

Synergizing Nanjing's Visual Advertising Governance: An Integrated Approach Fusing Historical Processes and Ergonomic Visual Characteristic Framework

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Abstract

As China's market economy system advances, the pace of urbanization is rapidly increasing. Urban governance, particularly concerning visual advertising, significantly influences residents' quality of life. It is a key aspect of social governance for the government to address illegal visual advertisements and prevent

the emergence of new ones through various legislative measures. Given the current inadequacies in visual advertising governance, it is crucial to establish a robust cooperative framework involving government agencies, as well as private and industrial organizations. Recently, Nanjing has made considerable progress in visual advertising governance by implementing a range of innovative measures under stringent administrative regulations. This study explores the historical evolution of visual advertising and proposes a strategy for integrating historical developments into the creation of a visual characteristic framework. The research utilizes the "multi-modal discourse analysis model" developed by Van Leeuwen for content analysis of various image-text groups. Key visual image frameworks considered include "subject content," "significance," "framing," and "modality," which are essential for constructing an effective visual characteristic framework.

Keywords: Nanjing City; Visual Advertising Governance; Development of a Visual Characteristic Framework; Visual Characteristic Framework

Introduction

As the capital of Jiangsu Province in China, Nanjing stands as one of the four ancient capitals and a leading city in the country's modern economic development. The evolution of the advertising industry in Nanjing mirrors the changing times and historical progress. In 2006, the state introduced the "Eleventh Five-Year Plan," which emphasized the vigorous development of the advertising industry between 2006 and 2010. Since then, Nanjing's advertising industry has achieved substantial advancements. Notably, in October 2003, the 10th China Advertising Festival was held in Nanjing, and in November of the same year, Nanjing Dahe Outdoor Media was listed on the Global Entrepreneurship Monitor (GEM) of Hong Kong (Yuan et al., 2016). For three consecutive years, from 2004 to 2006, Nanjing ranked first in the National Anti-Corruption Public Service Advertising Competition, organized by the Central Commission for Discipline Inspection. Additionally, in 2012, Jiangsu Satellite TV's "If You Are the One" generated 1.8 billion yuan in advertising revenue, marking the highest earnings among various entertainment programs (Zhang & Hur, 2022). In 2013, Nanjing reported a total of 8,242 advertising enterprises, employing 59,000 individuals, with advertising revenues surpassing 22 billion yuan, representing 45% of the provincial turnover (Noda et al., 2022). Despite this growth, the surge in visual advertisements has resulted in a decline in the quality of graphic advertisements. Additionally, the allocation and management of advertising space have encountered

new challenges.

Recent research on urban advertising management, both domestically and internationally, has been extensive. Iveson (2012) examines the management of outdoor advertising in Yiwu through the framework of multi-centre governance. By utilizing a range of research methods, including literature review, case studies, and interviews, the study evaluates the current state and challenges of urban outdoor advertising in Yiwu. He Hao applies multi-centre governance theory to uncover underlying issues and suggests relevant governance strategies. The paper also outlines the research background and significance of urban outdoor advertising management, reviews both domestic and international research, and discusses relevant theories and concepts, thus laying the groundwork for a multi-centre perspective on Yiwu's outdoor advertising management. Sun Tao emphasizes the need for "centralized remediation" to evolve beyond bureaucratic aggregation and closed operations. To achieve effective remediation, it is crucial to shift towards multi-stakeholder participation, enhancing departmental coordination and collective effort (Sun & Han, 2019). This research addresses current issues in urban advertising governance and suggests improvements for effective management.

Verleye et al., (2023) conducted a comprehensive analysis of greenwashing in advertising and associated governance challenges through a structured six-part framework. The first section reviews the current state of greenwashing in advertising. The second section defines greenwashing and related deviant behaviours, employing case studies and comparative methods for examination. The third section analyses greenwashing in China, exploring its historical motivations from marketing and advertising perspectives and examining real-life cases. The fourth section assesses the harms and management difficulties of greenwashing, focusing on these issues from a temporal perspective. The final section reviews experiences in social governance related to green advertising. Wang (2024) addresses the issue of inadequate spatial informatization in managing traditional illegal small advertisements by employing geospatial information, spatial data analysis, and visualization techniques. Wang developed a Geographic Information System (GIS) for illegal small advertisements, transitioning from a traditional list-based management system to a spatial information

management approach. This system enables multidimensional analysis of information, revealing the spatial distribution characteristics of illegal small advertisements and offering scientific, precise recommendations to improve governance in this area. The discussion includes the practical and theoretical implications of smart city governance, highlighting practical insights and suggesting future research directions.

Yang and Li (2023) explores ethical risks in intelligent advertising from a technology ethics perspective, identifying two primary types of risks. The first involves privacy infringements, information value violations, and intellectual property breaches resulting from extensive data mining of consumer information. The second pertains to operational barriers, class differentiation, and consumer alienation arising from deep learning algorithms. To manage these ethical risks in intelligent advertising technology, Yang proposes a governance framework that encompasses conceptual, empirical, and technical values. The framework includes four key stages: design, testing, application, and review, with strategies for ethical integration, evaluation, adjustment, and confirmation. These measures aim to mitigate and constrain ethical risks associated with intelligent advertising technology. Xu (2018) analysed the issues in managing health care product advertising, compared strategies from other regions, and developed a policy system for Shenyang. The study proposes innovations in management, legal improvements, and governance optimizations to support the healthy development of the health care product industry. The paper is structured into five sections, starting with an introduction that outlines the research background, significance, and a review of existing research on health care product advertising management. The second section outlines the relevant concepts and foundational theories in health care product advertising management, emphasizing the role of cooperative management theory. The third section conducts an empirical analysis of the current state of health care product advertisement management in Shenyang, identifying and analysing problems based on this understanding. The fourth section employs comparative analysis to introduce best practices from advanced regions both domestically and internationally, offering insights to enhance health care product advertisement management in Shenyang. The fifth section

proposes specific measures to improve management capabilities in Shenyang, including refining the cooperative management mechanism, establishing a stringent management system, and enhancing the overall management framework for health care product advertising. The research employs literature review, comparative analysis, and empirical methods to study Shenyang's health care product advertisement management (Xu, 2018).

In contrast, this paper examines the current state and historical development of visual advertising in Nanjing, analysing the visual features of the People's Daily Online COVID-19 photo reports. It proposes a strategy that integrates historical processes with visual feature development, focusing on timely and representative social events. This approach aims to expand the research field of visual frameworks and provides a reference for understanding visual advertising in Nanjing.

Research on the Development of Visual Advertising in Nanjing

Research Characteristics in the Development of Nanjing Visual Advertising

Rich Industrial Foundation

Firstly, leading enterprises have set a benchmark in the advertising industry. In Nanjing, 13 first-class national advertising enterprises generate a turnover of 3.713 billion yuan, representing 42.20% of the city's total advertising revenue, underscoring their significant impact. Secondly, emerging industries have bolstered advertising sector growth. Nanjing's initiative to develop a "smart Nanjing" led to a remarkable increase in software business revenue, rising from 400 billion yuan in 2015 to 1 trillion yuan in 2020. This shift from "made in Nanjing" to "created in Nanjing" and "Nanjing service" signifies an evolution that supports advertising industry development (Ghani, 2019). Thirdly, brand strategy has created new opportunities for advertising. As one of the initial "National Trademark Strategy Implementation Demonstration Cities" (Jiang & Wei, 2012), Nanjing had 68,000 effective registered trademarks by the end of 2013. This contrasts with 215 trademarks in Madrid, 72 well-known trademarks in China, and 394 well-known trademarks in Jiangsu Province (Vranová, 2012). Consequently, branding has provided a platform for advertising growth. Lastly, the

establishment of an advertising industrial park marks a new era for the industry. The Nanjing Advertising Industry Park has been designated as one of China's nine national pilot bases for advertising industrial parks. These parks actively develop public databases, information networks, and experimental platforms, enhancing resource integration capabilities. The concentrated development within these parks offers valuable opportunities and resources for the advancement of Nanjing's advertising industry.

Advantages of Abundant Resources

Firstly, Nanjing boasts a substantial human resource base, being one of China's four principal research and education hubs. The city is home to 61 higher learning institutions and 543 research organizations. Over 20 of these institutions, including Southeast University, Nanjing Normal University, and Nantong University, offer postgraduate programs in advertising, covering the full spectrum of advertising and creative communication. Secondly, Nanjing's geographical location presents a significant advantage. The State Council's "Yangtze River Delta Regional Planning" has elevated Nanjing's status from a "sub-central city" to "an important gateway for the development of the central and western regions, driven by the Yangtze River Delta's influence" (Yan, 2018). This positioning provides a strategic advantage for the advancement of Nanjing's advertising industry. Thirdly, Nanjing's rich cultural heritage contributes robustly to its advertising sector. As a renowned historical garden city, Nanjing is enriched with cultural relics from the Six Dynasties, the Ming and Qing Dynasties, the Republic of China, and modern revolutionary culture. This deep cultural legacy offers substantial cultural and spiritual support for the development of Nanjing's advertising industry (Tong et al., 2020).

Good Development Opportunities

Firstly, the ambitious development blueprint for the new century presents new opportunities for the advertising industry. The Nanjing Party Congress has advocated for the implementation of a revitalization plan for the cultural sector, with the development of the advertising industry being prominently featured in the Municipal

Party Congress report. This recognition represents a historic opportunity for the growth of Nanjing's advertising sector. Secondly, the establishment of an international convention and exhibition centre offers further opportunities for the advertising industry. Currently, Nanjing hosts approximately 25 international exhibitions and 300 international conferences annually. This increase in international tourism marketing has created favourable conditions for the expansion of the advertising industry. Thirdly, the convergence of creative elites and innovative projects provides fresh impetus for the advertising sector's development. The 2014 Summer Youth Olympic Games served as a pivotal event for Nanjing, significantly enhancing its international profile. The Games catalysed advancements in various areas, including cultural and creative R&D, urban planning, architectural design, environmental art, ecological design, artistic media, planning consultation, and fashion consumption (Tirosh & Klein-Avraham, 2019).

Deficiencies in the Development of Visual Advertising in Nanjing

Compared to the development level of advertising in developed countries, Nanjing's visual advertising industry still faces several challenges:

1. Improvements in the Core Competitiveness of Enterprises

Firstly, there is a scarcity of large advertising firms in Nanjing (Altrjman et al., 2022). Many visual advertising companies continue to operate on a small scale, exhibiting weaknesses in their overall status. Secondly, the level of specialization within smaller advertising companies is insufficient. These firms often lack the capability to offer comprehensive services, such as competitive graphic advertising, market research, strategic planning, creative visual advertising, production, distribution, media management, and effectiveness evaluation. They have yet to establish a professional division of labour or a collaborative operational model. Thirdly, the innovation capabilities of visual advertising enterprises need enhancement (Tang & Rosli, 2024). These companies predominantly focus on the promotion of simple products and the development of traditional marketing methods. They must evolve to meet the demands of the new media era, incorporating more advanced and innovative approaches. Fourthly, brand promotion efforts require

strengthening. Many visual advertising enterprises lack a clear strategic direction, with limited medium- and long-term development planning, and are primarily driven by short-term profit motives (Tang & Rosli, 2024). Despite Nanjing's reputation as a prominent provincial trademark in China, there is a notable absence of leading central visual advertising enterprises in the region.

2. The Advantages of Industrial Clusters

Firstly, the development of clustered regions requires greater balance. Currently, Nanjing's 8,242 visual advertising enterprises are distributed across 11 districts (Parrott et al., 2019). While some areas host a high concentration of similar enterprises, they are also spread across a broad geographical range. This dispersion hinders the formation of industrial links and contributes to the incomplete development of the visual advertising sector (Hossain et al., 2021). Secondly, the positioning of industrial parks needs to be more precise. Nanjing currently has over 50 cultural and creative industrial parks, either completed or under construction, with a total investment exceeding 10 billion yuan and over 2,000 enterprises established within these parks. However, issues such as inappropriate positioning and overly broad investment promotion efforts are prevalent.

3. Limited Medium - and High-End Talent Resources

Firstly, the personnel management training system requires a more scientific approach. Currently, college students receive traditional visual advertising education that does not always align with actual market demands (Choi, 2018). Moreover, enterprises face challenges in training and selecting visual advertising talent, with current methods being overly broad and lacking systematic training and evaluation procedures. Secondly, attracting high-end skills remains difficult. The "321" talent initiative in Nanjing, aimed at recruiting skilled professionals, has not significantly impacted the visual advertising industry due to factors such as limited career prospects and urban living pressures. Consequently, the average staff turnover rate in Nanjing's visual advertising sector stands at 16.72%, significantly higher than the general industry average of 5%-10% (Borchert, 2019).

4. Lack of Multidimensional Support System.

Firstly, the visual advertising industry suffers from an inadequate management

system. The presence of numerous departments overseeing and regulating the industry has led to administrative and management inefficiencies, resulting in suboptimal development progress. Secondly, there is a pressing need for improved legal management within the advertising sector (Gavran et al., 2023). The current system is deficient in managing intellectual property protection and service standards. Additionally, tax and electricity tariffs for the visual advertising industry are higher compared to other sectors, and fiscal policies related to finance and investment tax collection lack government support. Thirdly, the industry requires a more developed self-discipline system (Gavran et al., 2023). Many visual advertising industry associations are managed by administrative personnel who hold concurrent roles, leading to ineffective internal organization, staff management, and enforcement of reward and punishment systems. Consequently, the associations lack binding force among members and struggle to fulfil their intended roles effectively.

Strategic Thinking in the Development of Visual Advertising in Nanjing

In the context of globalization, four key considerations should guide the future development of Nanjing's visual advertising industry:

1. In considering the overall development on both national and global scales, it is crucial to address the advancement of Nanjing's visual advertising industry. Globally, the visual advertising industry plays a crucial role in enhancing a nation's international economic competitiveness. Domestically, China has surpassed Japan to become the world's second-largest visual advertising market, following the United States, with the graphic advertising sector making a significant contribution to the national gross product Gavran et al., 2023. Consequently, strategic planning for the visual advertising industry should incorporate a global perspective and focus on enhancing Nanjing's influence both domestically and internationally.
2. Concentrate on formulating a 20-year development plan for Nanjing to advance and establish the visual advertising industry.

Over the next 20 years, as the cultural industry emerges as a national strategic priority, Nanjing should capitalize on this opportunity. First, it is imperative to

integrate the visual advertising industry into the broader economic transformation and development plan of Nanjing. During this period of industrial transformation, urbanization, and internationalization, the visual advertising sector should be developed as a key industry to facilitate the modernization and upgrading of traditional sectors and support the growth of the modern service industry. By aligning with Nanjing's comprehensive cultural development strategy, the visual advertising industry can effectively convert cultural resources into tangible economic benefits. This approach will enable the seamless integration of historical heritage with contemporary creativity, blending humanistic values with industrial progress, and establishing the visual advertising industry as a vehicle for promoting Nanjing's history and culture. Additionally, the visual advertising industry should be incorporated into Nanjing's "innovation-driven strategy" to foster the development of emerging sectors such as cloud computing, mobile internet, and e-commerce. By doing so, the visual advertising industry can serve as a platform for showcasing and advancing innovative capabilities.

3. To plan the goals of the visual advertising industry in Nanjing, it is essential to align with legal frameworks and the needs for coordinated development. .

In the planning process, it is essential to consider both short-term impacts and long-term objectives, as well as regional advantages and environmental considerations. Strategic guidance should be provided to attract leading regional visual advertising and marketing communication firms into the Nanjing market. Additionally, efforts should be made to encourage prominent graphic advertising and marketing communication companies from outside the region to establish branches or form joint ventures with local partners in Nanjing. Furthermore, large regional media and enterprise groups should be incentivized to set up visual advertising operations or offices in Nanjing. Encouraging collaboration between multinational visual advertising firms and local companies will foster cross-border partnerships and enhance industry competitiveness.

4. Examine the influence of governmental legislation on resource allocation to enhance the development of Nanjing's visual advertising industry.

It is imperative to identify the underlying factors obstructing innovation and

growth within the visual advertising industry and to propose targeted, practical reform measures. Additionally, understanding the evolution of public services relevant to the visual advertising sector is crucial for making informed judgments and conducting rational analyses. This will enable the careful formulation of a strategic framework for Nanjing (Yuan & Gao, 2016). Implementing such measures can foster continual innovation, maximizing benefits and optimizing the efficiency of Nanjing's visual advertising industry. Concurrently, the growth of the advertising sector can stimulate economic advancement and bolster Nanjing's strategic positioning. To facilitate fair competition and enhance consumer choice, efforts should be made to develop independent management structures for visual advertising enterprises. This will promote a modern market system characterized by the unrestricted flow of advertising goods and elements, ensuring equitable exchanges. The objective is to eliminate market barriers, thereby improving resource allocation efficiency and fairness in the visual advertising sector. It is also essential to engage various social strata in supporting the visual advertising industry and to establish partnerships among public, private, and non-profit organizations. These collaborations will strengthen oversight of operational processes in visual advertising through legal mechanisms thereby enhancing the capacity of independent entities to manage the sector effectively (Zhao & Zhang, 2024).

The Development of Visual Advertising Governance

The development of visual advertising governance frequently encounters challenges due to discrepancies between economic growth and regulatory frameworks. This gap necessitates the integration of economic development and governance laws to advance visual advertising governance. By examining the development trajectories and governance strategies across different countries, one can gain insights into the objectives and evolving trends within the field of advertising governance.

Initial Developments of Visual Advertising Governance

The governance of visual advertising originated with the evolution of market

economies. In 1142 AD, France implemented the world's first advertising regulations by permitting wine merchants to advertise their products in the markets under King Louis VII. In 1712, England introduced a tax on advertisements in early publications such as newspapers. During these formative periods, the development of the commodity economy was relatively underdeveloped, and visual advertising governance was still nascent (Wallis & Nerlich, 2020). The primary objective of advertising regulation by the ruling class was to ensure market stability and facilitate tax collection.

Developmental Stages

Table 1: A Sign of the Development of Visual Advertising Governance in Various Countries

Time	Nation	Sign
1901	America	Pure Food and Drug Act
1907	China	Da Qing Lu Bao
1907	England	Advertising Law
1930	France	The early democratic decision-making mechanism
1972	France	

Globally, the study of visual governance and the formulation of advertising regulations began to take shape in the early 20th century. Table 1 illustrates the impact of visual advertising governance across various countries. Throughout the 20th century, industrialization in developed nations accelerated the market economy, leading to an increase in product display and promotion. This growth resulted in the emergence of diverse forms of outdoor advertising, necessitating the development of laws and a systematic approach to outdoor advertising governance, predominantly led by government entities (Zhang & Hur, 2022). During this period, China, influenced by international trends, also saw the gradual development of outdoor advertising (Noda et al., 2022). Government regulations in China were primarily focused on maintaining public order, promoting good customs, and ensuring stability (Appiah-Adu & Amoako, 2016).

Governance Stage

Table 2: Main Signs

Time	Sign
2009	Shanghai outdoor advertising facilities position planning
2018	Measures for the Administration of outdoor advertising and signboards in Guangzhou
2021	Decision of Changzhou Municipal People's Government on Strengthening the management of outdoor advertising facilities

In contemporary society, the rapid pace of global economic development has led to an unprecedented proliferation of commercial activities, accompanied by a significant increase in visual advertisements and continuous innovation in their formats and delivery methods (Ghani, 2019). As visual advertising has become integral to social governance, its regulation has evolved accordingly, as illustrated in Table 2. The expansion of colonial influence in various countries marked a period of advancement in visual advertising governance, characterized by ongoing enhancements in the enforcement of laws and regulations (Jiang & Wei, 2012). For instance, the revision of visual advertising regulations in Paris involved extensive consultations to integrate diverse perspectives, resulting in public demonstrations. During this era, improvements in visual advertising governance were achieved through legislative reforms, strategic planning, and regulatory frameworks, which aimed to delineate the roles and responsibilities of various entities and enhance supervisory mechanisms. The growth in the volume, diversity, and formats of advertisements underscored the need for continually updated and refined regulatory measures (Zhang & Hur, 2022).

Basic Visual Advertising Management in Nanjing

Currently, Nanjing employs a combination of rectification measures and routine management to oversee visual advertising. The primary objective is to regulate illegal advertisements that lack administrative approval, pose security risks, or negatively impact the city's aesthetics. Various forms of visual advertising are utilized, including window postings, façade ads, rooftop displays, floor advertisements, and electronic billboards. The governance of visual advertising in Nanjing involves multiple government departments, with the city management

department playing a central role. Other relevant departments include municipal administration, urban planning, and administrative approval agencies. From a governmental perspective, Nanjing primarily relies on administrative examination and approval processes to ensure the compliance of visual advertisements. The urban management department is responsible for daily supervision, enforcement actions, and the dismantling of unauthorized advertisements. Detailed information regarding the removal of illegal outdoor advertisements in Nanjing is provided in [Figure 1](#) and [Table 3](#). Administrative examination and approval departments collaborate with urban management, municipal administration, and planning departments to review visual advertisement applications. Applicants must secure approval from the administrative examination and approval department before installing any advertisements; otherwise, the advertisement is deemed illegal. During routine management, compliance with regulations is enforced, and administrative permission must be obtained. Advertisers with minor infractions are required to rectify the issues and apply for the necessary administrative licenses. In cases of significant violations that are not amendable, penalties and forced removal are implemented. Additionally, unified planning transformations are utilized as part of Nanjing's visual advertising governance strategy.



Figure 1: Advertising Processing (Image Source: Baidu Images)

Table 3: Nanjing Urban Demolition Illegal Outdoor Advertising List

Type	2019	2020	2021	2022	Aggregate
Shop Bidding License Class	1352	3120	2012	1260	7744
Outdoor Advertising on Rooftops	3526	5104	38702	22320	69652
Floor-to-Ceiling Outdoor Advertising	633	672	1301	886	3492
LED Electronic Display	450	856	320	225	1851
Aggregate	5961	9752	42335	24691	82739

The Visual Characteristic Framework of the Photo Report on the COVID-19 Epidemic in People's Daily

The term "framework" refers to a set of cognitive structures designed to facilitate the understanding of specific concepts. In this context, the visual framework encompasses established theoretical concepts from visual grammar theory, visual rhetoric theory, and visual thinking theory, addressing issues related to the representation of laws, the design of meanings, and the schema of meaning within image cognition (Post, 2019). The academic origins of the visual framework can be traced to Erving Goffman's 1979 work, *Gender Advertising*, which explores how visual advertising represents gender issues (Tirosh & Klein-Avraham, 2019). This seminal book paved the way for subsequent research on visual frameworks in advertising discourse, leading to several influential studies in the field (Parrott et al., 2019). The visual framework, however, has evolved beyond its initial focus on gender representation. Scholars in communication have recognized that the framework comprises both textual and visual elements. It was not until 1922, with Walter Lippmann's introduction of the concept of "pictures in the brain," that the visual framework garnered significant academic interest (Borchert, 2019). Consequently, the visual framework is understood as a cognitive mode constructed through visualized concepts, methods, and approaches. It is reflected in the development of a coherent visual meaning structure, achieved through constructing the visual representation dimension and acquiring the visual interpretation dimension. This framework helps to anchor, define, classify, and interpret the attributes, connotations, and potential discursive forms of visual advertising (Zsidó, 2024).

Content Analysis of the "New Coronavirus Epidemic" Photo Report in the People's Daily Online

1. Selection of Research Samples and Method

As a significant public health event in contemporary China and global health history, the novel coronavirus outbreak necessitates an examination of visual representations within media coverage. The People's Daily, one of the largest multilingual online news platforms in China, centres on "news" as its primary objective (Rodriguez & Dimitrova, 2011). As a prominent and authoritative news source in China, the People's Daily is noted for its inherent authority, reliability, and diversity in reporting. This study therefore focuses on the multimodal texts—particularly the visual elements—featured in the People's Daily's coverage of the novel coronavirus pandemic, analysing the imagery utilized on their website to understand its role in conveying information about the outbreak.

In this study, a total of 9,983 reports related to the "COVID-19 epidemic" were retrieved from the People's Daily Online platform. Key event nodes, including major outbreaks such as the COVID-19 pandemic, the Tonghua epidemic in Jilin Province, the Beijing outbreak, and the Xi'an epidemic, were tracked on the day of the events and for the subsequent two days. From these, 100 representative time node samples were selected, with the remainder chosen as probability samples, resulting in 300 standard models. In total, 400 valid samples were analysed through content analysis of images, employing a structured coding framework to categorize and interpret the visual data.

2. Construction and Presentation of Content

In terms of content construction, this study is grounded in Van Leeuwen's "multi-modal discourse analysis model," which facilitates the examination of visual image frameworks through four key elements: "subject content," "significance," "framing," and "modality" (Griffin, 2004). Within this framework, "significance" pertains to the meaning conveyed by the positioning of various components within an image, with central and foreground elements considered primary, and peripheral elements secondary. "Subject content" involves strategically placing different elements to capture viewer attention, varying in size and brightness. "Framing" refers to the method of delineating parts of the image through visual boundaries, either through actual lines or implied separations. "Modality" elements address the depiction of

reality through various image representation techniques, such as colour, detail, depth, and lighting. This model incorporates factors such as the subject, social distance, visual mode, and the subject's behaviour, focusing on how each element (e.g., colour, shape, space, location, and scene) contributes to the construction of meaning. To analyse the epidemic reports, a graphic framework category was developed. This involved reviewing literature, referencing existing studies, and examining specific samples to classify the models statistically. Ten samples were randomly selected for preliminary coding. After several iterations of refinement, the final category framework was established. The variables of all 400 images were coded accordingly, as detailed in [Table 4](#).

Table 4: Content Analysis Coding

Serial Number	Category	Index	Coding Specification
1	Value of Information	Figure	1= Officials/Politicians; 2= Medical Staff; 3= The Masses (Ordinary/Vulnerable); 4= Large Scenes such as Activities; 5= Media People
2	Significance	Other Images	6= Manga; 7= News Notice (Information Bulletin); 8= Item; 9= Slogan
3	Find a View (Social)	Character Position	1= Image Centre; 2= Group Image; 3= To Highlight One Side; 4= Lack of Core Focus, Focus on Spectacle; 5= Other
4	Distance)	Shooting Location	1= Hospital; 2= Press Conference; 3= Memorial Assembly; 4= Laboratory; 5= Warehouse; 6= Ambulance; 7= Outdoor; 8= Inoculation Site
5	Mood (Visual)	Field of Shooting Scale	1= Medium Range; 2= Long Shot; 3= Close Shot; 4= Panorama; 5= Close-Up; 6= Other
6	Mode)	Detail Image	1= Haggard and Tired; 2= Emaciation; 3= Pale; 4= Bald; 5= Shrivelled; 6= Listless; 7= Perseverance; 8= Vitality; 9= Other
7		Countenance	1= Keep Your Mouth Open; 2= Tight Lips; 3= Frown; 4= Sunken Eye Sockets; 5= Wear a Mask; 6= Other
8		Body Posture	1= Sit; 2= Lie Down; 3= Cringe; 4= Hug; 5= Talk; 6= Standing; 7= Work;
		Hue	1= Warm Colour; 2= Dark Cool; 3= Mid Tone

Visual Frameworks in COVID-19 Reports

The coding results were employed to analyse the 400 images, with a focus on interactive analysis to explore the frequencies and proportions of the epidemic reports. According to the statistical data presented in [Table 5](#), between February 11, 2020, and February 11, 2022, the most frequently reported images were ranked highest. These images predominantly featured people positioned centrally within medical contexts, emphasizing their significance, and frequently depicted individuals

wearing masks. Overall, the depiction of people was primarily centred in the images (Post, 2019). During the pandemic, there was a heightened focus on public health, which was also reflected in news coverage emphasizing public health concerns. The statistical analysis aligns with this trend, highlighting a focus on "people" and "human issues" within medical contexts during the epidemic. The frequent depiction of "mask-wearing" in the images served as a significant suggestion and encouragement, aiming to mobilize the public to collectively "combat the epidemic."

Table 5: Overall Sample Analysis

	Figure	Set-Jetting	Image	Countenance	Hue
Valid	400	400	400	400	400
Deficiency	0	0	0	0	0
Mode	13	13	9	5	3

Deconstruction of the Visual Frameworks of Photos Report

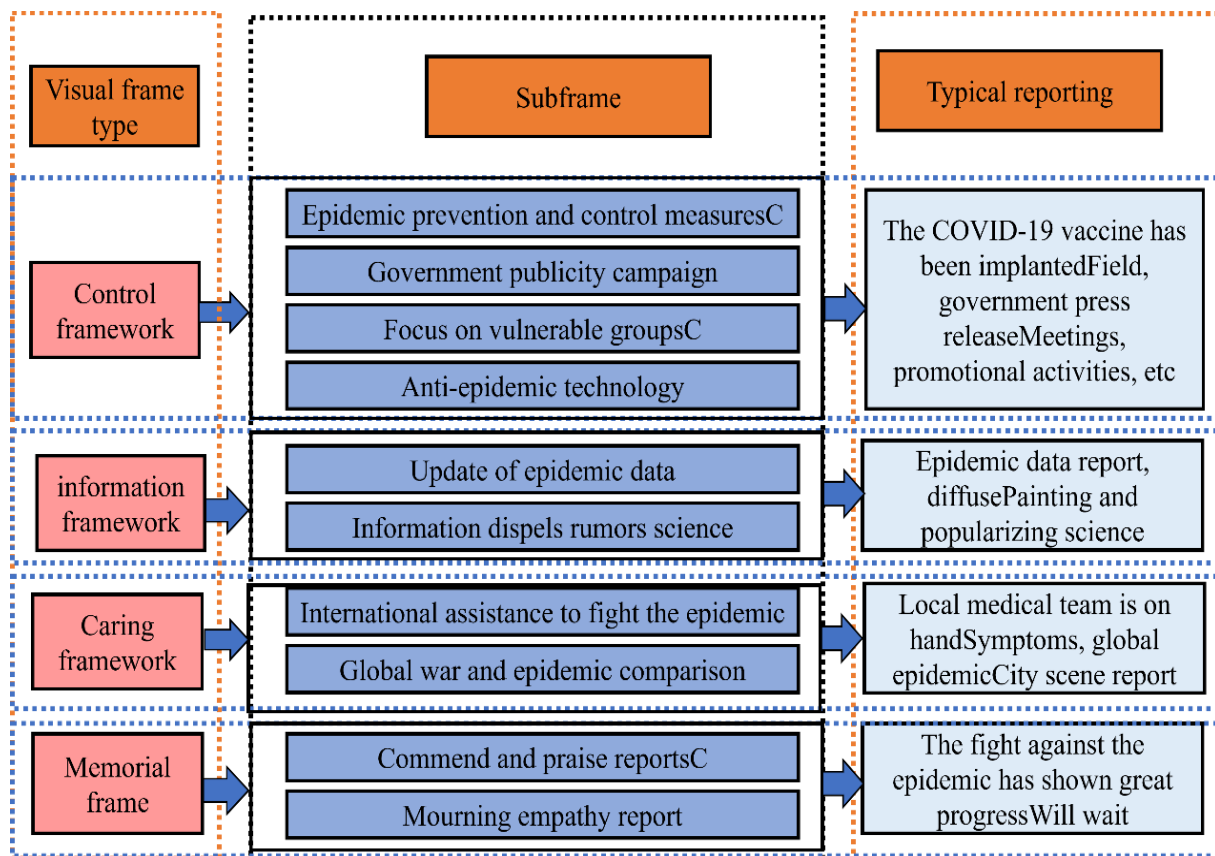


Figure 2: Visual Framework Analysis Diagram

This study analysed a sample of 400 news pictures and advertisements, categorizing them based on their subjects and scenes. Four principal visual

frameworks were identified, as illustrated in [Figure 2](#). From the perspective of framework proportions, the prevention, control, and information frameworks comprised nearly 80% of the total. The predominant frameworks in the epidemic coverage reported by the People's Daily Online were emotional, intimate care, and memorial frameworks. The People's Daily Online utilized these four frameworks as foundational pillars to continuously update epidemic information and provide a comprehensive portrayal of the epidemic situation. The focus on prevention was central to this coverage.

1. Prevention and Treatment Framework: Focus on Healing and Prevention

The prevention and control framework encompasses three primary aspects, as illustrated in [Figure 3](#). The first aspect pertains to the depiction of prevention, control, and treatment methods, predominantly set against a hospital backdrop. This framework features medical personnel and scientific experts as the main subjects, with colours predominantly in white and blue. Scenes typically include vaccination and nucleic acid testing, emphasizing treatment and rescue efforts against the novel coronavirus epidemic. The details highlight the diligence and exhaustion of professional medical staff in their efforts to protect public health. The second aspect focuses on activities that aim to promote public awareness. This type of framework is often associated with press conferences, where characters are depicted as resolute and serious ([Wallis & Nerlich, 2020](#)). The press conferences showcase government policies, information, and social order management, featuring government officials, experts, scholars, and medical personnel, who are generally positioned centrally in the images. These conferences are designed to report on significant government policies in response to public health emergencies, outline the overall deployment of epidemic prevention measures, and present a positive image of government leadership during the epidemic period ([Griffin, 2004](#); [Rodriguez & Dimitrova, 2011](#)). The third aspect addresses the concern for vulnerable groups, focusing particularly on children and the elderly, who are more susceptible to the impacts of the epidemic. These groups are frequently depicted in the centre of the images, with close-up views that emphasize care and protection. This aspect conveys messages of "sincere care for vulnerable groups" and "heart-warming measures to prevent and control the

epidemic."

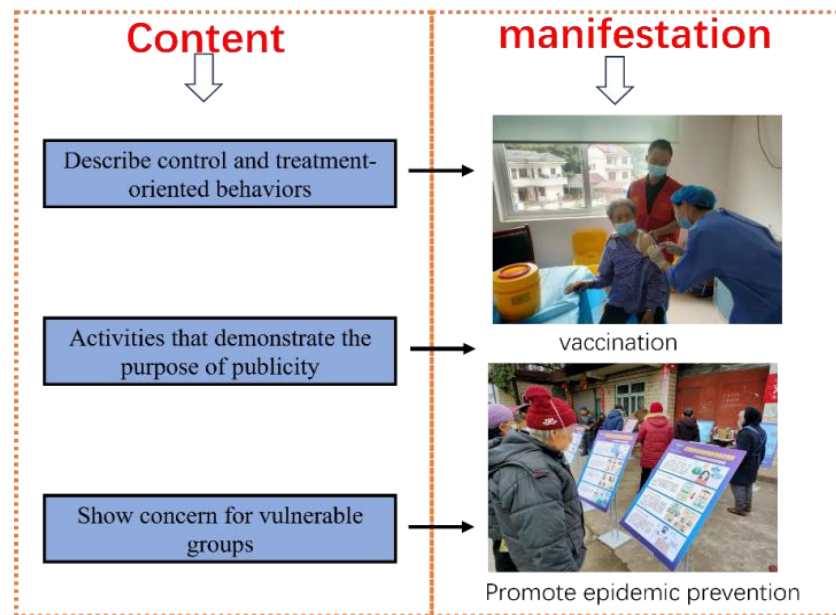


Figure 3: Control Framework (Image Source: Baidu Images)

2. Information Framework: This framework illustrates the chain of transmission of the epidemic and emphasizes the need for public cooperation.

As depicted in [Figure 4](#), this framework emphasizes the rapid, comprehensive, and transparent disclosure of information regarding the epidemic. Reports under this framework focus on clearly presenting the disease's transmission chain and providing thorough updates on the epidemic through daily data reports and progress notifications. Additionally, it includes information on vaccine suitability, safety, tracking, and administrative measures such as the temporary suspension of classes and businesses. The framework aims to enhance public understanding and cooperation through detailed explanations of prevention and control policies ([Griffin, 2004](#)). Secondly, this framework prioritizes the dissemination of accurate scientific information and the refutation of rumours, particularly during the early and middle stages of the epidemic. It emphasizes compiling factual evidence to clarify the truth and focuses on educating the public through informational campaigns about disease prevention and transmission. This includes guidance on antigen detection methods, proper mask usage, and prevention tips, with particular attention to rural areas and nucleic acid sampling and testing methods ([Du Xing-yuan, 2022](#)). Overall, the information framework aims to gauge public opinion, address concerns, and spread knowledge about disease prevention and control. It underscores the significance of

individual responsibility in preventing virus transmission and protecting both oneself and others, thereby fostering social consensus and encouraging collective action against the epidemic (Van Leeuwen & Jewitt, 2004).

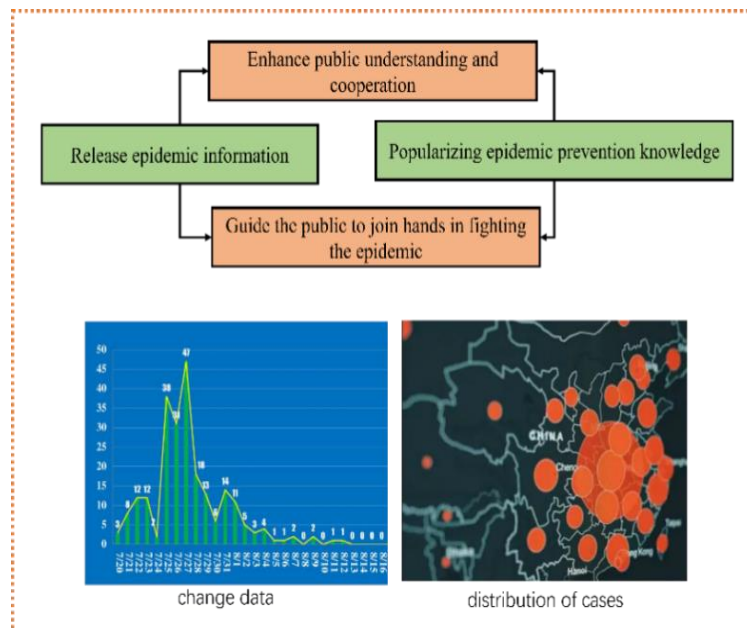


Figure 4: Information Framework Analysis

3. Caring Framework: Image Showing Dissemination of Aid

This framework emphasizes the expression of humanistic care by portraying the disruption and emotional distress caused by the epidemic. It highlights scenes of outdoor activities, airports, and vaccination sites, often depicted in panoramic views to showcase the broader context. The framework underscores China's role as a key player in the global response to the epidemic, including the international aid provided by the Jiangsu medical team to countries such as Africa and Pakistan, and vaccine support extended to Egypt, to combat the novel coronavirus outbreak (Zhao & Zhan, 2019). Secondly, the framework focused on depicting the living conditions during the epidemic, highlighting the challenging experiences faced by individuals. These reports, often presented from a comparative perspective, showcased empty cities and desolate scenes as measures to curb the spread of the novel coronavirus. They provided a direct portrayal of the political, cultural, and economic impacts of the epidemic, capturing the "static" moments in the global struggle against the virus (Griffin, 2004).

4. Memorial Framework: A Healing Tool to Ease Trauma

Most of these frameworks comprised images depicting public scenes,

commemorative activities, and public gatherings. As illustrated in Figure 5, these predominantly featured group images, including conferences held to address the epidemic, special exhibitions focused on combating the novel coronavirus, and notable positive stories, prayers, and mourning scenes uncovered by journalists. Memorial images served both as therapeutic and journalistic tools, designed to mitigate the suffering caused by public health crises, evoke empathy, and foster public solidarity. Secondly, these images conveyed the gradual restoration of social order and the rebuilding of the health system, offering hope through memorial services. In the context of a severe and distressing epidemic, news platforms have a responsibility to provide comfort and demonstrate social responsibility. By reporting on "warm news," they highlighted the inherent goodness in humanity during challenging times. Concurrently, such uplifting news fostered and reinforced solidarity among the public in their collective efforts to combat the epidemic.



Figure 5: Memorial Framework (Image Source: Baidu Images)

Visual Framework Construction: The Development Mechanism of a Visual Framework for COVID-19 Reporting

To enhance the visual framework, this article will further examine the construction mechanism underlying the visual framework. This study has analysed how the People's Daily Online strategically plans its news advertisements, resulting

in the development of four comprehensive frameworks for depicting the epidemic. These frameworks are informed by external factors such as the news industry's practices, journalists' experiences, and the internal application of visual language. The discussion has addressed the characteristics of the visual ergonomic framework, providing insights into its composition and functionality.

1. External Mechanism Industrial Standards and Personal Experience

In character reporting, the depiction in images is inherently subjective. While the content of news pictures is objective, the presentation of images is influenced by personal interpretation. This subjectivity transforms pictures into a narrative medium, effectively creating a distinct visual framework. When capturing images for epidemic reporting, journalists often take numerous photographs based on personal preconceptions. During the epidemic, in addition to their habitual shooting styles, journalists approach their work with increased care and empathy, aiming to capture images that convey warmth and relevance to the news. News photo editors should prioritize authenticity to enhance readability and carefully select images that align with the news narrative. This process involves ensuring that the chosen photos accurately reflect the commonalities and nuances in the portrayal of individuals, both in shooting and editing.

2. Internal Mechanism: Reasonable Overall Planning based on Meanings of Images

Van Leeuwen and Kreis (2004) categorize image meanings into two primary types: narrative and conceptual representations. In narrative representations, the interaction or depiction of participants is achieved through visual cues such as sight and direction, illustrating the development and progression of events within the images. Conversely, conceptual representations are stable and focus on reflecting the symbolic meaning of participants without incorporating vector carriers. Narrative images may include one or more vectors, while conceptual images typically do not. The production of these meanings is detailed in [Table 6](#).

Table 6: The Meaning of Image Reproduction

Representation Meaning	Control Framework	Information Framework	Caring Framework	Memorial Frame
Narrative Reproduction	128	46	40	26
Concept Representation	22	116	11	11

Interactive meanings in images can be categorized into contact, social distance, and attitude. "Contact" pertains to the interaction between the eyes of the participants in the image and the viewers. This interaction is classified into "asking" and "offering" categories, depending on whether the participants' gaze is directed towards or away from the viewer. "Social distance" refers to the spatial relationship between the viewer and the participants in the image, as indicated by the picture's scope; a broader angle implies a greater distance. "Attitude" is conveyed through the photographic perspective, reflecting the viewer's subjective interpretation of the participants. For instance, a top-down view may suggest a subordinate position of the participants, whereas a bottom-up perspective might emphasize their significance. These perspectives are illustrated in [Figure 6](#).

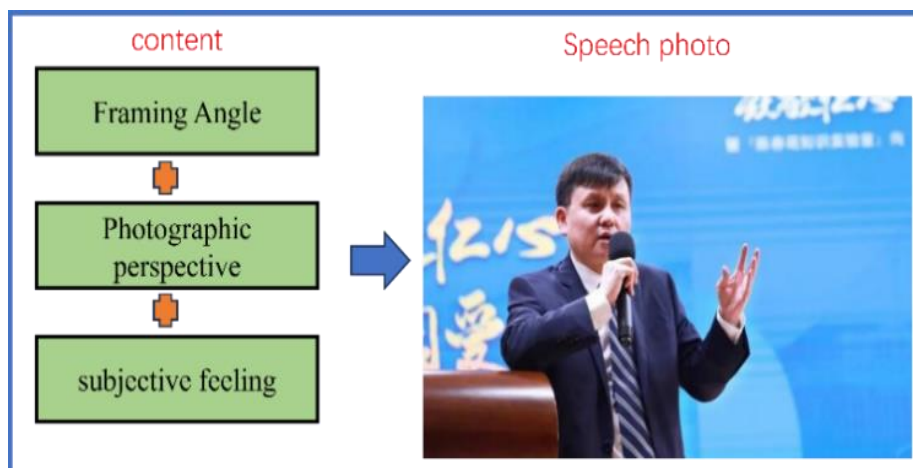


Figure 6: Zhang Wenhong's speech in Pudong (Image source: Baidu Images)

Composition meaning in images is governed by two fundamental principles: information value and salience. Information value refers to the hierarchical distribution of information within an image, with different areas such as the top, bottom, left, right, middle, and edges carrying varying levels of significance. Typically, the central area conveys more "important" information, while peripheral areas present "minor" details. Salience pertains to the visual prominence of different

elements within an image, influenced by factors such as foreground-background contrast, relative size, and colour vividness. This principle highlights how variations in visual power affect the observer's perception of different components within the image. In summary, the visual framework of COVID-19 epidemic reports was shaped by both industry practices and journalists' personal habits and experiences. This framework incorporates three key elements: internal representation, interactive meaning, and composition. Together, these elements created four major frameworks that enabled comprehensive and timely visual reporting of the epidemic.

The Role and Impact of Developing a Visual Identity Framework in Governance of Urban Advertising in Nanjing

Role of Developing a Visual Identity Framework

Using the diverse imagery from People's Daily's reporting on the epidemic as a case study, this paper introduces a framework for picture dissemination, classification, and control. It examines the multimodal texts represented by speech graphs, focusing on the analysis, categorization, and processing of imagery to derive visual frames for various types of pictures. In the context of Nanjing's advertisement governance, the framework identifies and categorizes different types of advertisements throughout the city. The input system framework classifies the content within each advertisement type, establishes a visual framework, and identifies and categorizes advertisements that either detract from the city's aesthetic or propagate negative sentiment.

Implications for the Governance of Visual Advertising in the City of Nanjing City

The visual framework proposed in this study serves a dual purpose. First, it facilitates the categorization of various types of advertisements within Nanjing city and the identification of negative advertisements. Second, it guides the strategic placement and arrangement of visual advertisements throughout the city. By transmitting relevant political and commercial information, this framework aims to enhance public cooperation and improve the population's comprehension of political content and diverse commodities. This approach is expected to significantly boost

public engagement and understanding.

For Future Development

The visual framework proposed in this paper effectively addresses various types of visual advertisement information within the city but faces several limitations:

1. The recognition framework presented is primarily a picture recognition system with limited research on the comprehensive collection of images representing diverse visual advertisements within the city. Future development should focus on creating an advanced visual advertisement recognition system utilizing computer technology and artificial intelligence.
2. The proposed visual framework lacks specific classification criteria for different types of visual advertisements, and the criteria for identifying negative advertisements require further investigation.
3. While the paper introduces a visual framework, there is inadequate research on the detailed implementation process for using the framework to differentiate visual advertisements. Additional research is needed to address this gap.

Conclusion

This paper investigates the current state of visual advertising in Nanjing, analyses its historical development, and proposes a strategy that integrates a historical perspective with the evolution of visual frames. Specifically, the study utilizes images from the People's Daily On line's coverage of epidemic prevention and control as a case study to explore how visual frames have addressed media practices and health communication. The analysis reveals that People's Daily Online employed four distinct visual frames—prevention and control, information dissemination, caregiving, and commemoration—in its COVID-19 reporting. The paper also examines the underlying mechanisms of these visual frames, offering a novel strategy for the governance of visual advertising in Nanjing and suggesting concrete measures for its implementation. Additionally, the study evaluates the impact of applying these visual frameworks to the governance of visual advertising in Nanjing, identifies current issues, and outlines future research directions.

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