

Analysis of the Internet Reviews of The Wandering Earth 2 in China and America Based on Hofstede's Cultural Dimensions

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Abstract: Films are carriers of a country's culture, thus building a powerful film country is to build a strong cultural country. In this context, ensuring the smooth sailing of Chinese films is of great significance. Taking *The Wandering Earth 2* as an example, this research builds a cultural dimensional model of films' communication effects under Hofstede's cultural dimensions. Based on a self-built corpus of reviews which contains 200 most heated comments from the Internet Movie Database (IMDb) and Douban, the research applies an original codebook consisting of 12 two grade indicators to rationalize audience's cultural sensing. It is found that the sensing of Chinese viewers on the four dimensions averagely higher than the ones of American viewers, while the long-term orientation provides a possible common ground in both sides. The differences in the audience's internet reviews of *The Wandering Earth 2* give a clue to the needs of "soft landing", "hard core" and "human touch", which Chinese films should well adopt as the key capabilities in cross-cultural diffusion.

Keywords: *The Wandering Earth 2*, Hofstede's cultural dimensions, cross-culture communication effects, internet reviews

1. Introduction

The Wandering Earth 2 was shown during the period of the Chinese Spring Festival, from January 21st to February 22nd, 2023, and achieved an impressive box office of 38.6 billion yuan [1]. The movie was shown in north America almost at the same time and has received a great amount of attention and media exposure which helped a lot in attracting oversea fans. The box-office has exceeded 5 million US dollars in total, way beyond movies like *Wolf Warrior 2* and *Operation Red Sea*, basically equals to the first movie of this series [2].

The Internet Movie Database (IMDb) is Amazon's database of movies and TV shows, which was first established in October 1990 in the United States. IMDb includes a vast collection of films and TV programs and the viewers' comments which can clearly reflect the oversea viewers especially American viewer's recognition and preference. Similarly, Chinese website Douban started with reviews of books, films, TV programs and music and has become a major hub for Chinese movie fans. Up to now, more than one million people have graded *The Wandering Earth 2* on Douban, and more than 500,000 people have left their reviews. The research was based on IMDb and Douban,

collecting the 100 most heated comments separately from the two platforms that were left from the date when the movie was released on screen until May 1st, 2023, to build a miniature database of reviews. The comments which were originally in the most heated 100 but left without a grade was skipped to make sure that all 200 comments collected are with a corresponding grade.

The culture background of the viewers is an important independent variable of the effect of cross-culture communication. In the 1980s, Dutch scholar Geert Hofstede developed and refined the Hofstede's culture dimensions based on the investigation on the employees of multinational corporation IBM. The dimensions include six dimensions: power distance, uncertainty avoidance, individualism and collectivism, masculinity and femininity, long-term and short-term orientation and indulgence and refrain. They were aimed to divide people into different social cultural groups based on geological factors at first [3].

This research attempts to understand both Chinese and American audience' reviews on *The Wandering Earth 2* under the perspective of Hofstede's cultural dimensions. After comparing the Chinese and American Hofstede's cultural dimensional statistics in 2015 and having a thorough understanding of the content of both the movie text and the reviews, an open code table with 12 specific indicators was formed. The research uses SPSS 26.0 to conduct descriptive statistics and multi-factors linear regression, trying to answer the following questions:

- (1) What's the differences between the Chinese and American reviews on *The Wandering Earth 2* in the perspective of Hofstede's cultural dimensions?
- (2) How do the differences of Hofstede's cultural dimensions effect the ratings of Chinese audience and American audience on *The Wandering Earth 2*?

2. Literature Review

Films are carriers of a country's culture, and they can lift the national image while reflecting the time and national spirit, therefore playing a crucial role in cross-cultural communication [4,5]. Under the context of the constant process of globalization and the "export" of Chinese culture, films and TV programs put on screen oversea have become an important method to spread Chinese culture [6,7].

Nowadays, the international communication of Chinese movies has reached an age which is characterized by a "globalized influence" as its prominent feature. It is vital to meet with the demand of the strategic needs of the nation and the realistic consideration to enhance the soft power of China [8]. With the rapid development of film industry and the incarnation of *A Number of Observations on the Promotion of the Development of Science Fiction Films* and *The Development planning of Science Fiction Films for the 14th Five-Year*, empowered by the technology and enabled by the policy, science fiction has met with new opportunity [9]. By using excellent indigenous science fiction works such as *The Wandering Earth*, it is much more likely to arouse the imagination of the future in the entire humankind [10]. Chinese movies should leverage this genre's potential to promote cross-cultural communication and overcome "the anxiety of recognition" [11].

Based on the existing papers, the research of the overseas publicity of films in the past focus on long-term macro research with a large scale, emphasizing on the news report and framework analysis, focusing on the evaluation on the overseas main-stream media and social media, but not enough on the acceptance of overseas audience [12-15]. Non-structural film review websites which reflect different feelings about films and divers understanding are usually neglected [16].

As an important text which projects the imagination of national geography and reflects the geo-relations between states, the cross-cultural communication of films is a process of different groups compiling and understanding the content of films [17,18]. Therefore, the communication effects of films are influenced by the differences of value system and cultural concepts of the two sides. Hofstede has provided the data on different countries, surpassing the limitation of the cross-culture research of Kluckhohn and others who stopped at concepts and views [19]. His theory has been widely

used in cross-culture research in the fields of business dealing, brand loyalty and business accountability [20]. Nowadays, research on cross-culture communication of films using Geert Hofstede's cultural dimensions model is still limited in quantity and there is not much focus on measuring and analyzing the originality of film review content. This article tries to find another way of research based on other's and compare the difference of sensing on four dimensions between Chinese audience and American audience to verify the prediction of cultural dimensions model and to explain the efficiency of the comments left by Chinese viewers and American viewers on *The Wandering Earth 2*.

3. Methods

Chinese culture and American culture are different to each other in many dimensions: American culture is low in power distance, prevalent in individualism and emphasizes on a short-term outlook; Chinese culture is high in power distance in which collectivism and long-term orientation is generally preferred by the society [21]. The researcher has chosen to measure viewers' perceptions by comparing the scores of Chinese and American viewers in 2015 version of Hofstede's cultural dimensions data. According to Table 1, four dimensions, including the power distance, individualism, long-term orientation and short-term orientation, indulgence and refrain in which the difference between the results produced by the viewers of two countries are relatively obvious.

Table 1: Sino-U.S. six cultural dimensions score [22].

independent variable	Sino-U.S. score
Power distance (pdi)	80-40
Individualism (idv)	20-91
Masculinity (mas)	66-62
Uncertainty avoidance (uai)	30-46
Long/short-term orientation (ltowvs)	87-26
Indulgence/refrain (irv)	24-68

The factors including the theme, dialogue, roles and the story of the film, are combined with relations between roles. Based on thorough understanding of the reviews of Chinese and American, the researcher builds an ingenious quantitative system with 12 indicators, including distribution of power, exercise of power, power oppression, personal fulfillment, organizing frame and etc., The specific meaning and principles of ratings were clarified, and an open codebook like Table 2 was formed.

Table 2: Indicator system and ratings principles.

One Grade Index	Two Grade Index	Meaning	Principle of ratings
Power Distance	Distribution of Power	The distribution of power within different social groups	1="equal",2="medium",3="injustice"
	Exertion of Power	The program logic to exert their power of the dominant class	1="regular",2="medium",3="random"
	Oppression of Power	The society's degree of exclusion of vulnerable groups	1="slight",2="medium",3="serious"
Individualism / Collectivism	Individual Accomplishment	The priority of individual accomplishment	1="principle",2="medium",3="secondary"
	Social Relation	The person to person, person to group, and group to group relationship	1="aloof",2="medium",3="close"
	Frame Organization	The dominance relationship between members in social organizations	1="lose",2="medium",3="tense"
Long/ short-term Orientation	Benefit Orientation	The preference on the time to fulfill the material and emotional demand	1="present",2="medium",3="future"
	Time of Decision-making	The time range of decision-making	1="short-term",2="medium",3="long-term"
	The Imagination of the Future	The prediction and plan for the future	1="flexible",2="medium",3="meticulous"
Indulgence/ Refrain	The Intensity of Activity	The intensity of a certain activity	1="intense",2="medium",3="proper"
	Emotional Expression	The lead off of emotions	1="extroverted",2="medium",3="conservative"
	Desire Fulfillment	The pursue after basic need and wanting	1="adequate",2="medium",3="inadequate"

The research builds a miniature database of reviews which contains 200 most heated comments collected separately from IMDb and Douban until May 1st, 2023, each piece of review consists of the words and a corresponding grade. All reviews on IMDb and Douban come with a grade from the reviewer. IMDb rates a film with a number from 1-10 while Douban rate it by giving it stars, the “full score” is five stars. Researcher united all ratings systems to use the 10-points system by the regular expression of the html source code of the web page. For the words of the reviews, 12 statement separators are set based on the feature of the corpus. After natural language processing using Python, 16493 pieces of Chinese clauses and 2128 English clauses were acquired in total.

The rating is a direct reference to the communication effects while the review reflects all kinds of views from the audience straightforwardly or conservatively. Taking this as the premise, the research takes the rating as the dependent variable and the four one grade indicators as the independent variables. Among them, the one grade indicators were worked out from calculating the average of variables in this dimension.

The research first tried to analyze whether *The Wandering Earth 2* aroused a relatively similarly cultural recognition among Chinese and American audience, namely whether Chinese and American audience are obviously different in terms of the four dimensions of the evaluations and analyze how the cultural dimensional sensing affects their ratings on the film.

Considering the inclination of Chinese audience on cultural dimensions, the research has brought the following hypotheses.

H1: Chinese audience’ sensing of high-power distance is obviously positively correlated to their ratings of the film.

H2: Chinese audience’ sensing of collectivism is obviously positively correlated to their ratings of the film.

H3: Chinese audience’ sensing of long-term orientation is obviously positively correlated to their ratings of the film.

H4: Chinese audience’ sensing of refrain is obviously positively correlated to their ratings of the film.

Correspondingly, the research has developed following hypotheses for American audience.

H5: American audience’ sensing of high-power distance is obviously negatively correlated to their ratings of the film.

H6: American audience’ sensing of collectivism is obviously negatively correlated to their ratings of the film.

H7: American audience’ sensing of long-term orientation is obviously negatively correlated to their ratings of the film.

H8: American audience’ sensing of refrain is obviously negatively correlated to their ratings of the film.

Therefore, the research has built a cultural dimensional model of films’ communication affect shown as Figure 1.

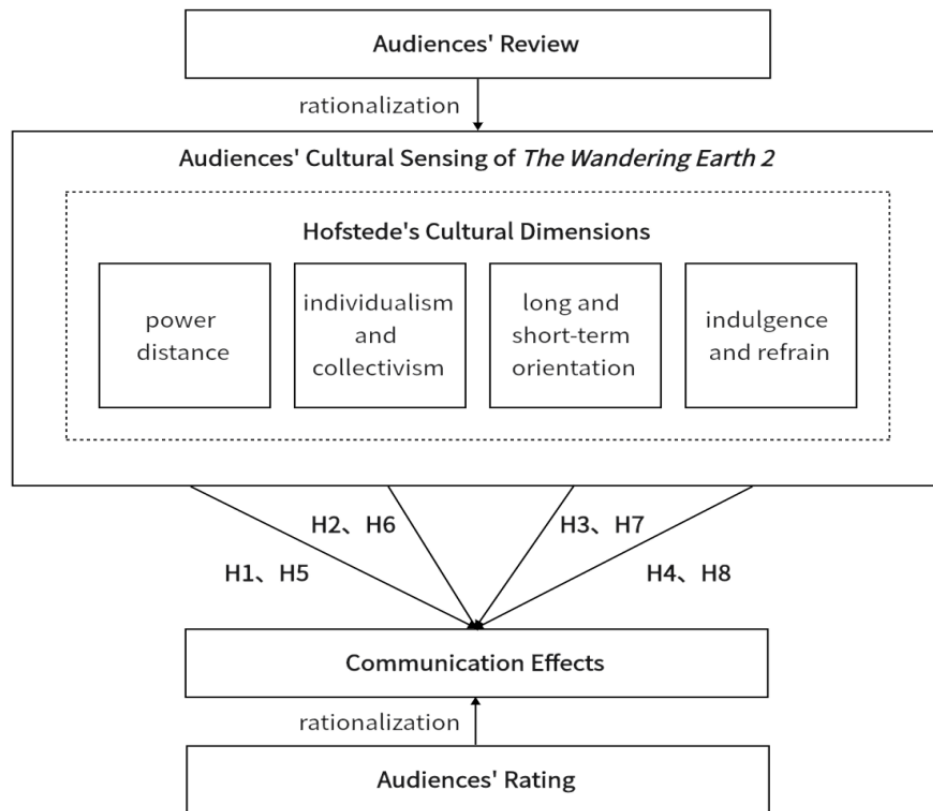


Figure 1: Cultural dimensional model of films' communication effects.

4. Results

4.1. Description of Statistics

The research conducts a descriptive statistical analysis on the miniature data base of reviews of *The Wandering Earth 2* and separately calculates the average of the scores from Douban and IMDb. The average scores are integrated into Table 3. As it demonstrates, Chinese's viewers' sensing of power distance, collectivism, long-term orientation and refrain are all prevalently stronger than that of American viewers.

Table 3: Independent variables and the mean value of dependent variables.

Platform	Power Distance	Collectivism	Long-term Orientation	Refrain	ratings	Score (total)
Douban	1.93	2.05	2.43	1.90	8.12	8.3
IMDb	1.68	1.84	2.08	1.65	7.20	7.2

4.2. Model Validation

Multiple linear regression analysis is the equation that most clearly reflects the mathematical relationship between independent variables and dependent variables. It uses a regression equation to

rationality explicate linear dependencies between two and more than two dependent variables. Referring to the multiple linear regression model in the prior research, the research takes the dependent variable as y , and independent variables as x_1, x_2, \dots, x_k , the multiple linear regression equation in this research is as followed:

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_k x_k + \dots$$

β_0 is the regression constant, β_1, \dots, β_k is called the coefficients of regression.

This research takes the sensing of power distance, collectivism, long-term orientation and refrain as the four independent variables of Chinese and American audience, and the ratings of the viewers as the dependent variables. By conducting multiple linear regression model analysis on the independent variable and the dependent variables, with all independent variables included simultaneously, a regression analysis table is formed that examines the factors influencing the communication effects of *The Wandering Earth 2* (Table 4 - 5).

Table 4: Multiple linear regression analyze which influences the communication effects of *The Wandering Earth 2*.

Independent variables		Unstandardized Coefficients					
Dependent variable s	Independent variables	B	SE	β	t	Sig.	VIF
Film Score	(constant)	0.926	1.628		0.569	0.571	
	Power distance	0.091	0.350	0.031	0.262	0.794	2.123
	Collectivism	0.817	0.342	0.252	2.391	0.019	1.658
	Long-term orientation	0.854	0.360	0.240	2.373	0.020	1.535
	Refrain	1.719	0.381	0.463	4.516	0.000	1.576

It can be known from Table 4 that the sensing of collectivism, long-term orientation and refrain of *The Wandering Earth 2* are key factors of its communication effects, while the power distance doesn't have much influence on the ratings of the film. Assumption in H2, H3 and H4 are verified while H1 doesn't get its valid support. It means that the sensing of power distance of Chinese audience in *The Wandering Earth 2* doesn't necessarily influence the communication effects, while collectivism, long-term orientation and refrain do.

Table 5: The analysis of multivariate regression coefficients which Influence the communication effects of *The Wandering Earth 2* in America.

Independent variables		Unstandardized Coefficients					
Independent variables	Dependent variables	B	SE	β	t	Sig.	VIF
The ratings of the film	(constant)	16.009	0.743		21.542	0.000	
	Power Distance	-1.399	0.397	-0.279	-3.521	0.001	1.694
	Collectivism	-1.936	0.380	-0.411	-5.097	0.000	1.758
	Long-term	-0.634	0.362	-0.132	-1.749	0.084	1.533
	Refrain	-0.964	0.383	-0.206	-2.516	0.014	1.809

Table 5 shows that all the factors except for long-term orientation have an obvious negative effect on the publication of *The Wandering Earth 2* in American viewers. Namely the higher the power distance in the film is reckoned by the audience; and the stronger the sense of collectivism, which restricts individual demand and desire, the lower the ratings of the film. Assumption H5, H6, H8 are supported while H7 is not.

5. Discussion

Based on the statistic above, the research revolves four dimensions including power distance, individualism and collectivism, long and short-term orientation, indulgence and refrain, and arrives at the following conclusion:

5.1. The Sensing of Chinese Viewers Are Higher Than American's

This means that *The Wandering Earth 2* succeeded in catering to the likings of domestic audience while taking the overseas audience' feelings and recognition into account. This not only never sway the faith of Chinese audience including collectivism, long - term orientation, and refrain, but also never oppress the persistence of individualism and pleasure-seeking of American audience, resulting in a win-win situation where self-persistence and recognition of others were both achieved. Objectively speaking, the difference between Chinese and American culture is relatively significant. If Chinese films want to "go abroad" smoothly and please the American audience, the filmmakers must seek common ground while reserving differences between two culture backgrounds, and tell a story that is favored by all.

5.2. The Long-term Orientation Provides a Possible Common Ground

In the four dimensions, both American and Chinese audience have a relatively higher sensing of "long-term orientation". What's behind the long history of two thousand and five hundred years of "wandering" is a grand view of the world and the universe started to count by the unit of hundreds of years, the conviction to preserve the human civilization by all cause, the sacrifice of the present benefit for the well-being of the future. All of these make audience coming from different culture background resonate with this belief. What's worth noticing is that for American audience, "long-term orientation" has become a negligible factor in the communication effects. It does not have obvious negative effect on the effect of communication which deviate from the original hypothesis and indicates that long-term orientation no longer necessarily causes dislike in the view of American audience but turn into a link with more possibility in the effect system.

5.3. Collectivism Becomes a “Double-edged Sword”

The result of multiple regression shows that the high degree of collectivism is a key factor for the movie to get positive comments in China while the case is completely different in America. The collective decision-making adapted by UEG, the spirit of sacrifice presented in the scenario “everyone beyond 50 steps up”, the unit of all people around the world, the human thigh bone cured before fifteen thousand years ago in the words of Zhou Zhezhi, a lot of plots follow the stories in the previous movie and show a high degree of collectivism in storytelling and character creation which composes the unique style of *The Wandering Earth 2*, which is to believe in the power of unity and the corporation of the human race, sacrificing individuals to accomplish the bigger unit [23]. This narrative is undoubtedly far removed from the myth of individualism that dominates Hollywood and the self-interested way of thinking that prioritizes the individual in the West. This could cause the suspicion and dislike among American viewers.

5.4. Individual Behavioral and Emotional Indulgences Have Different Effects

According to the calculating, Chinese and American audience don't have a high sensing on “refrain”. From their perspective, *The Wandering Earth 2* doesn't overly oppress the main character's actions and expression of emotion. The love between Liu Peiqiang and Han Duoduo, the conviction of Tu Hengyu to upload a digital version of his daughter, Zhou Zhezhi calling up the coalition government by all his strength... Undoubtedly, *The Wandering Earth 2* brings a brand-new plot that differs from the traditional occidental storytelling and breaks the conservative, oppressive stereotype. On the one hand, it caters to the pace of Hollywood movies and is helping for bettering the comments of American audience. On the other hand, its over explicit love lines and dialogues are a rebellion to the “medium” and conservative Chinese culture which may bring negative comments from Chinese audience.

6. Conclusion

The statistical analysis of this research and the conclusion of the research can bring up a referable suggestion and advice to the cross-culture communication of Chinese films.

First of all, Chinese films should take the difference between the audience from different culture background to promote the “soft landing” of Chinese films. Sure, Chinese and American audience have different degree of acceptance of the concept, culture and value conveyed by the film; however, its relatively high score shows that consensus can be achieved between people from different culture background, there is possibility for people from different background to understand each other. Filmmakers should remain positive for up-lifting of the communication effects of films, seeking common ground while reserving differences between two culture backgrounds with a neither humble nor pushy attitude. To make that happen, a film may both respect the intrinsic cultural inclination of other countries and not arouse their dislike as much as possible. Only in this way, can Chinese films discover the way to make the Chinese culture more appealing and have more influence.

Secondly, Chinese films should continue the grand style of future storytelling, enhancing the “hard core” of Chinese films. The statistic shows that American audience' sensing of long-term orientation in movie has broken the intermediate value. While *The Wandering Earth 2*'s emphasizing long-term goal and benefits, showing off the imagination of the future, it avoids receiving negative feedback from American audience, which gets out of the hoped-for cultural dimensional model of the communication effects. The phenomenon indicates that science-fiction works which borrow help from the special effect technology, could construct a view of world and universe as well as cross the borders of countries and ethnics. Hopefully, they could have excellent performances in searching emotional resonance between Chinese and overseas audience in terms of the concept of time.

Finally, Chinese films should work on the protection, discussion of the right of vulnerable groups to add “human touch” on themselves. Both high power distance and strong collectivism can drag the ratings of American audience. Therefore, Chinese films should bring down their political property as artworks and pay more attention to vulnerable groups convey their determination to protect their rights. Filmmakers should continue in enforcing the description of “Human touch” in decision makings, making the creation of artwork closer to the lives of ordinary individuals. By enhancing the characterization of every role, bringing out the live experience, emotional experience of individuals, Chinese filmmakers can maintain a collectivist orientation while still receiving positive opinions from both domestic and overseas audience.

References

- [1] ENDATA. (n.d.). Retrieved May 19, 2023, from [ys.endata.cn website: https://ys.endata.cn/Details/Movie?entId=704382](https://ys.endata.cn/Details/Movie?entId=704382)
- [2] *The Wandering Earth II*. (n.d.). Retrieved May 19, 2023, from Box Office Mojo website: https://www.boxofficemojo.com/title/tt13539646/?ref_=bo_se_r_2
- [3] Chien, S.-Y., Sycara, K., Liu, J.-S., & Kumru, A. (2016). *Relation between Trust Attitudes Toward Automation, Hofstede's Cultural Dimensions, and Big Five Personality Traits. Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 60(1), 841–845.
- [4] Hu, Z., & Zhang, W. (2012). *Thoughts on the International Communication of Chinese Films. Journal of Beijing Film Academy*, 3, 98–103.
- [5] Xia, Y. (2018). *The Strategy and Enlightenment of Cross cultural Communication in Hollywood Movies. Youth Journalist*, 29, 75–76.
- [6] Gao, J. (2020). *A Study on the Overseas Broadcasting Power of Chinese Films from the Perspective of Globalization: Based on the International Public Opinion Analysis of Chinese Films from 2000 to 2018. Academics in China*, 07, 167–175.
- [7] Liu, L., & Deng, Y. (2022). *Network Discourses Analysis Based on Python Emotional and Sentiment Analysis and Critical Metaphor: A Case Study of Overseas Movie Reviews of Chinese Movie “The Wandering Earth”. Journal of Jiangsu University(Social Science Edition)*, 24(3), 76–88.
- [8] Liu, J. (2018). *Intracception and Prospect: On Chinese Films' International Communication (1978-2018). Contemporary Cinema*, 0(10), 135–139.
- [9] Liu, R., & Jin, S. (2021). *Research on International Communication Strategies of Chinese Science Fiction Films. Media*, 05, 52–55.
- [10] Wu, K. (2020). *An Analysis of Cultural Discount of Intercultural Communication of Science Fiction Movies—A Case Study of. https://doi.org/10.27157/d.cnki.ghzku.2020.006363*
- [11] Chu, J. (2018). *The Anxiety of Recognition: The International Communication of Chinese Films in the Context of Globalization. Movie Review*, 0(12), 6–11.
- [12] Li, J. (2020). *Cultural Identities of Chinese Films in North American Market—Based on the Film Review Text of the New York times(1979-2017). Journal of Huaqiao University(Philosophy & Social Sciences)*, 02, 151–160.
- [13] Lan, D., & Zhu, Y. (2022). *Framing Research of the Overseas Internet Communication of Chinese Cinema in the Cross-cultural Context. Contemporary Cinema*, 08, 75–81.
- [14] Xiang, D., & Wang, J. (2020). *International Media Effects of and Strategies for The Wandering Earth from Intercultural Communication Perspective. Global Media Journal*, 07(04), 59–71.
- [15] Gao, K., & Li, B. (2022). *The Content Features of Overseas Dissemination of Chinese Films and the Construction of National Image: Combined with the Investigation of Film Reviews of Mainstream Media in North America. Future Communication*, 29(01), 102-111+130.
- [16] Wang, S., Li, M., & Wei, Q. (2021). *The Analysis of Overseas Audience Demand and Satisfaction of China Movies Based on Movie Reviews. Technology Intelligence Engineering*, 07(02).
- [17] Cheng, G., An, N., & Lin, M. (2019). *An emotional geopolitical research on films: Taking three Chinese overseas military operations themed films as examples. World Regional Studies*, 28(04), 65–75.
- [18] Zhang, Q., & Qi, W. (2022). *Analysis of Image Coding and Decoding of Chinese Stories in the Context of Cross cultural Communication. Movie Review*, 04, 47–52.
- [19] Li, W. (2009). *Hofstede's Cultural Dimension and cross-cultural studies. Journal of Social Sciences*, 12, 126-129+185.

- [20] Ni, T., Zhu, R., Huang, Y., & Chen, Z. (2022). *An analysis of the national differences in the cultural attribution of media trust: A study of 24 European countries based on Hofstede's cultural dimension*. *Chinese Journal of Journalism & Communication*, 44(06), 27–49.
- [21] Lin, D. (2018). *Analysis of Cultural Differences of Chinese and American Talk Shows from Hofstede's Cultural Dimensions*. *Journal of Huaihai Institute of Technology(Humanities & Social Sciences Edition)*, 16(09), 56–58.
- [22] *The dimension scores in the Hofstede model of national culture can be downloaded here*. (n.d.). Retrieved from Geert Hofstede website: <https://geerthofstede.com/research-and-vsm/dimension-data-matrix/>
- [23] Zeng, Y., & Zhang, M. (2019). *Discussion on the Cultural Symbols and Core Values of The Wandering Earth*. *Movie Literature*, 08, 59–61.