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Research on policy communication and guidance effect of picture news (Postprint)

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Abstract

The new forms of news communication in the multimedia era are endless. This article takes the rapidly developing society as its background and employs audience survey methods as its primary research methodology. It explores the advantages of map-based news. Our research has found that visual news and visual news featuring graphic relationships can play a more effective role in policy communication. Compared with video news, Tap News can achieve a more distinct effect in policy communication.

Full Text

Preamble

Research on the Policy Communication and Guidance Effects of Graphic News

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Abstract: In the multimedia era, novel approaches to news communication continue to emerge without end. Against the backdrop of a rapidly developing society, this article employs audience survey methods as its primary research methodology to explore the advantages of graphic news. Our studies reveal that visual news, particularly graphic news, can play a more effective role in policy communication compared to video news, demonstrating distinct effects in policy dissemination.

Keywords: graphic news, policy news communication, media ecology

1 Introduction

China is currently in a new era of rapid development driven by scientific and technological advancement. Technology is transforming production methods, social structures, and lifestyles, while the market economy system flourishes. In this context, news communication must evolve with the times to meet the public's need for time-efficient information consumption. However, the rapid development of digital technology, with its dense web of channels and diverse communication subjects, has weakened the dissemination power of mainstream media to a certain extent.

Today, news communication content—such as coverage of the “Two Sessions”—is increasingly presented through graphic methods, including data summaries and curve charts in big data news formats. We have observed that compared to the linear nature of text and the temporal constraints of video, graphic news can clearly present national development goals and enable readers to easily grasp the relationship between these goals and individual interests, thereby facilitating their engagement in socialist construction. This observation raises two key questions: Can graphic news demonstrate more effective policy communication? What is the underlying mechanism of its effectiveness?

2.1 Literature Review of Graphic News

The phenomenon of graphic news has attracted multi-perspective study within the academic community. The German philosopher Martin Heidegger, in his masterpiece *The Age of the World Picture*, conducted a comprehensive analysis of the arrival of the visual era from a societal perspective. He argued that “world picture” does not mean an image *of* the world, but rather refers to the world being grasped *as* an image [1]. In his view, humanity was entering an era of visual communication centered on images. With the development of mobile internet, the tide of informatization has surged continuously, enveloping us in countless visual fragments through television, film, networks, advertising images, and animation. Visual technology has carried out cultural communication globally, increasingly becoming a dominant mode of human communication that profoundly affects the process of modern civilization. Heidegger's prediction has been continuously validated and remains an indisputable fact.

Foreign scholar Bernard Stiegler analyzed intelligent media in the convergent media era from the perspective of technological change in his book *Technics and Time*. He posited that humans were born with a deficiency—God forgot to endow them with certain attributes during creation—leading them to develop technology as a form of prosthesis to compensate for this lack [2]. With continuous creation of external prostheses, intelligent prosthetic devices have remedied this forgotten deficiency to near completion. Today, the advancement of humanity's “external prostheses” promotes the continuous development of convergent media toward intelligence, realizing deep coupling between media and intelligent technology through integration and sharing.

Domestic scholar Jiang Hongjian, editor-in-chief of *Dazhong Daily*, has shown that in 1978, the American weekly *Time* pioneered a brand-new form of news reporting by combining text descriptions with illustrations. During the 1980s and 1990s, newspapers in the United States, Europe, and southern China flourished and entered public life. With scientific and technological progress, we have entered a “visual era.” Graphic news caters to modern audience psychology; compared with large blocks of tedious text, graphic news with vivid images is easy and pleasant to comprehend at a glance, allowing readers to perceive the depth and background behind the news through layout language. It is more intuitive, figurative, and visually impactful [3].

Zhang Ke conducted detailed research on the development of graphic news from the perspective of design concepts, examining why graphic news in China enables more efficient information dissemination. The research demonstrates that attributes of accuracy, aesthetic quality, and simplicity function as a “visual optimization weapon.” Among the 13 award-winning layouts of the 2014 China News Award, five featured graphic news as the entire visual center, while three other layouts utilized graphic news. In 2015, during the National Two Sessions, major domestic newspapers also employed graphic methods to participate in news reports, interpreting proposals from representatives and explaining government work reports [4].

2.2 Literature Review of Information Theory

Information theory was proposed by American mathematician Claude Shannon in October 1948. In *A Mathematical Theory of Communication*, he stated that “the fundamental problem of communication is that of reproducing at one point either exactly or approximately a message selected at another point” [5]. Media Ecology was created by Marshall McLuhan (1911-1980), though he did not use the term publicly. In 1968, Neil Postman (1931-2003) first publicly employed this term. These two theories have attracted significant attention from scholars both domestically and internationally, yielding substantial research outcomes.

Information theory is an applied mathematics discipline that employs probability theory and mathematical statistics to study information, information entropy, communication systems, data transmission, cryptography, data compression, and related issues. An information system is a broad term referring to all equipment necessary for transmitting messages from one location to another. Information theory, as the theory of information, should have its own clear research objects and scope of application, yet since its inception, scholars have held differing understandings of it [6]. Information theory finds wide application across various fields: coding, cryptography and cryptanalysis, data transmission, data compression, estimation theory, and encyclopedia editing [7].

Domestic scholar Li Famei studied the application of information theory in journalism by examining the similarities and differences between news communication and information theory. From the perspective of information science,

the pursuit of effectiveness and reliability should follow five basic principles: authenticity, timeliness, semantic clarity, comprehensiveness, and popularization [8]. Wang Wenjuan studied the process and value of the Chinese press through information theory, enabling Chinese journalism to explore news communication from an information-theoretic perspective. From this viewpoint, scholars clarify the relationship between news background and news information, establishing that news background serves as an important vehicle for news information [9]. According to information theory analysis, information equals negative entropy. The noise of internet transmission increases entropy, creating audience demand to understand the relationship between national development and personal growth. Text is more rational and better at explaining logic, while video is more emotional and better at elaboration. Graphic news offers clearer expression, making it highly suitable for analyzing news such as Two Sessions coverage.

2.3 Literature Review of Media Ecology

Media Ecology was established by Neil Postman. Building on McLuhan's "the medium is the message," this theoretical school examines the role of media in society. Marshall McLuhan's view in *Understanding Media* posits that media can penetrate deeply into people's subconscious, altering their perceptual balance without being noticed or resisted [10].

In the field of news communication, domestic scholar Hu Xiujuan has studied the relationship between media ecology and news visual communication in the big data era. The "fish-water theory" of media ecology holds that media is water and people are the fish within it. Based on this view, the media through which news visualization occurs serves as water, yet its production remains inextricably linked to environments beyond water. As Levinson stated, "The fire that ignites technological development often comes from outside technology. Social, economic, media, and even material conditions converge to become external conditions that assist technological development" [11]. The advent of the big data era has transformed the media environment, affecting changes in people's media consumption habits. Consequently, news visualization has developed under the influence of these media living environments and usage pattern changes. Specifically, the emergence of news visualization results from media technology development reaching a certain stage. Media ecology, as a discipline studying media technology and media environment, offers significant insights for news visualization development through its research on media technology trends and momentum [12]. However, the aforementioned studies did not examine the phenomenon of graphic news from the perspective of communication and guidance effects, thus failing to address questions about its promotional and guiding influence.

2.4 Research Questions

Therefore, this article draws on theories of communication effects and priming effects to address the following questions: Can graphic news demonstrate more effective policy communication? What is its underlying mechanism? This article employs audience survey methodology to answer these questions.

3 Research Methods

This article adopts audience survey methodology. First, we established a comparative framework examining the effects of graphic news alongside text news and video news according to our research questions. We then designed questionnaire items that operationalized the variable of news type into specific reports of the same news content presented as graphic news, video news, and text news.

In this study, the dissemination and guidance effects of policy news were operationalized into 16 questions across three news types, such as: “I believe the above text news enables me to obtain the same amount of information efficiently when time is limited”; “I believe the above graphic news allows me to clearly understand the current situation, new requirements, main goals, key objectives, and key tasks of the ‘Outline’”; and “I believe the above video news enables me to intuitively see future key development trends.” Respondents scored these items on a five-point scale: Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree.

This study surveyed over 300 audience members. The questionnaire was administered from February 2023 to March 2023. The sample included college students, teachers, frontline media practitioners, individuals who regularly follow news and information, and other professionals. Additionally, we expanded our sample through broader social recruitment. The survey covered audiences diverse in age, region, and upbringing environment, resulting in low homogeneity. The investigation employed electronic questionnaires. Statistical analysis was conducted, and the results are as follows:

H1: In policy propaganda, compared to text, graphic news presents information about national development goals more clearly. This hypothesis is supported.

H2: In policy promotion news, compared to text, graphic news enables more efficient acquisition of the same amount of information. This hypothesis is supported.

H3: In policy promotion news, compared to text, graphic news users exhibit more rational interpretation. This hypothesis is supported.

H4: In policy promotion, compared to video, graphic news is more intuitive. This hypothesis is not supported.

H5: In policy promotion, compared to video, graphic news saves more time. This hypothesis is not supported.

These findings lead us to conclude that in policy news dissemination, graphic news is clearer and more efficient than text news. Simultaneously, we must develop diversified communication methods for policy news, as both video news and graphic news can jointly facilitate policy communication.

4.1 High Interpretation Efficiency: Graphic News Makes Policy Communication Clearer and More Efficient

In policy news communication, graphic news demonstrates greater clarity. We selected different communication methods for the same news content—“The Central Committee of the Communist Party of China and the State Council Issued the ‘Outline for Building a Quality-Powerful Country’”—for investigation.

When examining issues such as information acquisition and convenience in graphic versus text news, we found that people can understand specific information content more clearly through graphic news than through text news. Graphic news enables viewers to make rational interpretations of policies with objective and authentic consistency, and it helps audiences interpret phenomena of “public opinion influencing policies” with minimal subjective judgment.

Marshall McLuhan, a representative of media ecology, proposed four laws of media: enhancement, obsolescence, retrieval, and reversal. Occasionally, the emergence of new media eliminates certain old media and human behaviors. For example, following the advent of telephone and email, traditional handwritten letters and newspapers gradually withdrew from the historical stage. In our questionnaire feedback, we obtained numerous reasons why respondents believe graphic news is superior to traditional text news, including “the content of graphic news is clear at a glance” and “graphic news enables clear mind-map logic.” These advantages of graphic news are replacing text news.

Paul Levinson proposed in his media evolution theory that media are always in a process of evolution. When the internal and external environments of media dependency change, media can self-regulate and adapt through various mechanisms. As human society has entered a high-speed, fast-paced period, people have placed higher demands on information acquisition and dissemination efficiency. In our questionnaire feedback, we obtained reasons why graphic news is superior to text news, including “the amount of text is small, reducing the time needed to extract key information and decreasing reading time.” News that aligns with the environmental demands of the era has gradually gained public favor.

4.2 Diverse Forms: Video and Graphic News Jointly Facilitate Policy Dissemination

In policy news communication types, graphic news and video news each possess distinct advantages. Respondents’ answers regarding the effectiveness and convenience of obtaining information from graphic and video news were divided,

preventing intuitive conclusions. Descriptive analysis of graphic and video information shows that graphic news has a mean score of 3.52, while video information has a mean of 3.49, suggesting graphic news should be more intuitive. However, no statistically significant difference exists ($T = 0.336$, $P > 0.05$). Descriptive analysis of time-saving between graphic and video news found that graphic news has a mean of 3.4, while video information has a mean of 3.52, indicating video content holds an advantage in saving audience reading time. Consequently, we cannot conclude that graphic news plays a more effective role in policy communication than video news.

In 1979, Levinson systematically proposed the “humanization trend” theory of media evolution in his doctoral dissertation *Human Replay*. The “humanization trend” refers to the tendency of media technology to meet human needs and facilitate information exchange during evolution. Levinson believed that as evolution progresses, media contain increasingly more human nature and decreasingly less inhumanity, making the direction of media evolution more suitable for human sensory and physiological characteristics. For example, television replaced radio, and mobile internet has replaced traditional television sets. In our questionnaire feedback, we found that survey respondents had different reasons for supporting the two news types. Video news users focused more on convenience, while graphic news users emphasized efficiency—graphic explanations are clear at a glance, enabling rapid information acquisition without watching complete long videos. Different communication methods and various types of convergent media products possess both distinctive features and complementarity. In policy news communication types, graphic news and video news each have advantages that jointly facilitate policy communication.

5 Summary and Reflection

This study employed audience surveys to examine the phenomenon of policy dissemination and guidance effects of graphic news, attempting to answer questions about its relationship to policy communication effectiveness. The research finds that compared to text news, graphic news can play a more effective role in policy dissemination.

The mechanism underlying graphic news’s advantages lies in its clearer information presentation and greater time efficiency for audiences in obtaining information. It is particularly advantageous when presenting objective content. Using the same news content—“The Central Committee of the Communist Party of China and the State Council Issued the ‘Outline for Building a Quality-Powerful Country’”—as an example, graphic news adopts a mind-map mode with clear textual logic, whereas text news employs lengthy textual introductions with large reading volumes and non-prominent key points. This explains why graphic news is gradually replacing text news for policy news dissemination.

The survey results comparing video news and graphic news cannot definitively identify which type is more effective, as each has distinct advantages and dis-

advantages, and both jointly facilitate policy dissemination. This demonstrates that graphic news retains irreplaceable significance, reflecting the rapid development of graphic news phenomena. Simultaneously, it provides more popular communication methods for policy dissemination in modern China. Using the “three-child policy” as an example, the *News 1+1* video news program not only interpreted the policy but also shot background scenes in hospitals, schools, and families, while a sociology professor summarized public comments, making the news more three-dimensional. In contrast, Sohu.com’s graphic news concisely summarized the policy through a “one-picture” method, enabling users to browse quickly.

However, this study has limitations due to the lack of industry interviews. Future research should pay greater attention to feedback phenomena between user responses and the research and practice of public samples across all age groups.

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