



Study on the status quo and development of red gene transmission in the 20 new era

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Abstract: Rooted in the history of Chinese revolution, red culture is a unique spiritual symbol of the Chinese people, an important part of the excellent traditional Chinese culture, and an important resource for the construction of social ideology and the cultivation of national moral culture. Under the new social pattern led by the twenty, the dissemination of red culture constantly needs to be innovated and developed from a digital perspective. However, in the era of entertainment to death and traffic, the mainstream values of red culture are increasingly eroded by the rationality of information technology tools, resulting in the digital dissemination of red culture still facing many difficulties. In order to solve this problem, we must start from the four aspects of the subject, the audience, the communication content and the effect monitoring, improve the personal quality of the communicators, and achieve the "right medicine" of the communication content and channels, so as to achieve the purpose of improving the quality and efficiency of red culture communication.

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1.Development of red culture communication

1.1 Dissemination of red culture in the early traditional mode

Since the founding of New China, the early dissemination of red culture has been mainly led by the Party Central Committee and the government, mainly using traditional oral, written, printed and electronic communication methods, with the core goal of promoting the identification of red culture at the social, mass and national levels. From the beginning of the new democratic revolution, China has extensively propagated the red culture of the Communist Party of China in various forms and large-scale. During this period, radio became one of the main ways to spread red culture, which used auditory signs and linear logical thinking to convey information, and had a huge public discourse power. Thanks to the rapid dissemination of oral information, the popularity of newspapers and paper media, as well as the continuous progress of radio and television technology, the mass communication mode of China's red culture has been preliminarily established.

After the reform and opening up, the economic policy was gradually opened up, and the ideological and

cultural fields began to show a trend of liberalization. The Western ideological trend quietly emerged in the trade exchanges, and this huge ideological collision and difference pushed the red culture into the trough in a short time. Therefore, under the current historical background, the Communist Party of China continues to deepen the meaning and practice of red culture. Since then, red culture is no longer limited to the revolutionary war and class struggle carried out by the people under the leadership of the Party, but includes various elements, including the entrepreneurial spirit embodied in the "Xia Hai Tide" in the early 1990s [1], the manned space flight spirit of the Shenzhou VI mission in 2005, the Olympic spirit of the 2008 Beijing Olympic Games, etc. It fully demonstrates the arduous struggle of the Chinese people under the leadership of the Communist Party of China. The communication methods of red culture are also gradually diversified, such as public service advertisements, red cultural and creative products, revolutionary classic film and television dramas, etc. These works further deepen the exploration of the connotation of red culture, broaden the communication channels of red culture, and stimulate the public's

enthusiasm to participate in the protection of red cultural resources and content dissemination to a certain extent. However, at this stage, the main body of red culture communication in our country is still the Party Central Committee and the national government, and there is no real mass spontaneous communication.

1.2 Dissemination of red culture under the digital model in the new era

Since the 1940s and 1950s, fields such as computers, the Internet, virtual reality and artificial intelligence have experienced major technological advances, which has been recorded by history as the third scientific and technological revolution. In the past decade, thanks to these advanced technologies, the digital industry of the Internet has developed rapidly. Wechat, Douyin and other social media, short video and live broadcast software have come out, creating a new model for human information transmission, that is, digital (new media) model. In view of the intricate information on the Internet and the continuous infiltration of foreign forces into China's ideology, the traditional mode of red culture transmission has been difficult to fully demonstrate its potential value. Therefore, how to use the advantages of digital technology to maximize the communication effect of red culture, so as to strengthen the cultural confidence of the people, has become an important issue of the research on the development of red culture communication in the new era. In the field of game design, Hu Jianbin integrates the concept of narrative communication and focuses on the research of digital communication of Jinggangshan red culture [2]. Zhang Huanping and Hu Ruibo conducted an in-depth discussion on the combination of Hexi Corridor's red memory and two-dimensional animation in the field of animation [3]. Taking short videos as the starting point, Wang Lu deeply analyzed the current situation of short videos of red culture in Xi 'an, and discussed the transmission channels of red culture in Xi 'an from the perspective of film and television anthropology [4].

Although there are a large number of relevant studies, these studies are still insufficient in improving the digital communication effect of red culture in society. In the current Internet environment, the distribution mode of user original content (UGC) is becoming more and more popular. However, due to the seriousness of red culture itself and the low freedom of content creation, very few people are willing to take the initiative to create creative works around red culture and assist its dissemination. This has also led to a phenomenon that although there are hundreds of millions of original content users on the Internet, the main body of red culture is still concentrated in the party and government organs at all levels. The fundamental reason is that, to some extent, the communication of red culture only

stays on the surface, and the public's emotional acceptance of red culture is insufficient, and their awareness of its communication is relatively weak, so it is impossible to build a coherent all-media cultural communication ecosystem [37]. In addition, in the current Internet environment, due to the great difference in the cognitive level of communication subjects, the innovation of communication content is not enough, coupled with the absolute neutrality of digital technology, which is easy to lead to information cocoon, echo chamber effect and other adverse phenomena, further limiting the communication effect of red culture.

2. Analysis of the difficulties of digital communication of red culture

2.1 Information cocoon: The information type is solidified and closed

In today's Internet and digital era, the concept of product design and content dissemination with user experience as the core has become the dominant one, and the user's attention has become the decisive factor for the quality and efficiency of Internet products. In order to obtain a longer user stay, the platform generally adopts the content mechanism recommended by algorithms. Through the analysis of users' past behavior preferences, a "user portrait" that can reflect users' personalized information is generated, according to which the information in the platform is pre-screened and then accurately pushed to users in order to cater to users' preferences. This phenomenon of "information catering" [7] unconsciously forces the autonomy of information selection in the hands of users to be handed over to machine algorithms, which aim to maximize the viewing amount and interaction amount of users, resulting in a serious phenomenon of information "narrowing" and homogenization. Although red culture is valued and supported by the mainstream media, it is still in a niche area in the massive fragmented information, and the communication force has not yet gathered. How to help the audience "escape" from the information cocoon built by themselves, promote the free flow of red culture information, and make it return to the public vision on the media platform is an urgent problem to be solved in realizing the socialization of red culture.

In addition, American scholar Clapper mentioned in the Effect of Mass Communication that the audience's reception, understanding and use of media information are selective. This phenomenon is intensified under the information cocoon phenomenon, the recommendation algorithm only shows the user what he wants to see, and excludes the information that contradicts his views or is unfamiliar to the field, and thus forms a "information island" between groups with different preferences. Under the phenomenon of information cocoon caused by machine algorithm, users are addicted to the mimicry

environment constructed for them by the algorithm for a long time, and the audience's concept is rigid and deaf, and their ability to accept new things is decreased. Even when they come into contact with red cultural content, they can hardly truly accept it in their hearts, and they lose their ability to absorb red cultural information and their critical spirit to misleading content [7].

2.2 Propagation noise: The content quality varies

Shannon Furway, the father of information theory, once proposed the concept of "noise" : noise is a kind of interference with normal information, which will lead to the appearance of information errors, thus affecting the audience's accurate reception of information. Noise will appear in the three transmission links of information source, channel and home.

The "information source" of red culture communication is the main body of communication. The Internet UGC (User original content) model is prevalent, and the main body of red culture communication has changed from a single mainstream media and party and government organs to a diversified one. Due to the characteristics of easy operation and low threshold, digital media has low requirements on the theoretical quality and professional knowledge level of the communication subject, which directly leads to the differentiation of the cognitive level of the subject. At present, some communication subjects do not have clear cognition and in-depth understanding of red culture, and do not conduct in-depth exploration and consideration of the red culture content they disseminate, resulting in the rampant spread of false information, forming the "noise" in the social communication of red culture, which will weaken the publicity effect and guiding value of red culture in the public over time.

At present, the "channel" of red culture dissemination mainly consists of word media. Furthermore, it has a negative impact on the level of red culture cognition of Internet users [8].

The users of digital media products are the "trust" of red culture dissemination. The communication noise at the destination mainly comes from the audience's own cognitive level and psychological preference, which affect the final effect of the social communication of red culture from the two levels of information understanding and memory respectively. Among them, the low cognitive level caused by age, health status, education level and other factors will directly cause the audience to be unable to correctly understand and analyze the spiritual connotation of red cultural information after receiving it; However, if the red culture is not within the scope of the audience's psychological preference, even if they have the ability to understand the red culture information, they will have an aversion and conflict, thus weakening their red culture identity and resonance, not to mention the internalization of self-spirit.

2.3 Lack of control: False information is rampant

In traditional information communication, there are professional "gatekeepers" to screen and filter information and guide public opinion correctly. However, due to the current prevalence of we-media UGC model and the large-scale use of recommendation algorithms, new media platforms generally present a decentralized phenomenon, resulting in the lack of professional subject gatekeepers for the communication content of red culture. The criteria of content quality are handed over to audience preferences and data flow. Therefore, the false and low-quality red culture communication content caused by the difference in the cognitive level and media quality of the information source in the communication process will not be blocked or filtered out. Instead, it is highly likely that the algorithm system will increase the push weight due to its considerable data, and it will be widely disseminated in a short time.

2.4 Watt cauldron effect: Distorted public opinion environment

The Wawei effect was first proposed by Professor Du Junfei of Nanjing University in his article "Wawei Era of Mass Communication" first published in Southern Weekend, which means that high-value news only gets a small part of the attention of media resources, while low-value information can get a higher allocation of resources. Out of curiosity, controversial false content is often more likely to arouse attention and discussion, and the proliferation of these contents will lead to the phenomenon of "bad money driving out good money". As discussed in the previous section, problems such as communication noise and lack of control have led to some online opinion leaders fabricating red culture stories that are inconsistent with the facts to attract people's attention, making red culture gradually become a vassal of entertainment. These entertaining "interpretations" form a strong contrast with the knowledge that the public has learned when receiving red education, which stimulates the curiosity of the audience, leads to the intensified rumors, and causes the public to misunderstand red culture.

3. Twenty red culture digital communication development measures

3.1 Strengthen subject education

In the digital era, the dissemination of red culture is promoted by both the main body and the audience. However, due to differences in theoretical level and social division of labor, in most cases, the communication audience did not directly participate in the communication process of red culture. With the continuous progress of digital technology, the main body of information dissemination has also put forward a

higher level of demand. In the digital era, although professionals engaged in cultural communication have a deep understanding of digital media and network applications, they still have shortcomings in the grasp and cognition of red literature. This leads to the possibility of inaccurate content and uneven quality in the dissemination of red culture, thus reducing the importance of red culture in value education. Therefore, the red culture communication in the new era of the twenty has a sharp increase in the demand for talents with comprehensive skills and multi-disciplinary backgrounds. If more and more people can master media creation skills and have a correct and profound understanding of red culture, the content of red culture communication can achieve a qualitative leap in both form and connotation, and then achieve the goal of improving communication efficiency.

3.2 In-depth audience research

At the beginning of the creation of communication content, it is necessary to investigate the audience first. China's red culture is socialized for the whole society, and it has the characteristics of cross-age, cross-occupation, cross-health status, etc. Therefore, the audience groups have different concerns and preferences, and the propaganda of "spreading the net" often fails to achieve the expected effect [8]. Field investigation, questionnaire analysis, interview and other interactive research methods can be used to understand the background, preferences and other basic information of the audience, accurately analyze the psychological activities and behavioral characteristics of the audience, and find out the real needs of the audience for targeted communication. In addition, if the audience includes special groups such as children, the elderly, and the disabled, corresponding compensation measures should be taken according to their physical and mental characteristics.

3.3 Digital design empowerment

Digital interactive design breaks the mode of one-way output and transmission of content from the communication subject to the audience, and greatly broadens the display form of red cultural content with its liveliness, immersion and fun. It has developed from a single text, picture and video to a series of interactive media forms including games, VR, AR, interactive video and motion-sensing devices. Furthermore, it provides more possibilities for the display of red cultural content. For example, focusing on the feature of vitality, digital interaction design can vividly reproduce the red cultural history in books, realize the activation, dynamic and three-dimensional of the scenery [9], and even create a direct "dialogue" with historical figures for the audience, and the opportunity to understand the great figures different from those in the textbooks and classes

in the interaction, so as to make the red cultural history more vivid and down-to-earth. In view of its immersion characteristics, digital interaction design can bring audiences immersive experience through simulated scene construction and simulated interaction. For example, audiences can use VR devices to roam in a highly restored three-dimensional virtual environment, experience multi-channel sensory integration such as visual and auditory, and freely interact with people and objects in the scene, such as opening doors, turning books, asking for directions, etc. Fully immersed in the scene, to achieve the deep emotional interaction between the audience and the red culture. In terms of fun, digital interaction design can organically combine the entertainment of games with the seriousness of red culture, design appropriate gameplay under the background of the history and story of red culture, so that audiences can imperceptibly deepen their cognition and identification of red culture during the game process, and have emotional resonance with red culture in this flow experience. It can be seen that digital interaction design can stimulate the innovation of the communication content and form of red culture to a large extent, cultivate the audience's interest in red culture by creating a more novel experience, enhance their social recognition, and help realize the socialization of red culture.

3.4 Pay attention to effect feedback

The two transmitting and receiving parties are not isolated, and there is an interdependent transmission and feedback relationship between them. People can verify the actual effect of information dissemination by collecting and analyzing the feedback information of the audience, so as to provide reference for improving the communication strategy in the next step. From the perspective of psychology, the feedback evaluation of the effect of red culture communication should follow the rule of value identification, starting from three identification stages: cognition, attitude and behavior. In the face of today's big data era, it is necessary to establish a strong data awareness when evaluating the dissemination effect of mainstream ideologies in new media. Efforts should be made to strengthen the construction of big data and rely on data to make communication decisions, management and innovation, so as to achieve wide coverage of red culture communication in the macro scope and strong depth at the micro level, and then innovate the research paradigm while adapting to the emerging trend of quantitative research. For example, various methods such as memory retention test, interview and questionnaire survey can be used to combine qualitative and quantitative research methods and constantly review and improve communication methods to maximize communication effects.

3.5 Strengthen control and policy supervision

Follow the principle of multi-layer control. First, strengthen the professional quality of the main body of red cultural information release. In the digital media ecology, the phenomenon of social communication is very common, that is, digital information has a high degree of communication, every word and action, a picture and an article, just contact with the audience's emotional point, will form a joint, systematic and large-scale communication in a short period of time, and a little attention may cause irreparable bad results. Therefore, improving the professional quality of red cultural information publishers also plays a key role in strengthening their image as "gatekeepers" and developing red culture better and faster; Second, it is necessary to continuously improve the development of digital media technology and use technical means to screen red culture-related content on new media platforms; Third, it is necessary to improve the media literacy of the audience. In the Internet era, the audience should develop the ability to distinguish red culture and apply and transmit red culture with a rational attitude, objective perspective and speculative vision.

Reference

- [1] Yang Chao. The centennial Retrospection and contemporary Enlightenment of the Communist Party of China's dissemination of Red Culture [J]. *Chongqing Social Sciences*,2021(06):19-31.
- [2] Hu Jianbin. Design of red culture-themed games from the perspective of Narrative communication [J]. *Sichuan Drama*,2022,No.262(06):127-129+139.
- [3] Zhang Huanping, Hu Ruibo. A study on the design fusion of red memory and 2D animation in Hexi Corridor: A case study of "Blood Battle Plateau" [J]. *Beauty and Times (I)*, 2022, No.952(08):119-122.
- [4] Wang Lu. Research on short videos of urban Red Culture from the perspective of film and Television Anthropology -- taking Xi 'an as an example [J]. *Media*,2022,No.374(09):73-75.
- [5] Zhan Lin, Huang Jia, Wang Chun, Liu Peilin. 3D digital presentation of red tourism resources based on landscape gene theory: A case study of Yang Kaihui's former residence in Qingshui Pond [J]. *Tourism Tribune*, 2002,37(07):54-64.
- [6] Liu Li, Zheng Haiyan. Research on innovative strategies of digital communication of red culture [J]. *Media*,2022,No.385(20):80-83.
- [7] Li Hongtan, Tan Siling. Challenges and coping strategies of "Information cocoon" on the dissemination of mainstream ideology in universities [J]. *Media*,2023,No.396(07):71-73.
- [8] Song Changshan. Analysis on the path of cultural

transmission in the Grand Canal from the perspective of SMCR model [J]. *World of Humanity*,2022,No.197(03):59-64.

- [9] Zhou Jianxin, Wang Liangyu. Multiple features and future possibilities of digital interactive art [J]. *Research in Art*,2021,No.11(01):97-104.

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