The Research on the Characteristics of Visual Reporting by China's National News Agency Xinhua

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Abstract. In recent years, data-driven news has also become the reporting method of many news media. Xinhua News Agency's visual report has been rapidly developing in the field of news dissemination and has become a breakthrough form of reporting, which has aroused widespread attention through a series of science and technology as well as new forms of reporting. Through a variety of forms, Xinhua News Agency is able to transform abstract data and complex events into intuitive and easy-to-understand images and animations, making the information closer to the audience and easier to understand and remember. The development of visualization reporting by Xinhua News Agency has had a revolutionary impact in the field of news dissemination. Through innovative multimedia means, the reports not only enhance the effect of information conveyance. This type of reporting not only meets the audience's demand for diverse information, but also promotes the innovation and development of the news industry. This paper aims to analyze the development process of Xinhua News Agency's visualization reports as well as to analyze typical cases of Xinhua News Agency's visualization reports.

Keywords: Xin Hua News Agency; Visual Report; Development.

1. Introduction

Today's world is developing rapidly China is a large country with a large population Xinhua News Agency is one of the most important media in China. Xinhua News Agency, full name Xinhua News Agency (January 7, 1931), headquartered in Beijing. Is the official state news agency for the government of the People's Republic of China, one of the world's five major news agencies, providing real-time text news, economic information news pictures and charts, and is also the legal press regulator in mainland China. Xinhua News Agency has more than 100 branches all over the world, and has set up branches in every province, municipality directly under the Central Government and autonomous region of mainland China, and some provinces, direct-Gan City and autonomous regions. Xinhua News Agency is one of the main sources of news for the Chinese media and publishes articles in English, French, Spanish, Arabic and Portuguese.

Rooted in the history of the anti-Japanese resistance during World War II, Xinhua's origins trace back to the founding of the Red China News Agency. Following several mergers and name changes, it was formally named the Xinhua News Agency in 1949. Its pivotal role within the Chinese governmental framework is underscored by its responsibility to disseminate crucial decisions and policies of the Party and the state. Furthermore, Xinhua assumes a prominent position as the official voice of China on the global stage.

Visual news started from Guardian, New York Times and other foreign media, which is a cross-media news report form with data as the core, information as the support and visualization as the carrier. It integrates modern information technology, data production and visual production and other applications. There are a lot type of news visualization, including information table, timeline, data cartoon, data map, tagxedo, bubble chart, etc. The visualization types commonly used in the visualization works for domestic and overseas mainstream media: data map, timeline, information table. News visualization is based on the deep mining and perfect presentation of massive data compared with traditional news reporting forms make the data-oriented and efficient communication effects.

Visual reporting by Xinhua News Agency is an innovative news form that presents news events and information to readers in a vivid and vivid way through images, charts, animations and interactive elements. This way of reporting not only allows readers to grasp important information quickly, but also enables them to dig deeply into the data and context behind the event, making complex information easier to understand. Xinhua News Agency gives the news story stronger impact and appeal with its unique visual expression. Through well-designed charts and images, readers can understand the key factors, trends and implications of the event at a glance, without having to delve into a lot of text. At the same time, this visualization can also highlight the space-time background of the event, so that readers can better understand the development process of the event and the reasons behind it.

In the era of information explosion, the visual report of Xinhua News Agency provides readers with a more intuitive and efficient way to obtain information. Whether it is news events, economic data, technological breakthroughs or social trends, the format is able to transform abstract concepts into concrete images, helping readers better grasp facts and make informed judgments.

2. Literature review

The realm of journalism has been undergoing a significant transformation in recent years, driven by technological advancements and the proliferation of data. This literature review delves into key research studies that shed light on the evolving landscape of journalism, particularly focusing on the role of interactive visual news and the impact of big data.

Chu and Hu conducted an exploratory the audience's experience with interactive visual news [1], Ma also explode characteristics and practice of visual news [2]. The literature featured in the 5th issue of Journalism Research, emphasizes the importance of understanding how audiences engage with visually presented information. This study contributes valuable insights into the evolving preferences of news consumers in an increasingly digital age.

Wahl-Jorgensen et al. provide a comprehensive analysis of the future of journalism in their work published in Digital Journalism [3]. Addressing risks, threats, and opportunities, the authors highlight the dynamic nature of the field. They discuss the challenges posed by digitalization and the need for journalists to adapt and innovate in response to changing media consumption patterns. Li offers a detailed examination of visual news within the context of the big data era [4]. Published in News Research Guide, the author discusses the current state of visual news, its unique characteristics, and the emerging trends in its development. This research contributes to a deeper understanding of how visual storytelling is influenced by the abundance of data available in the modern information landscape.

Peng Lan explores the value and application of infographics in the era of big data, as outlined in their article published in News Reporter [5]. By highlighting the role of infographics as a means of simplifying complex information. Jhon and James highlight the art and science of data-driven journalism [6]. This research underscores the multifaceted nature of data journalism, where data analysis and visualization combine to tell compelling stories.

The interplay between data and opinions in data visualization news, as discussed in TV Research [7]. By examining the practice of data visualization in intelligent prospecting. Schwalbe, Silcock, and Candello propose a new gatekeeping model for visual news streams in Journalism Practice [8]. They discuss the role of gate checkers in curating and presenting visual news content, highlighting the unique challenges and opportunities posed by data-driven storytelling.

A preliminary study on data visualization news in Xinhua News Agency's client platform, as documented in Knowledge Library [9]. The passage transformation of complexity into simplicity through data visualization, showcasing its potential for making news more accessible and engaging. The data news visualization of international mainstream news media, drawing insights from The New York Times [10]. In their work from Peking University, Ren provides an analysis of data-driven

storytelling's impact on global journalism and offers insights for its potential application in the Chinese context.

The literature review shows the pivotal role of data visualization in modern journalism. Through the infographics, data-driven narratives, and innovative gatekeeping models, these studies illuminate the transformative power of data-driven journalism. As the technology continues to evolve, the insights gleaned from these works provide valuable guidance for harnessing the potential of data visualization to create impactful and engaging news content.

At present, most of the literatures on visual news are analyzing the content and main connotation of data visual news, but the emerging visual news is not limited to the in-depth interpretation and analysis of data news, but can carry on a deeper understanding in multimedia aspects. This paper mainly describes the application of visual report in various fields of news communication.

3. Methodology

With the diversification of information transmission channels and the continuous development of digital technology, media organizations gradually adopt visual means to present news reports. Xinhua, as China's leading state news agency, also continues to explore innovations in visual reporting.

The study chooses to observe the visualization reports of Xinhua News Agency in the past five years to gain a clearer understanding of the development and trend in a longer period of time. Choosing a time period of nearly 5 years helps capture the latest innovations and changes. During this time period, from 2019 to 2023, the author conducted a systematic observation of visual reports published by Xinhua News Agency. And find 10 articles about visual reporting literature for reference and understanding. In the observation, about 60 different types of visual reports were selected for in-depth analysis. This number of choices is designed to ensure adequate coverage of different areas, topics and forms of visual coverage, resulting in a more comprehensive understanding of Xinhua's practices and innovations. The 60 visual reports were analyzed through four dimensions: diversity principle, innovation degree, information transmission effect and social response.

4. Result

In recent years, with the diversification of information dissemination channels and the continuous development of digital technology, media organizations have begun to adopt visualization means to present news reports. As China's leading national news agency, Xinhua News Agency also continues to explore innovation in the field of visualization reporting. After observe 60 visualization reports by Xinhua News Agency published, the following result are drawn, which are mainly divided into three results of science and technology, politics and people's livelihood.

The first result is science and technology, Xinhua News Agency makes full use of visualization technology to present complex scientific and technological information to audiences intuitively in the form of charts, animations and other forms. This helps popularize knowledge of science and technology and enables audiences to better understand the complex news, cutting-edge technologies and innovations. Covering areas such as artificial intelligence, blockchain, and space exploration, the report provides audiences with in-depth science and technology content by demonstrating technological advances and applications through images and data.

As an example, two innovative reports released by Xinhua were "3D News｜Interpretation of New Coronavirus" and "Virtual Reality｜On Surrounding China's Space Station". These stories highlight Xinhua's unique approach to visual journalism, by taking full advantage of the features of mobile, integrating 3D interactive modeling and AR journalism to present a vivid and engaging reporting experience. Through these two report, Xinhua demonstrated its innovative capabilities in visual news reporting. By integrating 3D interactive modeling and virtual reality technology, Xinhua successfully created an engaging reporting experience that enabled audiences to gain a deeper understanding of important events and issues. This innovative approach to reporting not only increased the interest and

engagement of the story, but also provided audiences with more relevant information and facilitated the dissemination and understanding of the message.

In terms of innovation in political reporting, especially during the 2022 sessions (the National People's Congress and the Chinese Political Consultative Conference NPC & CPPCC), Xinhua adopted a number of innovations to enhance the diversity and interactivity of reporting. During the sessions, Xinhua divided its coverage into 15 sections, such as "Highlights of the Two Sessions", "Video View of the Two Sessions", "Live from the Two Sessions", and "Representatives' Channel". "Representatives' Channel", etc. In addition, the client of Xinhua News Agency also has a special column for the two sessions, which allows viewers to search for related content conveniently by category. It is worth mentioning that each news article is equipped with "text + pictures + audio + interactive settings" to bring a richer experience for viewers.

As an innovative attempt, Xinhua Media Lab adopted a new reporting method during the two sessions. They utilized Extended Reality (XR) technology, in which an anchor worked with a virtual anchor, "Xiao Chuang", to broadcast news in a novel format. This approach allowed viewers to participate with the virtual anchor in exploring the agenda and knowledge of the two sessions. This creative application not only increased the interest of the report, but also made the audience more immersed in the meaning of the two sessions.

The last point is livelihood reporting, as the times continue to evolve, the audience's attention to the minute details of the lives of common people continues to grow. Xinhua News Agency has provided audiences with a better-quality experience in this regard. Especially in early 2023, after the Zibo barbecue fire incident, Xinhua News Agency quickly launched an "immersive punch in Zibo" news report, which presented an immersive experience for the audience. This new way of reporting made the audience feel as if they were at the scene of the incident, deeply feeling the real situation of the incident.

In addition, Xinhua News Agency also launched a series of "Voice of the New Era" special news, detailing the daily lives of ordinary people in all walks of life. This way of reporting, which focuses on the grassroots, brings viewers closer to the subject of the report and gives them a deeper understanding of their lives and endeavors. This not only enhances the closeness of the coverage, but also makes it easier for viewers to empathize with the content of the reports.

5. Discussion

The impact and potential of Xinhua's visual news report in terms of diversified coverage of scientific and technological aspects, political aspects and people's livelihoods. Through the analysis of a series of visualization news cases of Xinhua News Agency. Xinhua's visualization news has significant advantages in presenting complex information. Through diverse forms of visualization such as charts, VR, AR, XR and animation, etc. Xinhua is able to transform huge amounts of data and information into intuitive and easy-to-understand visual displays, helping audiences to quickly grasp the core information, thus enhancing the effectiveness of information conveyance. This form of news presentation not only enhances the readability of information, but also reduces the cognitive burden in the process of information communication.

The science and technology visual report, through a unique design. In "3D News｜Interpretation of the New Coronavirus", Xinhua News Agency presented the form, structure and characteristics of the new coronavirus to the audience in a realistic way through a well-designed 3D interactive model. Viewers can freely rotate, zoom in and out of the model through their mobile devices, exploring the virus' external appearance in 360 degrees without any dead angle, so as to understand its structure more deeply. This innovative visualization not only enhances the audience's sense of interactive participation, but also provides more detailed information about the virus, giving them a clearer understanding of this important topic.

Another story, "Virtual Reality | On Surrounding China's Space Station" utilized virtual reality technology to allow audiences to explore the Chinese space station as if they were there. Through AR

news reporting, viewers can use mobile devices in a real environment to project a virtual model of the space station into a real scene. This innovative approach allows audiences to experience the appearance and structure of the Chinese space station up close and from a new perspective, at home or anywhere, bringing them closer to the frontiers of space exploration.

The strengths of this new media format lie in its immersive nature, allowing audiences to get closer to news events, get a closer look at the microstructure of a virus or explore the working lives of astronauts in an immersive setting. They are a powerful educational tool that can provoke deeper thinking and more immersion behind news events. However, there are some challenges to the use of these formats. Information overload is one of them, and overly complex 3D presentations can be disturbing and difficult for some audiences to understand. In addition, sometimes elements inside the 3D model are not clearly presented, which may lead to misunderstanding and thus affect the audience's true understanding of the news event.

In the field of political reporting, Xinhua News Agency demonstrated a remarkable innovative power during the two sessions. This innovation not only permeated the news coverage, but also explored in-depth the introduction of the sessions, thus presenting a more comprehensive picture of the substance and importance of the sessions for a wide audience. In the warm-up activities before the two sessions, a 27-second short video titled "How much do you know about the two sessions丨What are the two sessions?" succeeded in providing viewers with a more in-depth understanding of the connotation of the two sessions. In addition, there was a documentary titled "Ten Stories of Spring", which brilliantly documented China's rapid development and numerous achievements over the past decade.

These innovative initiatives have played a positive leading role in political reporting. Firstly, Xinhua introduced the basic concepts of the two sessions to the audience in a concise and refined manner through short videos and other novel media forms, enabling the audience to quickly grasp the core points and have a preliminary understanding of the sessions. Secondly, the documentary titled "Ten Stories of Spring" provides audiences with a broad time-span and rich perspective, vividly demonstrating China's developmental achievements in the past decade. This long time-span observation not only helps audiences better understand China's development process, but also gives them an in-depth feeling of China's great changes and progress.

The "Jinping" style column series is a thematic series that Xinhua has been updating since 2017. Xinhua closely follows the important activities of General Secretary Xi, especially at major points and key moments, quickly grasps the focus and highlights of the news, and rapidly disseminates them in the form of short videos, conveying the spirit of the General Secretary's speeches to the audience at the first time, and vividly displaying General Secretary Xi Jinping's image as a leader.

These short videos, characterized by their rich content, short duration and fast dissemination speed, bring audiences an immersive experience different from that of the purely written medium, creating a sense of close communication in a context in which the audience can be more deeply integrated. The short videos are usually between 2 and 4 minutes in length, and each video shows multiple sides of General Secretary Xi Jinping with different themes. These videos are often accompanied by a pure music background, and by alternating pictures and videos with concise text, a relaxed atmosphere is created, and the perfect fusion of audio and video further strengthens the audience's sense of empathy.

In the area of people's livelihoods, the "Voice of the New Era" series of news reports has been a noteworthy set of works that have written a vivid chapter on China's progress and development in various fields over the past decade. These reports not only showed domestic audiences China's development achievements, but also conveyed the rapid rise of China to the world. They show the rapid progress of China in different fields in multimedia format. Through visualization, these reports transform abstract data into images and sounds, making it easier for audiences to understand and feel. This format not only provides more in-depth insights for domestic audiences, but also conveys China's positive dynamics and growing strength to the international community.

Visualization reports in the field of people's livelihoods are of particular interest, most of which are closely related to people's lives, such as the Vlog "Immersive Card Zibo", which is an immersive

card form that is not only close to people's daily lives, but also able to inspire empathy among the audience. By focusing on ordinary people and daily scenes, these reports not only show specific development achievements, but also truly reflect people's expectations and needs.

6. Conclusion

In conclusion, the visual report by Xin Hua News Agency plays an increasingly important role in today's news dissemination field, presenting information to the audience in a more intuitive and vivid way through multimedia means. This innovative form of reporting not only improves the effect of information communication, but also enriches the reading experience of the audience. Visualization of the report for the information conveyed to bring a stronger impact. Through charts, images, animations and other forms, Xinhua News Agency is able to transform complex data and information into easy-to-understand visual presentations, enabling audiences to quickly grasp the core content. This visual impact not only improves the readability of the information, but also allows the audience to understand the subject of the report more deeply. Interactive charts, short videos, virtual reality and other means allow audiences to explore the information more actively, thus enhancing their sense of engagement. This interactivity not only promotes the wide dissemination of information, but also enhances the audience's in-depth exploration and reflection on news events. Visualized reporting breaks through the limitations of traditional reporting and provides a broader space for creativity and expression. Through innovative forms, Xinhua News Agency is able to convey stories to audiences in a more artistic and emotional way, triggering empathy and emotional resonance. At the same time there are many challenges to recognize the challenges facing visual reporting. Ensuring the accuracy of information and avoiding dramatization and misrepresentation are key. In addition, different audiences have different visual literacies and need to consider how to balance the delivery of information and user experience in their design. It gives more vitality and creativity to news communication. It also ensures that the information is true, accurate and comprehensive.

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