relationship into proportional relationship. Among the 77 samples, novels dominated by positive comments account for 70.1%, novels dominated by negative comments account for 28.6%, and novels dominated by neutral comments account for 1.3%. After analysis, it can be concluded that more than 70% of the online novels have been highly praised, indicating that the novels of the online literature platform of the Wuxiworld are more likely to be welcomed by readers when they are just launched.

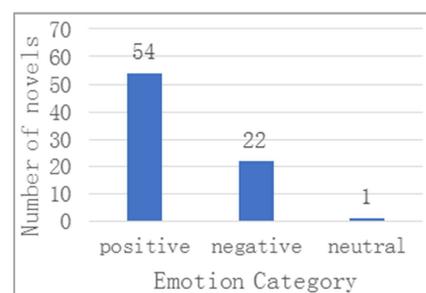


Figure 13. Emotional analysis results of all novels (based on statistics of emotional analysis results of all original reviews).

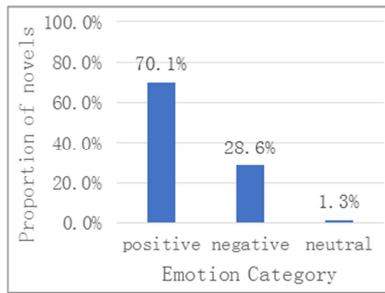


Figure 14. Percentage of emotional analysis results of all novels (based on the emotional analysis results of all original comments).

The emotion analysis results of all original comments and comment replies are shown in Figure 15. Among the 9551 comments, 4140 were positive, accounting for 43.35%; 3033 negative comments, accounting for 31.76%; 2378 neutral comments, accounting for 24.90%. Overall, positive comments account for more than 40% and are dominant, while negative comments account for nearly 30%, with a ratio of 1.36:1. Neutral comments accounted for the least. Compared with the emotional analysis results of the original comments in Figure 12, the proportion of positive comments decreased by 9.58%, while the proportion of negative comments and neutral comments increased by 1.72% and 7.88% respectively. This phenomenon shows that there are more negative and neutral comments in the follow-up comments.

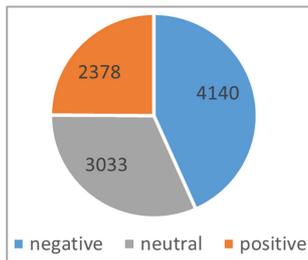


Figure 15. Emotional analysis results of all original comments and comment replies.

The emotional analysis results of 77 novel samples based on all original comments and comment replies are shown in Figure 16. Among them, 46 novels have positive comments accounting for more than 50%, 27 novels have negative comments accounting for more than 50%, and 1 novel has neutral comments accounting for more than 50%. Figure 17 converts the above quantitative relationship into proportional relationship. Among the 77 samples, novels dominated by positive comments account for 59.7%, novels dominated by negative comments account for 35.1%, and novels dominated by neutral comments account for 5.2%. Compared with figure 14, the number of novels with positive comments decreased by 10.4%, the number of novels with negative comments increased by 6.5%, and the number of novels with neutral comments increased by 3.9%. After analysis, we can see that most of the novels on the network literature platform of Wuxiaworld are highly praised in the early stage, and the evaluation of later novels will decline to a great extent. This phenomenon reflects that the network literature platform of

Wuxiaworld may have the phenomenon of early brush praise of works. In addition, due to the herd effect of readers' evaluation of the novel, the negative original comments of the novel may bring more negative comments.

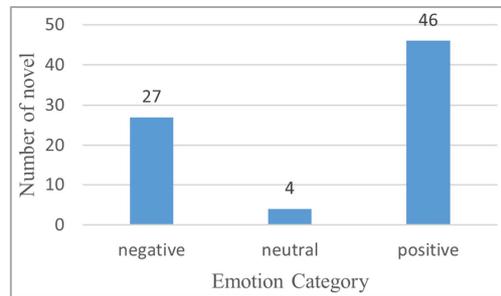


Figure 16. Emotional analysis results of all novels (Statistics of emotional analysis results based on all original comments and comment replies).

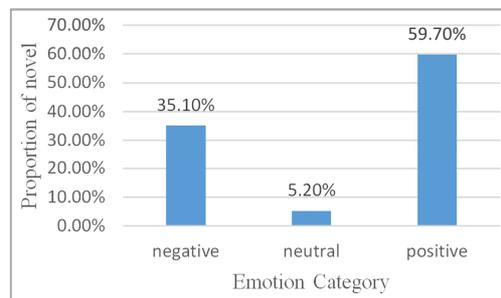


Figure 17. Percentage of emotion analysis results of all novels (statistics based on emotion analysis results of all original comments and comment replies).

4. Data Analysis of Typical Novels in the Wuxiaworld

This paper selects a typical novel for analysis. The typical novel is the novel with the largest number of original comments and comment replies. Therefore, this paper selects "Against the Gods" as a typical novel for analysis.

4.1. The Word Cloud Analysis of Data Analysis of Typical Martial Arts Novels in the World

After extracting keywords from the original comments of typical novel samples, The first word is "character", which appears 368 times; The second is "story", which appears 363 times; The third is "Che", which occurs 340 times; The fourth is "Yun", which appears 299 times; The fifth is "plot", which appears 229 times. This shows that the words "character, story, che (person's name), cloud (person's name), plot" appear frequently in the comments of typical novels.

Among them, "Yun Che" is the heroine name of the typical novel "Against the Gods", which is very popular with readers, so it is mentioned frequently in the comments. This shows that once the reader has emotional connection and resonance with the characters in the works, it will give the reader an empathic object of emotion, identity and value identification, generate great favor in the reader's heart, and pursue the novel characters as stars.

4.2. Data Analysis and Theme Analysis of Typical Novels in the Wuxiaworld

The topic clustering results of all original comments are shown in Figure 18. Set credibility to 10%. As can be seen from Figure 18, the cluster numbers whose cluster contour value is greater than 10% are: 6, 8 and 10. Therefore, three hot topics of typical novel original comments are mined. Topic 1 (Cluster No. 6): The keywords involved are: "author, plot, power, God, story, woman, role, harem, chapter, reason". Based on the analysis of lexical semantics, comment situation and clustering distribution, it is concluded that the theme of this kind of comment is "Mysterious fairy theme".

Topic 2 (Cluster No. 8): The keywords involved are: "chapter, story, author, love, plot, recommendation, surprise, woman, time, start". Based on the analysis of lexical semantics, comment context and clustering distribution, it is concluded that the topic of this kind of comment is "writing quality evaluation".

Topic 3 (Cluster No. 10): The keywords involved are: che (name), Yun (name), characters, characteristics, novel, protagonist, chapter, reader, Chinese. Combined with lexical semantics, comment context and clustering distribution, this kind of comment theme is "story plot evaluation".

Figure 19 is the result of topic clustering for all original comments and comment responses. Set confidence to 10%. As can be seen from Figure 19, the cluster numbers whose cluster contour value is greater than 10% are: 4, 6, 9 and 10. Therefore, four hot topics of typical novel original comments are mined.

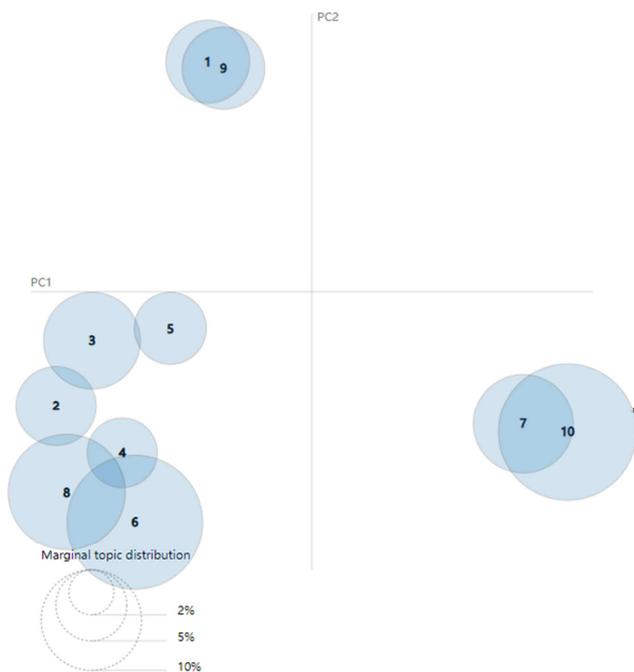


Figure 18. Topic clustering results for all original comments.

Theme 1 (Cluster No. 4): The keywords involved are: che (person's name), Yun (person's name), character, novel, viewpoint, love, harem, China, plot, reader. Harem, originally refers to the ancient Chinese emperor's wives and concubines live in the place, or for the monarch's wives and concubines.

But now derivative refers to the idea that a single character in a novel has multiple relationships at the same time. Based on the analysis of lexical semantics, comment context and clustering distribution, it is concluded that the topic of this kind of comment is "emotional relationship discussion".

Theme 2 (Cluster No. 6): The keywords involved are: "Che (name), Cloud (name), story, destruction, character, chapter, harem, romance, immortal". Combined with lexical semantics, comment situation and clustering distribution, this kind of comment theme is considered to be "Mysterious fairy theme".

Theme 3 (Cluster No. 9): The keywords involved are: "Plot, author, woman, stupid, armor, story, repetition, character, harem, bad". Combined with lexical semantics, comment context and cluster distribution analysis, the theme of this kind of comment is "role setting evaluation".

Theme 4 (Cluster No. 10): The keywords involved are: "Story, chapter, author, plot, novel, power, character, plot, love, cultivation". Combined with lexical semantics, comment context and clustering distribution, this kind of comment theme is "story plot evaluation".

Based on the analysis of hot topics in Figure 18 and Figure 19, it can be found that this typical novel belongs to the classic fantasy Xiu Xian Shuang wen, and readers are easily attracted by the plots and emotional disputes between characters of this kind of novel, resulting in heated discussions.

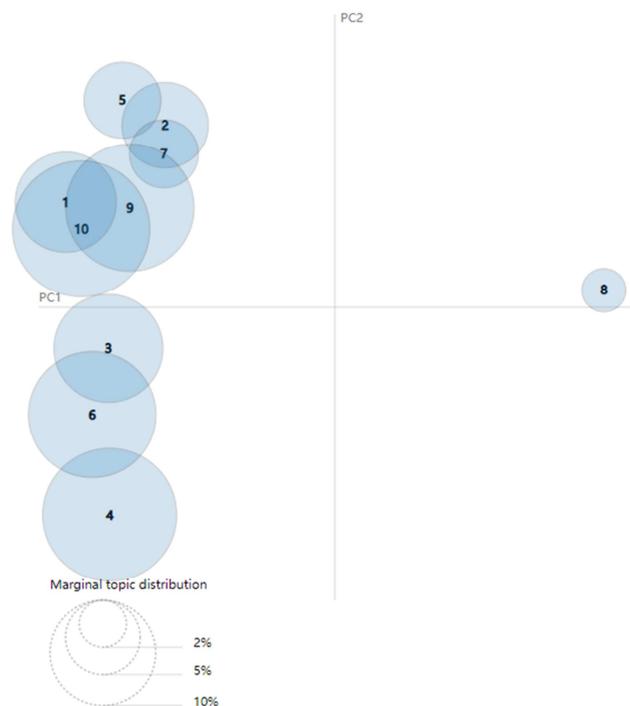


Figure 19. Topic clustering results for all original comments and comment replies.

4.3. Data Analysis of Typical Novels in the Wuxiaworld and Emotion Analysis

As shown in Figure 20, a statistical analysis is made on the emotion of 393 original comments on typical novels in Wuxiaworld website, of which 225 are positive comments, accounting for 57.25%. 89 negative comments, accounting for

22.64%; There were 79 neutral comments, accounting for 20.10%. In general, positive comments dominate, while negative comments are relatively rare, with a ratio of 2.52 to 1, and neutral comments are the least. It shows that there are more positive original comments on typical novels.

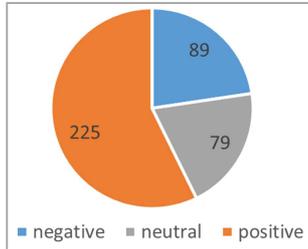


Figure 20. Sentiment analysis results for all original comments.

In Figure 21, the emotions of all original comments and comment responses in typical novels are analyzed. The total number of data is 651, among which 265 are positive comments, accounting for 40.71%. There were 196 negative comments, or 30.11%; There were 190 neutral comments, accounting for 29.19%. The overall proportion is similar to the result in Figure 20. Positive comments are still dominant, negative comments are few and neutral comments are the least. But the percentage of positive reviews dropped by 16.54%; Negative reviews rose 7.47%; The proportion of neutral comments rose 9.09%. From this phenomenon, the overall evaluation of typical novels will also decline compared to the original evaluation.

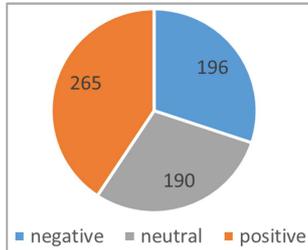


Figure 21. Sentiment analysis results for all original comments and comment responses.

5. Conclusion

In order to study the external communication effect of Chinese online literature, this chapter conducts data mining analysis on the online literature platform of Wuxiaworld based on 77 novel samples collected. [12] Firstly, the composition pattern of the dataset is introduced, and the data distribution of sample comment text and style label is analyzed. Secondly, data analysis is conducted based on the comment text of all samples, focusing on the typical sample data features with the largest number of comments. [13]

The massive amount of comment information is difficult to process by manual methods alone, so the assistance of computers is needed. The Python word cloud tool is used to obtain the key words and corresponding word frequency distribution of the comment text, and filter a large amount of noise to understand the main idea of the text. LDA theme

model is used to explore the semantic and thinking mode hidden behind the review text, and to summarize the hot topics and cross situations of the review. Based on the emotional model obtained from deep learning training, the subjective emotional color of the review text is inferred to understand readers' opinions on online literature works. [14]

Through sample analysis, it can be found that the novels in the network literature of Wuxiaworld show a trend of multi-label definition and multi-style content fusion. Illusory, fast perceptual, relaxed novel style is easy to be sought after by the public, action fantasy has become the most popular theme. Readers mainly pay attention to the background of the novel, the setting of characters and the quality of writing, and they will have strong subjective feelings in their comments.

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