Research on the Effect of Using Memes from the Perspective of Media Ecology School ——Take the Popularity of the Memes of the Little Prince of Qatar as an Example

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Abstract: With the rapid development of intelligent technology, immersive screen consumption is becoming increasingly popular, and the symbol of memes has appeared frequently in people's online chat conversations. During the 2022 Qatar World Cup, the little prince of the host country Qatar, quickly became popular on social platforms with a meme that resembled the mascot of this World Cup, "La'eeb". Compared to text and video, why is the form of memes widely known in Qatar. This article will explore the communication effects of memes from the perspective of the media ecology school.

Keywords: Media ecology school, Meme Narrative, Hot and Cold Media

1 Introduction

With the continuous development of the Internet and social media, memes, as a newly emerging popular culture in recent years, have gradually become an indispensable way for people to express specific emotions in online communication. Emoticon culture is a mainstream culture emerging with the increase in online social communication. A person's emoticon is their hidden true self. Sometimes, memes express authentic thoughts and feelings that cannot be revealed. The end of language and writing is the space where memes are displayed. The reason why memes can be widely disseminated is that they make up for the weakness of tedious written communication and inaccurate attitude expression, effectively improving communication efficiency. With the widespread popularity of smartphones and the extensive use of social applications, emoticons have been appearing frequently in people's online chat conversations. During the 2022 Qatar World Cup, the little prince of the host country Qatar, quickly became popular on social platforms with a meme that resembled the mascot of this World Cup, "La'eeb". We have found that when introduced in text, people rarely understand the little prince of Qatar. But when a meme that appears to have less content than text appears, his image is immediately understood by the entire network. We were curious about this: why did the text and video communication content in Qatar region not explode in the past, while the content in the form of memes achieved very good communication effects? What is the mechanism by which it functions? What role has meme

played in improving the perception of Qatar's national image?

2 Literature Review

2.1 Literature review on meme culture phenomenon

In recent years, Chinese scholars have conducted multi-dimensional research on the cultural phenomenon of memes. In the 2022 article Exploring the Application of Semiotics in Network Expression Design by Zhang Wenna of Northwest University, the general laws of the development of network expression design are summarized from the perspective of semiotics and artistic design. Shen Hang, Lu Shiyu, and Kong Didi from Nanjing University of Technology in their 2022 Research on the Connotation Perception Differences and Design Trends of Social Memes - Taking the Meme" Smile "as an Example explored the cognitive differences of different users on emoticons based on graphical symbols. Yuan Fei and Yu Qian from Harbin Engineering University commented on Post Modernity Criticism and Order Reconstruction of Network Memes in the Context of New Media in 2022, which placed memes in the category of the life world of communication theory based on Habermas' communicative action theory and the principle of effectiveness.

2.2 Literature review on media ecology school

Media ecology school, commonly known as the school of technology, does not advocate "technological determinism", which holds that technology plays a fundamental decisive role, but rather believes that technology forms a "media environment" that emphasizes the role of technology, but does not believe that technology is the only decisive factor. This school emphasizes that the media environment can continuously and imperceptibly affect people's cognition, attitude, and behavior, and then affect all aspects of human society. McLuhan is a representative figure of this school, and his main viewpoint is the theory of "hot and cold media.". The theory of "hot and cold media" divides media into hot media and cold media. "Hot media" refers to media that convey clear information and thus have a low degree of participation by the recipient, such as pictures, radio, movies, etc. "Cold media" refers to media that transmit vague information and thus have a high degree of participation by the recipient, such as text, television, and telephone. After being proposed by McLuhan in 1964, this theory has attracted the attention of scholars at home and abroad, and has achieved many research results. In 2015, Wang Zheng from Southwest Jiaotong University published On the Functional Differentiation of Paper Media and Online Electronic Media under the Trend of Media Convergence - Based on McLuhan's" Hot and Cold Media Theory", which focuses on how media can maximize communication effects under the general trend of media convergence. Liang Ce of Bohai University published The Expansion of McLuhan's Hot and Cold Media Theory in Communication Theory in 2020. In the field of communication, the author expanded the "Hot and Cold Media" theory by studying the degree of involvement in interpersonal communication. In 2018, Wang Lingxuan of Fuzhou University

published The Impact of Animation Symbols on New Media: Thinking Based on the Theory of" Hot and Cold Media ", combining the development of animation symbols and new media in China with the theory of" Hot and Cold Media ". "Animation symbols, with their freedom of production and broad extension space, meet the diverse mobilization of visual senses by different 'hot' messages, and thus become the most universal research object and main symbol resource for new media communication.".

However, these studies have not studied the use effects of memes from the perspective of media media ecology, nor have they answered questions about why memes achieve good communication effects and their communication mechanisms, nor have they compared and measured the communication effects of communication forms such as text to enhance public awareness of a certain thing.

2.3 Question raising

Therefore, this article will start from McLuhan's theory of "hot and cold media", and attempt to take the meme of the little prince of Qatar as an example to analyze how it compares with the communication power of words, as well as its help to enhance the public's perception of the image of Qatar.

3 Research Method

3.1 Questionnaire survey method

3.1.1 Assumption establishment

In order to fill the gap in studying the effects of memes from the perspective of media ecology, we have chosen the research method of audience survey. Based on the question of communication power comparison and image perception improvement, we propose corresponding assumptions:

H1: Memes have stronger communication power than text content;

H2: Memes can enhance the public's perception of Qatar's national image more than text content.

To prove the hypothesis, this study uses a questionnaire survey to answer the above questions by setting questions with different dimensions.

3.1.2 Sampling method

The corresponding research object of this hypothesis is the group using memes on the Internet platform.

Firstly, we conducted a representative sampling of this group and selected the residents of the author's community as the study population. Secondly, we compile an overall sampling

frame based on the building number and house number of the community. Thirdly, we conduct hierarchical multi-level sampling on the sampling frame with a 95% confidence interval and a sampling error of 3%. We select 200 people as our samples. If we encounter a denial of access, we will sequentially seek the next account to make up for it.

We have designed a "Questionnaire on the Use Effect of the Qatar Little Prince Meme" on the Questionnaire Star platform (see the appendix), and subsequently released it through QQ, WeChat, and offline channels. The survey completed the data collection, collation, and analysis process on February 4, 2023. The survey mainly focused on open and closed questions, with a total of 10 questions. The main content is: (1) Confirmation of basic information: including gender, age, education, etc. This section includes 6 questions. (2) The survey on the dissemination of the little prince of Qatar's meme. This section contains three questions, including two questions using the Likert scale. The communication ability of the text and meme is obtained by the respondents' willingness to like, comment, and repost the text and meme about Qatar. (3) The Qatar national image cognition survey: gets an overview of the public's perception of the country's image through questions from several dimensions, including politics, economy, and culture.

4 Research Findings and Discussion Points

4.1 Description of sample characteristics

A total of 207 valid questionnaires were collected in this questionnaire survey, of which 81.16% were female respondents, 95.65% were in the age group of 18-36 years old, 80.68% were with a bachelor's degree, and 94.69% tended to use facial memes when communicating with family and friends. In terms of frequency, the two categories of people who used facial memes 1-10 times a week and more than 20 times a week accounted for a relatively large proportion, 32.37% and 49.76%, respectively. Of these people, 86.47% have had the experience of seeing Qatar's little prince's meme on social platforms.

We selected an article of about 600 words from third-party media Weibo during the 2022 Qatar World Cup, with the main idea of expense information for the Qatar World Cup. Only 6.28% of the people disagreed with the assertion that "this text clearly conveys the information that the Qatar World Cup costs a lot of money", while only 11.11% disagreed with the assertion that "I think this text has saved me time to understand the cost information of the Qatar World Cup". The vast majority of respondents agree with the richness of the text. However, the proportion of people willing to comment, like and repost this text is very small, with 29.47%, 35.36%, and 16.42%, respectively.

In contrast, only 35.75% of people believed that the meme of the little prince of Qatar clearly conveyed information, and only 35.74% believed that it saved time to learn about the little prince of Qatar. However, 40.1%, 46.38%, and 42.03% of respondents were willing to comment, like, and repost the meme respectively, significantly higher than those who want to display a single text.

In the questions about the perception of Qatar's national image, we have set some questions

with relatively fixed answers, such as "Qatar is a wealthy and rapidly developing country", "Qatar has many oil and natural gas resources", "Qatar has a well-developed football industry and is a sports powerhouse. ". More than half of the people chose our expected answer, and 56.04%, 67.64% and 22.22% agreed with the above three questions respectively (the predicted answer to the question "Developed football career" is "Disagree").

4.2 Meme communication power and national image

A total of 207 valid questionnaires were collected in this questionnaire survey. The questions related to text material were summed and averaged to generate the variable "text communication power", and the questions related to meme material were summed and averaged to generate the variable "meme communication power". The "communication power" includes the willingness to like, repost, and comment on the content, the interest of the content, the comprehensibility of the content, and the clarity of the transmitted information. Through descriptive analysis, it was found that the transmission power of memes was stronger than that of text, with an average of 3.2 and 3.3, respectively. The data showed significant differences at a 95% confidence interval. This indicates that the communication power of the Prince of Qatar's meme is stronger than the communication power of the text content. Therefore, H1: Memes have a stronger transmission power than text, and this research hypothesis in this article is supported.

When conducting a Pearson correlation analysis of the relationship between "text communication power" and "meme communication power" and "national image", we found that both text communication power and meme communication power were significantly and positively correlated with national image ($r=0.468$, $P<0.01$; $r=0.588$, $P<0.01$). However, from the perspective of correlation coefficient, the positive correlation between meme communication power and national image was stronger, indicating that in both communication forms of text and meme. Memes are more effective in raising the public's perception of Qatar's national image. Therefore, H2: Memes can enhance the public's perception of the image of Qatar more than words. This research hypothesis in this article is supported.

According to McLuhan's "hot and cold media" theory, different media act on people in different ways, resulting in different psychological and behavioral responses. After conducting a comparative study of the transmission characteristics of cold media represented by words and hot digital media represented by memes, we found:

Unlike textual symbol narration, meme narrative squeezes out the imaginative space of language and compresses the time required to express the same meaning. Memes are directly received by people's visual senses through intuitive images, and belong to hot media. Therefore, compared to text, memes pay more attention to emotional expression, and in their application process, they achieve their etymological mission of "expressing inner thoughts and feelings through changes in face or posture," or "body+emotion." Therefore, the use of memes essentially belongs to a type of physical expression. The advantages displayed by memes are focused on their unique social attributes. The high participation of memes makes interaction among users more efficient, while the production cost is lower. Therefore, it has sparked a heated discussion among netizens on topics related to memes. In this online communication space, the "Prince of Qatar"

meme is like a password, bringing new discussion topics to social groups in a highly interactive way.

5 Summary and reflection

5.1 The high communication power of memes can effectively enhance the overall perception of the national image

This study conducted a questionnaire survey to investigate the popularity of the memes of the Little Prince of Qatar, and attempted to analyze the use effects of memes represented by them and their help to enhance the public's perception of the country's image. Through research, it has been found that memes focus on emotional expression, which is more intuitive than text, and they are interesting and lively. Most of them combine with current internet hot spots, known as "you geng (describe a person can grasp and use the hot spots to make jokes)", and therefore they are more popular with the audience, generating stronger communication power than single text content, making the audience willing to learn about Qatar in the future through richer text, video, and other forms. Memes can enhance the overall perception of Qatar's national image through a combination of political, economic and cultural dimensions, enabling cultural exchange and dissemination. In short, an interesting meme is a threshold for the audience to be willing to understand a certain culture. Although it is not as rich in content as text or video, its role in attracting audience interest is immeasurable.

5.2 Memes are an important component of reducing the difficulty of online communication and achieving effective information transmission

Memes, as a popular medium, have a stronger communication power than text content and can enhance the public's perception of the image of Qatar's country more than text content. This study demonstrates that the "hot and cold media" theory is equally applicable to the use of memes. The popularity of memes enables accurate linking of information and emotions among people, achieving effective transmission of information and emotions. Due to the fact that both parties are separated from each other on the screen, it is difficult to accurately express the intentions and tone of both parties in a single text, which can easily lead to misunderstandings. The concise content of the meme well compensates for the shortcomings of textual communication. This allows people to express their aspirations and emotions across the screen more personalized and precise, thereby meeting the diverse communication needs of people in modern society. Even if different users have different understandings of the same meme, it is easy for users with similar age, cultural background, education level, and other conditions to have the same or similar understanding, thereby reducing the difficulty of online communication.

Alberton Megeby, who specializes in nonverbal symbols, once proposed that language and intonation expressions account for 45%, and facial expressions and posture expressions account for 55%. It can be seen that facial expressions and posture expressions are very important in the

process of communication. "While facial expressions and body posture cannot be reflected across the screen, the combination of graphic and textual memes has a good substitute effect, enhancing the interactive sense of online social interaction.".

5.3 Reflection on overuse of memes

However, it is worth noting that excessive use of memes can trigger pan-entertainment. People engage in endless pranks and slanders on some positive images, which not only leads to the phenomenon of "playing with bad jokes", but also makes the language expression of young people in our country increasingly poor. For example, after the video of a Chinese artist wearing suspenders to play basketball when he was a trainee became popular, platforms such as Bilibili were filled with various spoof videos, and even many popular uploaders would intentionally or unintentionally add bad jokes about the artist when creating content, so as to increase the activity of the barrage and the stickiness of users platforms. At the same time, many people take pleasure in this and joke about it regardless of the occasion, causing a scolding war on the Internet, which hampers to create a clean network environment. There is also a photo of a Chinese singer who is keen on public welfare and helps sanitation workers sweep the floor, which has also been spooked and given the connotation of "XX wants to beat you after listening to it" by netizens. Therefore, the singer publicly stated that the values of young people are being distorted, and no one is contemplating it. Behind the entertainment of such public welfare undertakings is actually the de-valuation.

The rise of meme culture is due to its novelty, humor, and more efficient expression of meaning than words. It reflects the individuality and innovative vitality of the young generation under the trend of liberalism. And meme culture is gradually influencing mainstream culture. Spoofing celebrity memes always seem to have bigger market and vitality due to the high popularity of celebrities and the dilution of portrait rights by their public attributes. Objectively speaking, a moderate amount of funny expressions can appropriately express opinions and emotions, and release emotions. Indeed, they should not be regarded as beasts of war. However, if the virtual nature of the network or the low cost of irresponsibility and the banner of" entertainment supremacy "go beyond the bottom line constrained by social ethics without restraint, then this pan-liberalism is likely to create a" network mob "and even extend the network rage to the real society.

On the other hand, we do not deny the convenience of facial memes in online communication, but excessive use of facial memes can reduce our language organization and communication skills, affecting our normal life communication. Overuse of memes can increase people's communication inertia and easily lead to loss of expressive ability. Things that can be solved with memes will no longer be expressed in language, which in turn can affect their expressive ability in real life, resulting in so-called "text poverty" and "thought poverty.".

5.4 Conclusion

In addition, in future research, researchers in the field of communication science may need to

pay more attention to the communication effects of this emerging network culture, and enrich and develop classic theories of communication science through research on network communication, and use them to guide various network communication practices.

References

[1] Zhang Wenna (2022). Exploring the Application of Semiotics in Network Expression Design. Media Forum (21), 97-99.(in Chinese)

[2] Shen Hang, Lu Shiyu&Kong Didi (2022). Research on the differences in content perception and design trends of social memes - Taking the meme "smile" as an example. Beauty and the Times (Part 1) (07), 27-29.(in Chinese)

[3] Yuan Fei&Yu Qian (2022). Post modernity criticism and order reconstruction of network memes in the context of new media. Journal of Nanjing University of Posts and Telecommunications (Social Science Edition) (03), 52-60.(in Chinese)

[4] Liang Ce (2020). The expansion of McLuhan's hot and cold media theory in communication theory Introduction to News Research (05), 61-62+114.(in Chinese)

[5] Sun Yixiao (2020). Analysis of the transmission mechanism of facial memes as an interactive interface - take the facial memes of "urging elders to wear masks" in the COVID-19 period as an example. News Communication (03), 41-43.(in Chinese)

[6] Wu Di (2019). Research on Network Communication of memes from a Postmodern Perspective. School of Culture, Industry, and Tourism, Xiamen Institute of Technology (eds.) Cross Strait Creative Economy Research Report (2019) (pp. 173-185). Cross Strait Creative Economy Research Report (2019)(in Chinese)

[7]Kim Mi Kyung,Lee Yoon Kyung & Yim Eun Hyuk. (2018).Semiotic Characteristics of Emoji Communication in the Changed Fashion Media Contents.Journal of the Korean Society of Costume(7),74-89

[8]Hesse Biber Sharlene & Flowers Hilary. (2018).When You Change the Mode, You Change the Message: Insights From Marshall McLuhan’s Medium Theory and Impacts on the Overall Research Process and Mixed Methods Inquiry. INTERNATIONAL JOURNAL OF MULTIPLE RESEARCH APPROACHES(1),124-135

[9] Wang Lingxuan (2018). The Impact of Animation Symbols on New Media: Thinking Based on the Theory of "Hot and Cold Media" Modern Communication (Journal of Communication University of China) (01), 123-127.(in Chinese)

[10] Wang Zheng (2015). On the functional differentiation of paper media and online electronic media under the trend of media convergence - based on McLuhan's "hot and cold media" theory. Journal of Chengdu Textile College (03), 141-143.(in Chinese)

[11]Moon Jung-Pil. (2012).A Study in the Media Message of Jacques Herzog & Pierre de Meuron’s Architectural Skin - Focused on the Media Theory of Marshall McLuhan. JOURNAL OF THE ARCHITECTURAL INSTITUTE OF KOREA Planning & Design(8),131

Appendix: Questionnaire on the Use Effect of the Qatar Prince's

Memes

1. Basic information

1.What is your gender?

Male B. Female

What is your age?

2.Under 18 years of age B. 18-36 years of age

C. 36 to 59 years of age D. 60 years of age and above

3.What is your educational background?

A.Postgraduate and above B. Undergraduate

C. Junior college and below

4.Have you ever used facial memes on social media such as Weibo, Tiktok and Xiaohongshu?

A.Yes B. No

5.If you have ever used an emoticon pack, what are the scenarios you use?

A.Communicate with family and friends

B.Communicate with unfamiliar netizens

C. Comment on news reports and other content

D. Other

6. How often do you use facial memes?

A. 1-10 times a week B. 11-20 times a week C. More than 20 times a week

2. Investigation on the Communication Power of the memes of the little prince of Qatar

7. Did you see the meme of the little prince of Qatar when browsing related content of the 2022 Qatar World Cup on social platforms?

A. Yes B. No

8.Please browse the following paragraph and answer the question. (1=strongly opposed, 2=disagree, 3=neutral, 4=agree, 5=strongly agree)

#The World Cup that burns the most money in history # [# Qatar's 1.2 times GDP creates the World Cup #, Qatar is so "entrenched"?] # The World Cup that is surging # This World Cup is unprecedented. Not only was it the curtain call for star players such as Messi and Ronaldo, but it was also the first time it was held in Qatar, a desert country that had not yet reached the World Cup finals. It was also the most expensive World Cup in history. In order to welcome the arrival of the World Cup, the host Qatar and FIFA seem to be incarnated as "loose money children", with the funding and participation bonuses reaching new highs.

According to the United States sports business media Front Office Sports, the Qatar World Cup is expected to cost $220 billion since its preparation. What is the concept of plunging $220 billion? This is almost enough for Russia to host another 19 World Cups. The total expenditure of the past seven World Cups has been approximately $44.3 billion, which is only less than 20% of its total. The World Bank disclosed that Qatar's GDP in 2021 was $179.57 billion, nearly $40.5 billion less than the cost of this World Cup.

In order to make it easier for fans to watch football back and forth, Qatar spent $16 billion on expanding the airport with a flick of its left hand, and $36 billion on building three subway lines that are more than 70 kilometers long with a flick of its right hand. Not only that, the city where the Qatar World Cup home stadium is located, Lusser, was almost built from scratch. Originally a small village, it is now a modern city with complete facilities such as hotels, parks, docks, and shopping centers.

It is difficult to predict the impact of a major event that has attracted worldwide attention on the host country, but Qatar officials are confident in this economic account. According to Qatar News Agency, Nasser Al Hart, CEO of the Qatar World Cup Organizing Committee, said that the current infrastructure construction of the World Cup itself has cost approximately $8 billion. However, during the World Cup, nearly 1 million people will visit Qatar, and it is expected that the economic benefits brought by the World Cup to Qatar can reach 17 billion US dollars, which is more than twice the investment.

(1)I would like to comment on this paragraph.
£1 £2 £3 £4 £5
(2)I would like to give this passage some praise.
£1 £2 £3 £4 £5
(3)I am willing to forward this paragraph.
£1 £2 £3 £4 £5
(4)I think this passage clearly conveys the message that the Qatar World Cup is expensive.
£1 £2 £3 £4 £5
(5)I think this passage is interesting.
£1 £2 £3 £4 £5
(6)I think this passage saved me time understanding the cost information of the Qatar World Cup.
£1 £2 £3 £4 £5

9.Please browse the meme below and answer the questions. (1=strongly opposed, 2=disagree, 3=neutral, 4=agree, 5=strongly agree)



(1)I would like to comment on this emoticon pack.
£1 £2 £3 £4 £5
(2)I would like to give this expression a little praise.
£1 £2 £3 £4 £5
(3)I am willing to forward this emoticon package.
£1 £2 £3 £4 £5
(4)I think this meme clearly conveys the message of the little prince of Qatar.
£1 £2 £3 £4 £5
(5)I think this meme is interesting.
£1 £2 £3 £4 £5
(6)I think this meme saved me time getting to know the little prince of Qatar.
£1 £2 £3 £4 £5

3. Qatar National Image Awareness Survey

10.Please answer the following questions about Qatar's national image perception. (1=strongly opposed, 2=disagree, 3=neutral, 4=agree, 5=strongly agree)

(I)Overall image
(1)Qatar is a country with good governance, social harmony and stability.
£1 £2 £3 £4 £5

Qatar is a wealthy and rapidly developing country.
£1 £2 £3 £4 £5
(II) Political image
(3) Qatar has a good national image and a high international status.
£1 £2 £3 £4 £5
(III) Economic image
(4)Qatar's economic development is conducive to global economic development.
£1 £2 £3 £4 £5
(5) Qatar has a high level of national consumption and strong consumption capacity.
£1 £2 £3 £4 £5
(6)Qatar has numerous oil and natural gas resources.
£1 £2 £3 £4 £5
(IV) Cultural image
(7)Qatar's culture is rich and diverse.
£1 £2 £3 R4 £5
(8)Qatar's culture is advanced and inclusive.
£1 £2 £3 £4 £5
(9)Qatar's contemporary culture is full of vitality.
£1 £2 £3 £4 £5
(10)The relevant culture of the Qatari royal family is interesting.

£1 £2 £3 £4 £5

(11)Qatar's scientific and technological level is leading in the world.

£1 £2 £3 £4 £5

Qatar has a developed football industry and is a major sports country.

£1 £2 £3 £4 £5

(V) Social image

(13)Qatar has good social security.

£1 £2 £3 £4 £5

(14)Qatar has diverse consumption patterns and rich commodities.

£1 £2 £3 £4 £5

(15)Qatar has very convenient transportation.

£1 £2 £3 £4 £5