Design and Implementation of Virtual Simulation Platform for Omni-Media Public Opinion Guidance

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Abstract: Relying on big data technology and media convergence technology, the virtual simulation platform of omni-media public opinion guidance is a set of "man-machine cooperation" operation system, which deeply combines public opinion guidance with the production of media news content. It is mainly composed of four modules: public opinion monitoring, public opinion analysis, news production, release and interaction. The virtual simulation platform of omni-media public opinion guidance mainly uses public opinion package, intelligent data tools, system cloud platform and virtual omni-media communication matrix to realize the virtual simulation of omni-media public opinion guidance. It not only plays an important role in promoting the "public opinion guidance" function of omni-media, but also plays an important role in helping the government to build a public crisis warning mechanism, enterprise brand operation, talent training in teaching and scientific research development.

Keyword: omni-media; big data; public opinion guidance; virtual simulation

1. Preface

With the development of network technology, mankind has stepped into an unprecedented information age. In the field of media, the digitalization of media blurs the boundary of media and reduces the threshold of content production. In addition to the traditional "mainstream public opinion position", a group of more interactive social media are growing up. In the era that everyone has a microphone, "folk opinion" has changed its previous identity of single passive receiver, but plays multiple roles such as disseminator, receiver and consumer. Once a netizen's speech is generally recognized by the masses, the growth of this topic community will evolve into public opinion, which will form a huge force in the network and even in the real society it makes the public opinion guidance of news media more complicated and difficult.

2. Theoretical Connotation of Virtual Imitation Platform Guided By Omni-media Public Opinion

On September 26, 2020, Chinese government issued the "opinions on accelerating the deep integration and development of media", which pointed out that "it is necessary to build a number of new mainstream media with strong influence and competitiveness as soon as possible, and gradually build a mainstream public opinion pattern of integration of online and offline, and linkage of internal and external publicity". On November 3, 2020, the "proposal of the CPC Central Committee on formulating the 14th five year plan for national economic and social development and the long-term goal of 2035" also put forward "promoting the deep integration of media, implementing the omni-media communication project, strengthening the new mainstream media, and building the county-level financial media center." These explanations point out the direction for us to build the virtual simulation platform of omni-media public opinion guidance. In the information environment with huge data volume and mixed content, the public opinion guidance of news media should have the awareness of big data, make full use of the technology and resources of emerging media to realize the deep excavation of content, and achieve the requirements of new mainstream media by omni-media communication and improving the right of data discourse.

2.1. Build an Omni-media Communication System

From the perspective of media ecology, the omni-media communication system makes the media become a more systematic whole and influences other elements of society and environment. Its functions are mainly reflected in three aspects: the first is the mainstream public opinion position; the second is the comprehensive service platform; the third is the community information hub. These three functions constitute the basic functions of the future omni-media communication system. "[1] With the development of network information technology and the growth of we media team, media ecology has experienced the development from "centralization" to "decentralization". omni-media with matrix characteristics can well connect multiple roles such as users, platforms, industries and regions, and constantly strengthen the connection ability according to the growth of external and self size, thus forming the media ecology" The new media environment

of "recentralization". The design of the virtual simulation platform for omni-media public opinion guidance takes advantage of the "re centralization" feature to aggregate the complex information into a database, and uses the media technology to achieve multi regional and multi industry functional links.

2.2. Enhance the Discourse Power of Mainstream Media

In order of discourse, Michel Foucault puts forward the view that "discourse is power." as a communication advantage and a deep influence, discourse power is not only the result of the competition between social influence and communication ability, but also the process of continuous competition of communication ability in social order [2] The virtual simulation platform of omni-media public opinion guidance carries out big data analysis on the basis of monitoring, summarizing, tracking and reporting of public opinion events through big data and media fusion technology, and carries out multi-media multi platform matrix tracking report on this event, compound various forms and radiate the public, so as to avoid the guidance caused by the unknown and fear of events caused by major public emergencies To a more complex and serious public crisis. It is conducive to play the role of mainstream media "backbone", using resources from all sides, focusing on public opinion events with potential development risks, guiding and communicating with the media units closest to the scene of the incident, providing multi-party resources and realizing objective evaluation.

3. Construction and Design of Virtual Simulation Platform for Omni-media Public Opinion Guidance

The design of virtual simulation platform for omni-media public opinion guidance is based on big data technology and media convergence technology. According to the industry-leading standards of financial media center and the requirements of public opinion guidance, through combing the whole process of the generation and development of public opinion events, it is a set of "man-machine cooperation" operation system that deeply combines public opinion guidance with financial media news content production. The virtual simulation platform of omni-media public opinion guidance is mainly composed of four modules: public opinion monitoring, public opinion analysis, news production, release and interaction. (as shown in Figure 1) on the one hand, the virtual simulation platform of omni-media public opinion guidance provides a perceptible and stable "emergency public opinion scene"; on the other hand, the platform uses all real media technology as the content production and release tool to realize the virtual simulation of the whole process report and multi-dimensional information release interaction of omni-media public opinion guidance of emergency.
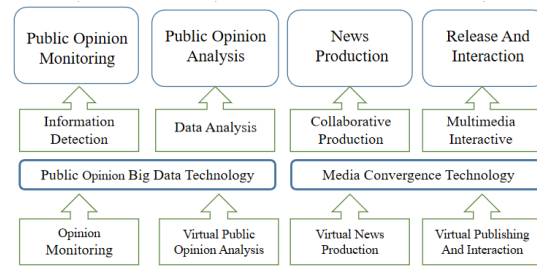

Figure 1. Virtual simulation platform

3.1. Public Opinion Monitoring Module

Public opinion monitoring module is the basic link, public opinion monitoring refers to the use of network technology, real-time public opinion and opinions on the Internet to monitor and predict the behavior. The incomplete and untimely collection of public opinion information under the traditional technology will make us lose the opportunity to grasp the public opinion information at the first time, and then cause the non objectivity of public opinion analysis, the lag and ineffectiveness of public opinion guidance and other problems. The public opinion monitoring module of omni-media public opinion guidance virtual simulation platform mainly includes two parts: manual monitoring and visual presentation. By searching the keywords of public opinion events on the platform, we can see the relevant media reports, relevant videos, daily new information combing and information sensitivity ratio of public opinion events, which plays an important role in the comprehensive collection and real-time monitoring of public opinion information Use.

3.2. Public Opinion Analysis Module

The analysis of public opinion in the face of emergencies refers to the process of deep thinking processing and analysis of public opinion according to the characteristics of emergencies and the needs of public opinion guidance, and obtaining news reports and public opinion guidance strategies. The public opinion analysis module of omni-media public opinion guidance virtual simulation platform mainly consists of three parts: analysis of public opinion package, public opinion data material library and automatic production of public opinion report. Objective and comprehensive public opinion data analysis can help us to objectively study and judge the impact, risk and trend of public opinion.

3.3. News Production Module

Content production is the whole process of carrying out communication activities such as interview, writing, editing and comments under the new omni-media platform integrating graphic, audio and video, mobile network media elements. Combined with the structural features of integrated media reports, the information elements of emergency integrated media news reports, new media graphic reports, audio broadcast reports, live video reports, integrated reporting features, principles and methods of mobile new media non-linear editing, this paper comprehensively and objectively analyzes and

interprets emergencies through multi-dimensional and all-round content production, Provide strong content support for different channels of communication.

3.4 Release and Interaction Module

News release is in the new media, financial media environment, after the analysis of public opinion events, the production of news report content released to a variety of media platforms, in accordance with the technical standards of news report content back to the integrated media platform, master the technology and ability of news report release to financial media, we media, the evaluation of news report and interactive feedback effect On the premise of achieving the basic requirements of timely interaction with the audience and guiding public opinion after the news report is released, complete the news communication, and realize timely, comprehensive and authoritative public opinion guidance report on emergencies through continuous reporting, interactive comments, forwarding and post, and effect evaluation.

4. Functions of Virtual Simulation Platform for Omni-media Public Opinion Guidance

4.1. Media Communication Function: Realizing the Transformation of Integrated Media Communication Strategy

With the rejuvenation of Internet users, the development of we media has weakened the agenda setting function of mainstream media, and the voice of public opinion of traditional mainstream media is also facing impact and challenge, which has accelerated the pace of integration of traditional mainstream media into new media. At the same time, the transformation of traditional mainstream media communication strategy is also imminent.

The public opinion monitoring system of omni-media public opinion guidance virtual simulation platform can provide public opinion monitoring, big data analysis and other services for the media, and help the media platform make full use of Internet, cloud computing, big data and other advanced technologies to realize the deep integration of media planning, collection, editing, management, content distribution business and virtual simulation, and realize the professionalization of collection and editing and intelligent management , data visualization, covering information collection, editing, publishing, contribution, management, feedback and other links, especially in the unified control of public opinion, communication channels and influence of hot events, so as to help traditional media realize the transformation of media integration communication strategy.

4.2. Social Governance Function: Build a Public Crisis Study and Early Warning Mechanism

Emergencies include natural disasters, social group events and public health events, which are closely related to people's production and life. In the current new media environment, emergency related public opinion is very active, which has a profound impact on social stability. The cause of the incident, the situation of safety rescue and the accountability of the government to the relevant personnel often become the fermentation point of public opinion. Therefore, in the new media environment, it is of great practical significance to do a good job of public opinion guidance for the news reports of emergencies, to improve the level of news publicity and to transfer the positive energy of society, and also to provide a new industry for the construction of the national financial media center Service and training mode to fill the application gap in the industry. "Network public opinion emergency early warning is an important part and the first line of defense of network public opinion crisis management, and is the basis of preventing the rapid spread of network adverse public opinion."[3] The function of information aggregation and visualization under the virtual simulation platform of omni-media public opinion guidance provides a fixed model for public opinion research. In the face of the emergence and germination of the next public opinion event, the empirical model of public opinion package can help us deduce and predict the direction of public opinion, and then enable the news media to take healthy public opinion guidance in advance. "Agenda setting theory" holds that the news media can not tell people "how to think", but can tell people "what to think". In this kind of corrective agenda setting, it can effectively avoid the expansion of negative public opinion to cause more serious public crisis.

4.3. Comprehensive Service Function: Improve Data Analysis in Other Fields

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In the field of Education: emergency public opinion guidance is not only the teaching difficulty of Journalism and communication, but also the forefront of the current practice of Journalism and communication. The virtual simulation platform of omni-media public opinion guidance can train students to use network big data tools and new media editing platform to do a good job in emergency news reporting and public opinion guidance, and improve students' future literacy as journalists to maintain the stability of reform and development. For omni-media and provide public opinion guidance and news content production to provide comprehensive personnel training services.

In the field of scientific research: the virtual simulation platform of omni-media public opinion guidance simulates the real network public opinion environment, and establishes a comprehensive system covering omni-media content integration, management, circulation, distribution, marketing, operation and maintenance. The innovative introduction of public opinion package and public opinion briefing based on big data technology has opened up a new path for the in-depth study of public opinion monitoring and public opinion analysis; its news production subsystem based on media integration technology and information release and interaction subsystem of virtual omni-media also present the landscape of omni-media news production and release under the trend of media integration development, which is very important for the realization of "omni-media, omni-media, omni-media" Holographic media, full media, full effect media "provide available research value.

5. Implementation Path of Virtual Simulation Platform Guided by Omni-media Public Opinion

5.1. Public Opinion Package Realizes the Simulation of Public Opinion Events

The emergence of public opinion events often needs to go through the development process from scattered and personalized opinions to centralized opinion topic dissemination, and then to become a mature public opinion form with great influence. This development process is a dynamic process, and with the in-depth development of media convergence, the network service forms become more diversified, the generation and dissemination of information become more private, and the decentralized network model becomes more and more possible, which makes it more difficult to analyze and guide public opinion in emergencies. The concept of public opinion package is introduced into the virtual simulation platform of omni-media public opinion guidance the public opinion scenario package collects the data and information of public opinion events, and solidifies the whole process of public opinion events into a static database through horizontal and vertical dimensions." Horizontal report" is composed of event scene, omni-media news report information and interactive public opinion, "vertical report" is composed of "0-hour" event occurrence point, 4-hour public opinion fermentation period, 24-hour public opinion outbreak period and 72 hour public opinion recession

period, presenting real public opinion scene. (As shown in Figure 2) by analyzing the virtual log, the public opinion package counts the browsing hotspots of a certain region and a certain period of time. Using the network big data technology, we can obtain the whole network public opinion data such as microblog, media website and official account in real time to ensure the details and integrity of public opinion events.
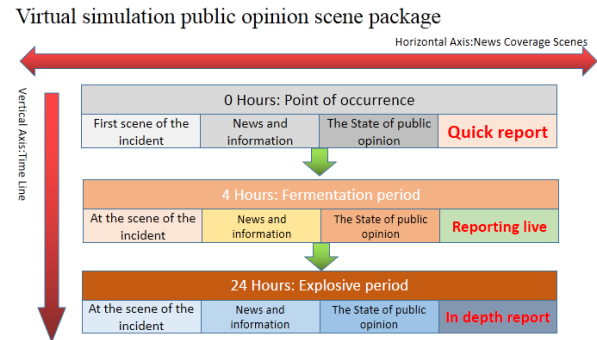

Figure 2. Public opinion package

5.2. Virtual Simulation of "Public Opinion Analysis" with Visual Data Tools

"The characteristics of big data in IT field are summarized by volume, variety, value and velocity"[4]. This summary clarifies the characteristics of big data, such as large amount of data, various types of data, low value density and high timeliness. "This is the most significant feature that distinguishes big data from traditional data mining. Only the faster and more timely the data processing speed is, the greater its value will be and the greater its efficiency will be."[5]

However, due to the deep development of media convergence, the boundary between mainstream media and new media, professional media and social media is gradually blurred. We often have incomplete and incomplete problems in data analysis. Even a homemade official account of some obscure public numbers may produce butterfly effect in today's complex information network, thus issuing public opinion. Crisis. Therefore, in the process of data analysis, we need to associate data from different fields. The virtual simulation platform realizes the visualization of user basic data, regional data, age data and social network data through intelligent data tools, presents the data changes and quantity intuitively in the form of bar chart, pie chart and other charts, and automatically produces the public opinion data information bulletin, which not only analyzes the occupation, region and year of different public opinion hot spots widely spread By comparing and analyzing the virtual website news data, forum data, blog data and microblog data, users can have a deep understanding of the spread speed and breadth of public opinion hotspots in different public opinion fields, so as to master the types of public opinion spread in different public opinion fields.

5.3. Realize the Virtual Simulation of "the Whole Process of News Production" through the System Cloud Platform

An important way to realize the virtual simulation platform of omni-media public opinion guidance is to connect all subsystems as a whole, and to grasp the relationship between these different subsystems with modular thinking. The system is a high-definition video acquisition and production platform based on database, which must be connected to the user oriented Internet distribution system. "[5], The virtual simulation platform of omni-media public opinion guidance realizes the "news production" under the contact of various subsystems by using the cloud platform of the system. The platform is based on the Quanzhen production tool platform, which can not only add the visual data graph in the public opinion briefing, but also add news material shooting, manuscript writing, mobile video shooting and other content, and edit the overall news report content And news content preview.

In today's network society of information explosion, big data has the problem of low value density while it has large quantity and rich types. The news media often ignore the deep excavation of the fact results and reflection behind the "recent facts" in the coverage of the content, thus creating the same large number of "bad news" with low value density. The "content production" system based on the virtual simulation platform of omni-media public opinion guidance can help the public opinion monitoring and public opinion analysis subsystem to systematically sort out the development process of the whole event and the public opinion content in each process, making the content more authentic and authoritative, and avoiding more "surface news" for the wrong guidance of public opinion.

5.4. Realize the Simulation of "Publishing and Interaction" Through Virtual Omni-media Publishing Platform

"In the era of intelligent media, the public, as the main body of public opinion, is further empowered, and technically can express themselves freely anytime and anywhere. In the past, one-way propaganda and indoctrination is more and more difficult to work, and dialogue and communication will become the main way to reach social consensus."[6] Omni-media public opinion guidance virtual simulation platform uses virtual omni-media technology to imitate the information release path of each media port, shows the way of information interaction and communication of each media platform, and realizes the reproduction of the real network public opinion environment after the news information is facing the public.

The "publishing and interaction" system uses the editing and publishing mode of virtual omni-media multi port and multi-dimensional content to open up a number of Internet publishing channels. In the first mock exam, we can see the "news content" that has been made in the previous module in the "released library". Secondly, we can choose WeChat, micro-blog, H5, site, PC website and other publishing channels in the publishing platform and publish various publishing modes. After the content is released, the "interactive review" module in the centralized "publish management platform" shows the ports. Audience's interactive feedback on information content. Under the virtual omni-media technology, the whole process of content publishing to user interaction feedback is realized, and an omni-media content distribution system covering omni-media content integration, management, circulation, marketing, operation and maintenance is constructed.

6. Conclusion

The virtual simulation platform of omni-media public opinion guidance has been put into use as an experimental project in many universities and news media units. Experts, scholars, students and journalists have evaluated the experiment. The main evaluation results are summarized as follows: first, experts and scholars in the same industry recognize the teaching method of the virtual simulation experiment, and think that the project reflects the news dissemination of science and engineering universities The characteristics of talent training mode of broadcasting specialty realize the goal of training talents with new media and for new media. In addition, the "gender dimension" of the course is improved in teaching, which fully mobilizes students' learning enthusiasm and initiative, and grasps more complex operation skills in a relaxed atmosphere. Second, the mode and effect of the virtual simulation platform guided by omni-media public opinion have been generally recognized by the front-line experts of news media. In the current big data background and new media environment, the training of public opinion monitoring and analysis of emergencies is very important. The platform provided by the project has important practical significance for improving the public opinion guidance level of Propaganda Department staff. Third, the virtual simulation platform of omni-media public opinion guidance has improved the social governance ability of district and county financial media centers. The public opinion package of the public opinion monitoring and analysis module and the characteristic design of the public opinion briefing enable the effective information to be under the monitoring of the platform. The professional collection and editing of the content production, release and interaction module and the whole process report realize the dialogue communication and feedback in the public space in the communication, while helping to build the omni-media communication system of the district and county-level financial media center The intelligent management of government media center effectively improves the social governance ability.

Acknowledgment

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