Research on the operation process of specialized teams in visual news production from the perspective of media convergence

1Mengjia Zhao, 2Fuyao Han
[1]Xi'an International Studies University,College of Asia and Africa, Xi'an 710128, China
[2]School of accountancy, Capital University of Economics and Business, Beijing 100070, China
[*]Corresponding author E-mail: zmj_persistent@163.com

Abstract: Under the development trend of multifunctional integration of various media, traditional news reporting methods can not make readers understand well when facing some complex news information. Therefore, visual news production based on charts, animations and interaction has played a great advantage. Based on this, this paper adopts the research method of in-depth interview, further explored the operation process research of special class group of visual news production, pointed out the guarantee mechanism of visual reports in the authenticity and objectivity of news, and aimed at the in-depth thinking of its current problems and future development.

Keywords: Media convergence; Visualization news; News authenticity; Objectivity of news

1 Introduction

During the epidemic in Beijing in 2022, a visual news introducing the running track of omicron patients by graphical method was presented to users, mainly including summary data, graphs, word clouds and other forms. Different from ordinary popular science news, visual news with graphic relationships can more clearly show the trajectory of COVID-19 patients, helping readers easily grasp the information and make further decisions in the first place. In the era of "black mirror", in which digital

products dominated by black display screens occupy the public's all-weather space and time, every user is suffering from the bondage and shackles of information cocoon, information overload and entertainment to death. In order to better educate the public and guide public opinion, mainstream media need to make full use of news production tools. In this article, through in-depth interviews of ten journalists from the perspective of news production of professional media fusion of horizon, visual news production program team operation process were studied to explore, to enhance visual news professionalism, accuracy and further study interest, comprehensive deconstruction program team operation process to produce visual news in China.

2 Literature Review

In the past, most researches on visual news were carried out from the way of presentation and did not involve the mechanism. However, the innovation of this paper is to start from the theory of news production and try to answer the following questions: What is the operating mechanism of this visual news team? What are the effects of timeliness on the operation of specialized teams? What is the guarantee mechanism of news authenticity in operation?

2.1 News production from the perspective of media convergence

Under the background of media convergence, news communication has more powerful digital technology , network foundation and terminal equipment is diversified. Traditional news reports can no longer meet the needs of the audience and achieve the desired communication effect. Therefore, media convergence not only requires the media to cooperate with each other in content and technology, but also requires the integration of different communication channels, media and platforms, shaping a new all-media news landscape. News report has carried on the exploration of transformation and upgrading, showing the characteristics of diversified collection forms, three-dimensional reporting methods and interactive feedback behavior. Li Anqi (2017) points out that under the vision of media convergence, news information no longer sticks to the traditional combination of text and text, and begins to explore the mutual integration of text, picture, video, audio, interaction and other forms. News can be disseminated to users through news websites, clients and platforms in the form of

visualization, so that users can get a brand new news experience.

Poole (1983), a professor of Massachusetts Institute of Technology, proposed the concept of media convergence, that is, media of different forms are integrated with each other, presenting a trend of multi-functional integration. Research on media convergence in China is later than that in the West. Yang Ming (2013) introduced the definition, form and influence of media convergence in his Introduction to Media Convergence, and discussed the transformation and production of traditional media in the era of media convergence. In a broad sense, media convergence includes the integration of all media and related elements.Tthe multi-field and multi-industry cooperation in society, which also requires the news media to actively explore the best way of news communication in order to obtain the best news communication effect.

2.2 Research on visual news

Visual journalism started from the attempts of the Guardian, The New York Times and other news media, which continues to develop with the deepening of media convergence. British newspaper The Guardian published the earliest data news in 1821. Simon Rogers (2015) and the Guardian team in Data News Trends: Releasing the Power of Visual reporting, the book uses detailed cases to sort out classic visual journalism cases, proposes how to have data thinking, how to create professional data journalism, and shows the connotation and extension of data journalism. China's exploration of visual news began after 2014. The visual expression of news originated from data news. In the context of media convergence, data news, as a data-centered reporting method, provides exploration direction for the reform of journalism, and then derives visual news, enabling people to observe data more intuitively, so as to understand news. Chen Ke (2014) pointed out that in order to adapt to the development trend of visual news, visual news was presented in more diversified forms. Programmers were involved in the news production process, journalists had more cross-boundary skills, and visualization was gradually transformed from plane to three-dimensional.

With data as the core, information as the support, and visualization as the basic carrier, cross-media news reports are increasingly playing their advantages and characteristics in today's news reports. The operational process of visual news production has aroused the academic research from multiple perspectives. Wilson Lowrey (1999) proposed the concept of visual news framework, standardizing visual

news from the aspects of content production to value orientation, emphasizing more explanation and understanding in visual news, and connecting images with news content. Wang Chuanbao and Teng Han (2014) have theoretically expounded visual news. This paper expounds the concept of news visualization from the perspectives of news presentation, production process and development of news industry. It points out that under the guarantee of new media technology, visual news can meet the needs of the audience, achieve open data sharing and improve the efficiency of information dissemination.

It can be concluded from the above literature that: Visual news is becoming the research emphasis of the news industry, under the background of media convergence in the form of visual news more rich. The visualization of news is no longer a simple chart, data, information, VR, AR, H5, animation and other new form of visualization are root, transmission form also from 2D to 3D, more three-dimensional visual communication.

3 Research Methods

In this paper, the interview method is used to answer the above questions.

3.1 In-depth interview method

3.1.1 Interview outline making

The interview questions are mainly divided into three parts:

The first part mainly involves the basic information of the interviewees, including their enterprises, positions and main work contents.

In the second part, the dimension of research questions is reduced to interview questions. Including his views on the effect of visualized news during the COVID-19 outbreak, and what is the operation mechanism of the visualized news team? What are the effects of timeliness on visual news production?

The third part, according to the respondents' answers in the second part, further explores how to achieve the truth and objectivity of visual news production. In the process of interviews and research, researchers tried to avoid the four ethical issues and deviant behaviors emphasized by scholar Alan Brightman: causing damage to research

participation, not using informed consent documents or materials, violating the privacy of research participants, and deceiving research participants.

In addition, if the interviewees have any questions or dissatisfaction during the interview, they can keep silent or quit during the interview. The interview materials that the interviewees declared they did not want to make public were not included and cited in this study.

3.1.2 Selection of interviewees

This study conducted 255 minutes of semi-structured in-depth interviews with 10 journalists. The interviews began in May 2022 and ended in July 2022. The interviewee first included A, A political reporter of Metropolitan Times, and then contacted the other 9 interviewees through friend circle and questionnaire. The interviews were conducted by telephone interview, wechat text interview and one-on-one face-to-face interview. The interview results were compiled into a verbatim transcript of 9,860 words in total. The processing of the interview content was completed by Zhao Mengjia. Basic information of the interviewees is shown in the table.

The interview object	gender	Place the unit	Their jobs
A	female	Metropolitan Times	Political reporters
B	female	People's Daily	Video director
C	male	Xiangjiang Morning Newspaper	All media editor, New Media Center
D	female	Guangming Daily	The people's livelihood reporters
E	male	CCTV	The fine arts editor
F	male	Economic Daily	Economics correspondent
G	female	The Xinhua News Agency	All media editor, New Media Center
H	female	China News Service Hebei Branch	Big data analysis of International Communication Laboratory
I	male	China Youth Newspaper	New media editor
G	male	Surging news	Rong Media Reporter

Through in-depth interviews with these 10 journalists, we have a clear understanding of the operation mechanism of visual journalism team. In the process of

screening interviewees, we deliberately selected their units and positions to achieve the authenticity and comprehensiveness of the research in this paper, and obtained a group of satisfactory research results.

4 Research Results

4.1 Scene construction has become an important way of visual reporting

As new media technology has the characteristic of audio-visual accompaniment, "scene construction" has become an important innovation path of visual reporting (Niu,2022).

"Generally speaking, different news departments have their own visual news production teams, and the team is not very large, I was in a team of five people. In addition to the daily work division, we will hold a simple group topic selection meeting every two or three days to discuss and determine the content and format of the next few days." (H)

We received similar answers from nine reporters including A. We found that visual news team is a news production mode consisting of 3 to 5 people who carry out scientific division of labor, coordination and cooperation, and news production. Due to its flexibility, the news production efficiency and the news presentation form are greatly improved.

4.2 Different types of news have different operation modes

Through in-depth interviews with 10 news practitioners, the specific operation mechanism of visual news in different news categories can be divided into two categories as follows:

4.2.1 Current political news

In fact, current political news is closest to the people and closely related to their lives. Even seemingly marginal policies and regulations touch the lives of thousands of families (Li,2022). In recent years, political news visualization has carried out new exploration in the form of animation, H5, short video, AIGC and other forms, and

achieved good communication effect in the aspect of political propaganda and public opinion guidance by virtue of the advantages of multiple platforms. In major meetings of government departments, sports events, policy releases and other current political news, the spokesman's conference draft, sports schedule, policies and regulations and other key information will be generally given to the major official media in advance. After that, the relevant specialized teams of the media will write relevant news quickly to make preparations for the subsequent press release. Before the release and then according to the actual situation, the original news works to be adjusted, after the review of the direct release. At the same time, with the popularity of the meta-cosmic media system, the exploration of the current political news is of great significance to China's domestic and international news communication. Take the current political coverage of the two sessions in 2022 as an example. During the two sessions, People's Daily gave full play to the strong reporting advantages of mainstream media and produced visual news reports dominated by exquisite H5. The first super simulation virtual anchor appeared in the two sessions report; People's Daily online virtual anchor "xiaoqing" to send two sessions news.....

4.2.2 Livelihood news

For the public, the vitality hot spots related to people's life always get special attention, and people's livelihood news has a natural audience closeness. In the operation of special teams and groups, more journalists go deep into the masses, base themselves on the people's livelihood and serve the public. Special teams should always pay attention to local public opinion monitoring platforms and have a high degree of news acuity. When a newsworthy lead is found, two go on the run, and one stays in the office, waiting in real time for field reporters to send back information. People's livelihood news visualization practice, especially the dynamic interactive visual news presentation has achieved a very wide spread effect. It not only greatly facilitates the general public to understand some professional information, but also enhances the practical utility of financial media at all levels in serving the public.

4.3 Possible mechanisms leading to the generation of false news

It is worth noting that in the visual exploration of people's livelihood news, some

paid news and false news lacking the guiding ideology of news authenticity and objectivity also appear, which to some extent eliminates the credibility of news media in the hearts of the audience.

"In my front-line work, I sometimes come across journalists who violate journalistic norms and accept paid journalism for their own personal gain." (I)

The visual journalism team has some improper system assessment in the mechanism of media convergence. There is a quantitative mechanism of business indicators between each special team and group, and the number of articles published and edited by journalists is directly related to their salary. Although to a large extent, this has aroused the enthusiasm of each special team writing, but also spawned a small number of journalists to actively produce false reports. In addition, the production cost of false news from the perspective of media convergence is low, which further connives at the generation of false news driven by interests. In this regard, relevant government departments should establish and perfect a complete compulsory laws and regulations to restrain the media industry, so as to make it more standardized and do a good job in serving the public.

4.4 Authenticity is the core principle of the special class group

In answering the guarantee mechanism of news authenticity in specialized teams, interview subject C mentioned that "in our news work, we are often trapped in the mystery of news authenticity and timeliness." Indeed, in a digital age where news is captured in milliseconds and microseconds, professional media's insistence on authenticity is even more precious. On this issue, the following from the news team from the interview, writing, broadcast three perspectives to expand the discussion:

From the perspective of interview, the team of visual journalism will divide the work of topic selection. After the topic selection is determined, a reporter will write the interview outline, and then carry out the interview after approval. From the perspective of media, users and platform, professional teams need to take these three aspects into consideration of the truth and value of news. In actual interviews, journalists should keep keen news insight and skillfully guide the remarks of interviewees to obtain a more overall objective truth.

From a writing standpoint. "News is an organic movement of newspapers and periodicals". In this era of rapidly changing information, visual journalism team

needs to pay more attention to the issue of "contextual truth". Not only should the information collected be screened discriminately, but also the network public opinion monitoring platform should be given full play to carry out information retrieval and the investigation of the third party and other perspectives of the news combined with the social environment of the news itself.

From a broadcasting point of view. In the era of new media, the homogenization of information content, including news title, reporting Angle and news form, is common, which also brings certain challenges for the visual journalism team to realize the authenticity of news. With the extensive application of algorithmic technology, the user's attention is flooded with all kinds of information. How can we get out of the dilemma? Although this is worth thinking about, it also shows that there is still a lot of room to explore in the way of ensuring the authenticity of news.

4.5 The impact of timeliness on the visual news team

When we conducted further in-depth interviews on the innovative collaboration of visual journalism team in the new media era and tried to get answers, we were pleasantly surprised to find that all 10 interviewees proposed that news production efficiency would be further improved and news works would be more widely disseminated under the operation of visual journalism team. The answer of interview subject A supports our idea.

"In order to make visualized news better, news editors in the editorial department often cooperate with art editors in the visual department and big data editors in the new media department to form 'specialized teams' to collect data, process data, draw visualized news maps and submit them to superiors for review and release as soon as possible." (A)

During the epidemic in Beijing in 2022, a visualized news that introduced the relationship map of omicron patients' running track by graphical method was widely spread on the Wuwei Platform and played a good role in health communication and knowledge popularization.

In addition, the Chinese government also attaches great importance to the prevention and control of the epidemic under the Winter Olympics. As early as December 23, 2021, at the press conference of the State Information Office, Han Zirong, full-time vice President and secretary General of Beijing Winter Olympic Organizing

Committee, gave a detailed introduction of the prevention and control measures of public concern. Mainstream media such as People's Daily, Beijing Daily, People's Daily Online, Xinhua News Agency and Chinanews.com made relevant reports in the form of video, text and H5 in the first time to meet the public's demand for timeliness in paying high attention to major international events in China. However, in general, the current visualization exploration only realizes the visualization from readable to visual and from static to dynamic, and most of them are still in the visualization stage of one-way display (Liu,2022). The data sources of visual reports are relatively single and highly dependent on official data (Wang,2020).

5 Summary and reflection

In the era of integration of media, visual news special class and group use simplified words and rich three-dimensional presentation methods to make the dull numbers vivid and intuitive, in line with the reading habits of users in the era of "reading pictures", improve the efficiency of information transmission and expand the scope of news transmission. In the production of visual news team, news interviews are conducted with primary sources and multi-sources, especially in the early stage of the COVID-19 outbreak, when information is scarce. Once information sources with high certification and credibility are used, the authenticity of news is guaranteed and effective information can be provided to the audience. Visualization is not only a tool, but more like a way to present and disseminate information, which can help the audience to know and understand the information behind the data (Xu,2019). In addition, the visualization journalism team graphically integrates professional medical knowledge and public health data to facilitate the public's understanding of professional medical knowledge, correct response to the epidemic and scientific protection, and reduce the panic caused by unequal information.

At present, visual reporting of data news has achieved considerable results, but there are also some problems, such as limited communication channels, uneven news quality and rampant false news, which need to be coordinated and improved by various parties:

Firstly, the government should promote data disclosure in a reasonable and orderly manner and improve information release channels. During the COVID-19 outbreak, ensuring the public's "right to know" is an important reason for government information disclosure and data opening. Reasonable information disclosure can satisfy the public's

demand for information on the epidemic and reduce the panic and anxiety caused by information asymmetry to the greatest extent. At the international level for data open degree of evaluation system has a "complete, single-handedly, timely, available, machine readable, non-discriminatory" six indicators, regulated the standard of visual data news from different dimensions, the government can further broaden the unified information channels, specification data statistics, release process, With authoritative, reliable and comprehensive data sources as the guarantee of data news visualization, the government can improve its credibility while realizing information disclosure.

Secondly, the media should optimize the quality of data journalism. Although the production team of specialized news team provides certain authenticity guarantee for the news production of public health emergencies, in the era of new media where traffic is king, fake news and paid news occur frequently, and they lack professional ability in the face of some highly professional news events. The news media shall strengthen the control for the newsroom hair, depth excavation together its own data resources, widen the channel of the data journalism development, for professional strong, may seek "foreign aid" to assist the audit content, while shorten the time period of the report, amplify the news for the user data, improve the quality of news, provides the firsthand material, eliminate the uncertainty.

Finally, the audience should also improve their media literacy. Visual news brings convenience to the audience, but also brings some false information. In this regard, as the receiver of news, the audience should improve the ability to identify the news, timely participate in feedback, and play a supervisory role in the authenticity of visual news.

According to the current research, visual news production teams play an important role in information dissemination in daily news reports and major emergency reports, jumping out of the traditional framework, breaking professional barriers, responding to the form of content, rational use of resources, and exploring the unity of timeliness, authenticity and fairness. As the participants of news communication, the government, media and audience should strengthen their thinking and the construction of visual news specialized classes and groups. This article belongs to the empirical study, using the depth interview method to data news program group to study the operation model, there are some deficiencies: the research scope leads to smaller sample size is small, the selection of ten talk to all the data, as a representative of the sample source is not enough to have many excellent journalists also involved in the news program

production team. Production of melting horizon, visual media news program team works, is the only way data journalism development, data from the traditional news to the press, is the evolution of media technology change in the way of media production, we want to keep up with the trend of The Times, to keep pace, conforms to the social development mode of news production.

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