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# Embracing fast-food culture: *Lianhuanhua* as a paradigm of visual narrative news

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*Lianhuanhua*, a subgenre of visual narrative news (VNN), has recently gained popularity on Chinese media platforms for its distinctive visual storytelling format. This study, grounded in theories of visual modality and language style, analyzes 101 *lianhuanhua* articles collected from Chinese media platforms. The analysis shows that *lianhuanhua* employs abstract images to merge symbolic meaning with amusement, technological images to visualize complex information while adding playful elements, and naturalistic images to enhance the authenticity of news. Verbal text complements these visuals through strategies like explanatory discourse, question-and-answer formats, conversational and fashionable language, and visually-driven commentaries. These stylistic choices cater to the fast-paced, visually oriented nature of modern media consumption, effectively reshaping hard news narratives into compelling visual stories that prioritize brevity and sensory engagement for audiences. These findings not only highlight the pervasive influence of fast-food culture on news consumption and production but also demonstrate the transformative power of visual storytelling in shaping contemporary digital media discourse.

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## Introduction

In recent years, a new form of discourse known as visual narrative news (VNN) has become increasingly popular on social media platforms and news websites. This type of news relies on visual storytelling to convey information, primarily using elements such as photographs, illustrations, infographics, videos, maps, and comics, accompanied by minimalist text like captions or supplementary notes (Cagle, 2013; Cagle and Knox, 2015; Chun, 2023; El Refaie, 2009; Roth, 2021). VNN functions to transform boring, difficult, and complex content into engaging, visualized, and accessible messages. A notable example of VNN is a news format called “连环话” (“*lianhuanhua*” in Pinyin), which first appeared on ifeng.com in 2012 and quickly gained popularity across Chinese social media platforms and news websites. Similar to the format of picture books or comic strips, *lianhuanhua* reports and comments on complex social issues in a visualized, simplified, and engaging manner (D Feng, 2024). Its content often focuses on urgent political, economic, and/or social public affairs, aligning with what Reinemann et al. (2012: 232–233) define as “hard news.”<sup>1</sup> The emergence of *lianhuanhua* reflects a broader shift in China’s media landscape, where fast-paced, visually-oriented consumption habits are reshaping how news is produced and consumed (Anderson and He, 1999; Ma, 2016; Pu, 2021). This trend embodies a “fast-food culture” in media production and consumption, where bite-sized, visually engaging, and easily digestible content is designed to capture viewers’ attention amid information overload. Such practices resonate with Postman’s (1987) seminal critique of media’s role in “amusing ourselves to death,” where substantive public discourse is increasingly mediated through spectacle and entertainment rather than rigorous deliberation.

While there is a growing interest in different types of VNN (e.g., Chun, 2023; Roth, 2021), research on *lianhuanhua*, a distinct VNN subgenre in Chinese media, remains limited. The present study aims to address this issue by examining how *lianhuanhua* transforms the content of hard news (e.g., political, economic, or social issues) into visually engaging and entertainment-driven narratives. Questions to be addressed include:

- (I) What are the distinctive stylistic features that characterize *lianhuanhua* as a form of visual narrative news?
- (II) How are these features represented and (re)constructed through multimodal resources in *lianhuanhua*?
- (III) In what ways do these features and their representation/reconstruction relate to the trend of fast-food culture?

This article begins by introducing the concepts of visual narrative news and *lianhuanhua* in the first section, followed by a literature review of studies on visual narrative news and the trend of fast-food culture in the Chinese media landscape in Section 2. Section 3 describes the analytical framework of this study and Section 4 outlines the data collection and analysis process. In Section 5, the core of the study, the discourse of *lianhuanhua* is analyzed through the lenses of visual modality and language style. The final section discusses the findings and their implications for future research.

## Literature review

**Visual narrative news.** Visual narrative news (VNN) represents a multimodal storytelling framework that synthesizes visual, textual, and interactive elements to optimize information delivery and audience engagement. While known by various names, VNN usually comprises visual storytelling, infographics, comics, and interactive elements. Among these components, visual storytelling serves as the core of VNN. Visual storytelling has been a

part of human expression since ancient times, as seen in art forms like cave paintings (Clottes, 2016) and Egyptian hieroglyphs (Gardiner, 1957). Historians and archaeologists regard these examples as precursors to modern visual storytelling. de Saussure’s (1974) distinction between signifier and signified has laid the groundwork for understanding how visual elements function as signs in communication, while Barthes (1977) expands this by theorizing image-text relations through concepts used for analyzing visual narratives such as anchorage, illustration, and relay. Halliday’s (1978) systemic-functional linguistics further enriches this framework by foregrounding language’s tripartite functional dimensions: ideational, interpersonal, and textual. Kress and Van Leeuwen’s seminal work, *Reading Images* (2020[1996]), adapts these principles to visual semiotics, proposing three parallel metafunctions: representational, interactive, and compositional. The representational function concerns how images depict events, entities, participants, and settings. The interactive function explores how visuals engage viewers through gaze, perspective, and modality. The compositional function analyzes how layout and spatial arrangement convey power relations and visual coherence. Painter et al. (2013) extend this framework to visual narratives in children’s picture books, developing a series of analytical frameworks regarding meaning-making processes like pathos, ambiance, focalization, and framing. These studies provide a strong theoretical foundation for Multimodal Discourse Analysis (MDA), an interdisciplinary framework for exploring how meaning emerges through the interplay of multiple modes such as language, images, sound, and typography (Jewitt, 2009; O’Halloran, 2004). MDA has been widely used to analyze visual storytelling modes such as news videos (Bateman and Tseng, 2023), infographics (D Feng, 2024; Oja, 2023), and news galleries (Cagle, 2013; Cagle and Knox, 2015), among others.

Secondly, VNN frequently utilizes infographics to convey data-driven information. Defined as pictures that “[blend] data and design” (Smiciklas, 2012: 3), infographics serve as a crucial tool for transforming abstract or numerical content into easily digestible narratives. Their evolution spans millennia, from ancient practices like China’s 11th-century gridded maps (Tufte, 2001) to modern tools that simplify complex information across fields such as news reporting (Cairo, 2019; Chun, 2023; Veccock, 2021), business communication (Lankow et al., 2012), and education (Kuba and Jeong, 2023; Smiciklas, 2012). Lankow et al. (2012: 21) categorize infographics into four functional types, including “editorial” (designed for opinions), “qualitative” (visualizing non-numerical visuals), “quantitative” (representing statistical data), and “narrative” ones (structuring visuals to convey stories). These categories align with infographics’ dual role in documenting data and enhancing communication. For instance, Roth’s (2021) analysis of cartographic discourse demonstrates that infographics are capable of representing abstract experiences, embedding ideological values, and clarifying complex information. Central to infographics’ effectiveness is Schmid’s (1983) principle of minimizing cognitive friction, which underscores their design logic in reducing audience effort to parse information. By merging aesthetic appeal with informational clarity, infographics have become an important resource for digital discourse to transform complex or abstract content into digestible narratives (Krum, 2014). However, they are not neutral conduits of information. Design choices, such as color symbols and spatial hierarchy, often encode ideological perspectives (Krum, 2014). Cairo (2019), for example, argues that infographics, particularly in Western media, may amplify political polarization by visually reinforcing partisan divides.

In addition, VNN tends to incorporate panel-based storytelling techniques into its narration, a structural convention rooted in

comics. Eisner (1985) and McCloud (1993) have laid the foundation of comics with concepts such as panel transitions (movement between panels) and closure (audience inference of gaps). Building on their studies, Groensteen (2007) systematizes comics through frameworks like iconic solidarity (interconnected images), restrictive arthrology (linear panel transitions), general arthrology (non-sequential connections), and spatio-topical systems (page layout). Gavalier (2022) extends this theoretical foundation by proposing a tripartite narrative framework comprising: the image-narrator (governing visual semiotics, e.g., visual layouts), the text-narrator (mediating linguistic discourse, e.g., dialogues/captions), and the image-text narrator (negotiating multimodal interplay, e.g., image-text relations), each distinct yet working together in storytelling.

In VNN, comics serve two primary roles. First, they act as powerful mediums for socio-political critique, exemplified by the pervasive use of political cartoons in the news media. These works employ satire and symbolism to spotlight social issues and shape public opinion, as demonstrated by studies from El Refaie (2009), Ho et al. (2021), and Semotiuk (2023). Second, comics excel at distilling complexity into visually engaging formats. Research, such as Kearns and Kearns' (2020) analysis of COVID-19 health communication, shows that comics simplify complex information through visual storytelling, effectively translating scientific content into accessible stories.

Another notable feature of VNN is its integration of interactive elements that empower users to engage in self-directed exploration of news narratives. Scrollable timelines (Lankow et al., 2012; Roth, 2021) and clickable maps (Roth, 2021), for instance, allow users to navigate spatiotemporal relationships in news events, while news galleries (Cagle, 2013; Cagle and Knox, 2015) enable audiences to shift between details and overall description of news. Embedded videos (Bateman and Tseng, 2023) further enrich this experience by enabling users to switch between textual reporting and audiovisual evidence. Platforms like Facebook amplify this interactivity by integrating user-generated short videos into news production (Liu and Zhang, 2024; Xiang, 2019), reflecting a shift where audiences evolve from passive consumers to active co-producers of news.

Despite these advancements, research on culturally specific VNN subgenres remains uneven. As one such subgenre in China's media landscape, *lianhuanhua* has received little scholarly attention. This study addresses this gap by examining the discourse style of *lianhuanhua*, focusing on how it blends visually engaging and entertainment-driven elements with hard news to attract and retain audiences.

**Fast-food culture and media perspectives in China.** The fast-food industry emerged in the post-World War II era, with chains like McDonald's pioneering standardized service, speed, and affordability. By the late 20th century, globalization and franchising fueled its expansion, embedding fast-food principles into daily life (Ritzer, 1983). Ritzer (1983) conceptualizes this evolution as "McDonaldization," suggesting that speed, predictability, convenience, and control—once exclusive to fast food—have permeated all walks of life. This phenomenon appeals to consumers by providing quick and convenient options that prioritize ease over complexity and quality (Frye and Bruner, 2012). For example, advertisements often feature visually appealing images of food that are designed to evoke immediate sensory responses, as they are easy to be noticed and understood (Best, 2014; Ellison et al., 2023). Additionally, fast-food chains frequently introduce new products to maintain a sense of freshness, keeping consumers engaged through continuous surprises (Best, 2014).

In China, the fast-food sector, epitomized by global franchises such as McDonald's and KFC, has increased "on a grand scale" due to "the accelerating pace of urbanization and the rapid development of China's economy" (Smith, 2012: 119–120). The spread of McDonald's is a clear marker of this trend as it reshapes urban lifestyles and youth identities by serving both as a dietary choice and a cultural phenomenon (Yan, 2006[1997]). Meanwhile, these global brands also adapt their offerings to suit local tastes, such as introducing rice dishes, thence blending global influences with local identity (Anderson and He, 1999). This strategy aligns with China's rapid urbanization and the rise of a burgeoning middle class, making fast food a normalized part of modern life (Ma, 2016; Pu, 2021; Yan, 2006[1997]). More importantly, this phenomenon has spread across various societal domains, evolving into a homogenized cultural landscape in modern Chinese society known as "fast-food culture."

The influence of fast-food culture is particularly pronounced in the media sector. Cooper (2011) argues that contemporary society is transitioning into an era of information overload marked by a relentless influx of information from multiple media sources. In response, media organizations are compelled to rethink their approach to news production and dissemination. They increasingly transform intricate or abstract material into simplified, engaging, and accessible narratives (Denisova, 2023). This trend is especially evident in China's media landscape, where outlets are actively adapting to audiences' demand for rapid, digestible information. They adopt concise and multimodal formats, such as infographics, short videos, and minimalist text, to distill political, economic, and social issues into digestible stories (Liu and Zhang, 2024; Yu et al., 2023). For instance, *China Daily* uses animations and infographics to simplify hard news (Veacock, 2021), while mainstream media rely on algorithm-driven social media platforms like Weibo, WeChat, Douyin/TikTok to amplify reach through visually augmented posts (Shi and Li, 2025; Xu, 2022). Moreover, news organizations increasingly integrate user-generated content (UGC), such as citizen reports and short videos, into traditional reporting, thus bringing forth a spectacle of "netizen journalism," which reshapes the production and dissemination of news (Liu and Zhang, 2024; Xiang, 2019). These trends culminate in emerging news formats like *lianhuanhua*, which blends visual storytelling, minimalist text, and entertainment elements together to reframe the content of hard news, as demonstrated in the analysis below.

### The analytical framework

This study draws on the theories of visual modality and language style. According to Kress and Van Leeuwen (2020[1996]), visual modality describes how visual elements convey the meaning of "truth" through varying degrees of realism or abstraction. It is evaluated using validity markers such as color saturation, modulation, depth, illumination, and brightness. However, Kress and Van Leeuwen (2020[1996]: 159) emphasize that modality is context-dependent, as every type of image has its own standards of "validity" based on its specific "context." Building on this idea and the concept of coding orientation, they classify visual modality into four main types: technological, naturalistic, abstract, and sensory. Technological modality is the visual representation of scientific or technological information, whose "truth" is coded based on "the practical usefulness of the image" (Van Leeuwen, 2005: 168), as seen in maps (Roth, 2021) and quantitative infographics (Lankow et al., 2012). Naturalistic modality conveys realistic meaning, with authenticity tied to the "representations of the real," as seen in photographs (Kress and Van Leeuwen, 2020[1996]: 155). Abstract modality communicates symbolic meaning, whose "truth" concerns the "essential qualities"

represented through abstraction (Kress and Van Leeuwen, 2020[1996]: 164), such as meanings in cartoons (Abraham, 2009). Sensory modality evokes emotions or represents surreal worlds, whose “truth” is coded based on sensory or artistic meaning (Kress and Van Leeuwen, 2020[1996]; Oja, 2023; Van Leeuwen, 2005).

Language style refers to the distinct ways language varies in communicative contexts (Bell, 1984; Labov, 1972a). The present study draws on Van Leeuwen’s (2005) framework for analyzing language style, which positions language within a broader semiotic meaning-making system. Insights from other scholars (e.g., Fairclough, 1992; Herman, 2009; Lewin et al., 2001; Labov, 1972a) will also be borrowed to supplement this approach as needed. Van Leeuwen (2005) identifies several prevalent language styles in contemporary lifestyle magazines such as advertising style, fashion captions, expert discourse, street language, and conversational style, which closely parallel the discourse of *lian-huanhua* under study. Advertising style aims to persuade consumers to buy products or services. It uses direct address, evaluative adjectives, and poetic devices to engage audiences, evoke emotions, and enhance memorability (Van Leeuwen, 2005). Fashion captions share similar features with advertising style by employing direct address, adjectives, and poetic devices, but are distinguished by trendy expressions that reflect the dynamic nature of fashion discourse (Machin and Van Leeuwen, 2005; Van Leeuwen, 2005). Van Leeuwen (2005: 152) describes them as a form of “edutainment,” namely “the combination of instruction... and pleasure.” Expert discourse, often presented as commentary in news discourse (Montgomery, 2007), is characterized by technical terminologies, abstract expressions, and a restricted verb range (e.g., “have,” “make”), while adopting a third-person perspective to reinforce the speaker’s authority (Machin and Van Leeuwen, 2005). Street language, somewhat similar to fashion captions, incorporates the latest slang and trendy expressions in order to create a novel, dynamic style. Finally, conversational style uses informal, everyday language to foster equality and relatability. Fairclough (1992) refers to this style as the “conversationalization” of public discourse, where formal language is replaced by casual, personalized expressions.

Moreover, news text like VNN involves both narrative and explanatory language. Narrative language refers to the use of linguistic and structural techniques to tell stories or experiences. It involves organizing events, characters, and actions into a coherent sequence in order to convey particular meanings, emotions, or themes (Labov, 1972b; Labov and Waletzky, 1967), while incorporating elements such as plots, settings, perspectives, temporal markers, and descriptive details (Herman, 2009). Explanatory language is employed to explain, inform, or describe an object, a process, or a concept. It avoids emotional appeals, storytelling, or persuasion, focusing instead on logical and systematic information presentation (Herman, 2008; Lewin et al., 2001). It differs from conversational language, which is more informal (Fairclough, 1992; Van Leeuwen, 2005), and narrative language, which focuses on stories, events, or experiences (Herman, 2009; Labov, 1972b).

Building on the above discussions, we propose an analytical framework for investigating discourse style in visual narrative news. The framework centers on visual modality and language style across three interconnected dimensions: visual, verbal, and visual-verbal. Visual dimension examines stylistic choices in visual text through four types of visual modality: technological (e.g., data visualization, infographics), abstract (e.g., icons, cartoons), naturalistic (e.g., photographs), and sensory (e.g., surreal or dreamlike landscapes). Verbal dimension examines stylistic choices in verbal text through five primary language styles: narrative (e.g., storytelling structures), commentary (e.g., expert

**Table 1 The frequency of stylistic features in *lian-huanhua*.**

Style types	Frequency	Total articles	Percentage (%)
Visual modality			
Abstract	98	101	97.03
Technological	90	101	89.11
Naturalistic	29	101	28.71
Language style			
Explanatory	99	101	98.02
Narrative	98	101	97.03
Fashionable	98	101	97.03
Commentary	95	101	94.06
Conversational	78	101	77.23

discourse), fashionable (e.g., advertising language, fashion captions, street language), conversational (e.g., informal expressions), and explanatory (e.g., explanations). Finally, the visual-verbal dimension explores the interplay of visual and verbal elements, where style emerges from their integration, such as speech bubbles and dialogue balloons (Kress and Van Leeuwen, 2020[1996]; Painter et al., 2013).

### Methodology

This study draws on a corpus of *lian-huanhua* articles published on ifeng.com and other relevant media platforms between 2013 and 2023. To build a robust dataset for investigating how *lian-huanhua* reframes hard news into visually engaging, entertainment-driven narratives, we employed a random sampling method (Neuendorf, 2017). Ten articles per year were selected using a random number generator, granting all articles “equal probability of being selected” (Creswell, 2014: 158). From the initial 110 articles, nine were excluded based on two criteria: (1) articles failing to adhere to the *lian-huanhua* format, as the visual-narrative structure is central to this genre; and (2) articles classified as “soft news” (e.g., entertainment and celebrity gossip). Soft news favors entertainment over pressing social issues, contrasting sharply with hard news, which focuses on political and public affairs (Reinemann et al., 2012). Including such content would muddy distinct narrative strategies, thereby obscuring this study’s focus on how *lian-huanhua* reconstructs the discourse of hard news (e.g., political, economic, or social issues).

Following the analytical framework outlined in Section 3, we conducted a bottom-up analysis of the data. This process involves identifying all instances of visual modality and language style by going through each of the articles. The instance can be a word, phrase, paragraph, image, or a cluster of images. Initially, the first author analyzed the data based on the framework and then discussed the preliminary results with the second author until a consensus was reached. This process involves rounds of analysis, discussions, and modification. Ultimately, we identified nine major stylistic features that fall into two groups: (1) visual modality, comprising technological, abstract, and naturalistic images, and (2) language styles, comprising explanatory, narrative, conversational, fashionable, and commentary language or discourse. The subsequent sections provide an in-depth analysis of each of these features.

### Results

Table 1 shows the frequency of specific stylistic features across the 101 *lian-huanhua* articles in the dataset. As we can see, visual modalities dominate the dataset, with abstract images appearing in 97.03 percent of all articles (98/101), followed by technological images (89.11%, 90/101), while naturalistic visuals are comparatively rare (28.71%, 29/101). Language styles exhibit more uniformity. Explanatory discourse comprises the largest share

**Table 2 The frequency of visual modality types in *lianhuanhua*.**

Types	Frequency	Percentage (%)
Abstract	2020	73.37
Technological	547	19.87
Naturalistic	186	6.76
<b>Total</b>	<b>2753</b>	<b>100</b>

**Table 3 The frequency of technological images in *lianhuanhua*.**

Types	Frequency	Percentage (%)
Frames	204	37.29
Bars	89	16.27
Pies	72	13.16
Lines	58	10.6
Formula	35	6.4
Tables	21	3.84
Maps	19	3.47
QR codes	9	1.65
Others	40	7.31
<b>Total</b>	<b>547</b>	<b>100</b>



**Fig. 1 Abstract images.** Text captured from “图解城乡养老并轨” [The urban and rural pension integration] (ifeng.com, 2014). Writer unknown but from ifeng.com’s Financial column. This figure is covered by the Creative Commons Attribution 4.0 International License. Retrieved from <<https://finance.ifeng.com/news/special/cxylbg>>.

(98.02%, 99/101), which is closely followed by narratives and fashionable expressions (97.03%, 98/101 each). Commentaries account for 94.06 percent (95/101) and conversational language appears in 77.23 percent (78/101). Nearly all stylistic features, except naturalistic images, occur in every article, underscoring their integral role in *lianhuanhua*’s multimodal design. The following sections analyze how these features are represented and (re)constructed in *lianhuanhua*.

**Style in visual text.** Image plays a pivotal role in shaping the style of *lianhuanhua*. According to Table 2, out of 101 articles, 2753 images are identified, with abstract images dominating at 73.37 percent, followed by technological images at 19.87 percent, and naturalistic images comprising a smaller proportion of 6.76 percent. This distribution suggests that abstract images play a dominant role in constructing a *lianhuanhua* discourse. However, technological images are also significantly used, appearing in nearly all the *lianhuanhua* articles, as shown in Table 1. These images demonstrate three major stylistic features: (1) abstract images are used to blend symbolic meaning with amusing messages, (2) technological images are used to visualize and simplify complex information, and (3) naturalistic images are used to reinforce the authentic representation of news content.

*Abstract images: blending symbolic meaning with amusement.* Abstract images, often consisting of comics/cartoons or icons, convey symbolic meaning through metaphorical or metonymic representation (Abraham, 2009; WD Feng, 2017). Figure 1, taken from the news article “The urban and rural pension integration,” uses visual metonymy to depict different pension systems. This

figure features four busts, each symbolizing a distinct social group and corresponding pension system, with captions accompanying the visuals above them (Barthes, 1977; Caple, 2013; Kress and Van Leeuwen, 1998, 2020[1996]): the bust in suits represents “enterprise workers,” the one in suits and glasses represents “government employees,” the one in crew-neck shirts and big beards represents “urban non-employed persons,” and the one in crew-neck shirts and small beards represents “rural residents.”

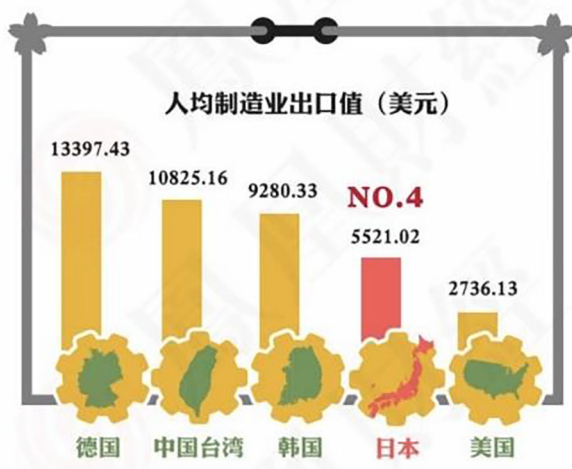
Moreover, the minimalist sketches in these images convey not only the meaning of a “type” (Painter et al., 2013: 31) but also a sense of amusement. Each image employs distinct visual cues to convey a social group, with deliberate contrasts highlighting their stereotypical traits. For instance, the depiction of “government employees” as figures in suits and glasses implies that this group maintains a polished, respectable lifestyle, while “urban non-employed persons” are portrayed in crew-neck shirts and unkempt beards, suggesting a dishevelment in their daily lives. This juxtaposition of minimalist sketches not only distinguishes different levels of social classes but also injects (satirical) humor into the representations (Thussu, 2007; Van Leeuwen, 2005).

This effect is also evident in Figs. 6, 8, 10. For instance, Fig. 10 portrays a debate between two individuals, each symbolizing contrasting perspectives held by two distinct social groups. The cartoon-style depiction shows the two figures leaning forward in an intense argument, with fingers pointed at each other. This humorous representation not only effectively conveys the information but also prompts viewers to reflect on the meanings behind the debate.

*Technological images: visualizing and simplifying complex information.* Technological images aim at visualizing complex information, so much so that audiences can easily understand the scientifically abstract messages (Kress and Van Leeuwen, 2020[1996]). These images are mainly infographics such as diagrams, tables, charts, models, and formulas (Chun, 2023; Kuba and Jeong, 2023; Lankow et al., 2012; Roth, 2021; Smiciklas, 2012). Table 3 shows the frequency of technological images used in *lianhuanhua*.

This table shows that among all the infographics, frames (e.g., timelines) occur most frequently, accounting for 37.29 percent, trailed closely by bars (16.27%), pies (13.16%), lines (10.6%), formulas (6.4%), tables (3.84%), maps (3.47%), QR codes (1.65%), and others (7.31%). Frames are narrative infographics often used to recount news stories (Lankow et al., 2012), such as contextual timelines (Kulkarni et al., 2023). Other infographics are quantitative ones commonly used to visualize statistical outcomes such as bars, pies, and lines (Lankow et al., 2012).

While conveying scientific information, technological images in *lianhuanhua* often incorporate humorous elements and they



**Fig. 2 Technological image.** Text captured from “日本制造业真的跌落神坛了吗？” [What’s wrong with Japanese manufacturing?] (ifeng.com, 2016). Designed and produced by Chen Cheng and Zhang Xiaowan. This figure is covered by the Creative Commons Attribution 4.0 International License. Retrieved from <<https://finance.ifeng.com/picture/special/picture334/>>.

新股民 (诚惶诚恐):  
股神您好,我想问下您这一生如此成功的原因是什么?



巴菲特:

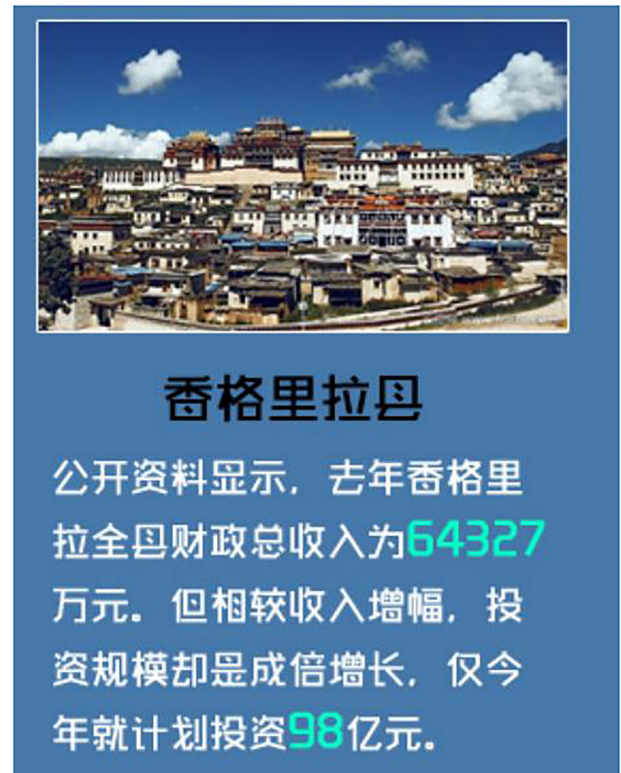
专注。(看了一眼紧张的新股民,补充道)我和比尔盖茨都这么认为。我认为,你要把事情做好,一定要喜欢它。

**Fig. 3 Naturalistic image.** Text captured from “巴菲特对话中国80、90小鲜肉股民” [Buffett talks to the 80 s and 90 s in China] (ifeng.com, 2015). Writer unknown but from ifeng.com’s Financial column. This figure is covered by the Creative Commons Attribution 4.0 International License. Retrieved from <<https://finance.ifeng.com/stock/special/jinsz61/>>.

are thus likely to produce a sense of “edutainment” (Van Leeuwen, 2005: 152). Consider Fig. 2.

This figure, drawn from the news article “What’s wrong with Japanese manufacturing?” illustrates Japan’s global ranking in manufacturing exports per capita through a comparative bar chart. The visualization contrasts Japan’s position (labeled “No. 4”) with higher-ranked countries and regions, offering a clear, data-driven snapshot of its competitive standing. Simultaneously, this figure incorporates humorous, witty elements into the text, such as the ironic rhetorical question “Once esteemed, why is it now in such a dire state?” alongside playful visuals like cartoonish gears, stylized national maps, and bold color contrasts. These lighthearted touches convey not only statistical data but also a sense of amusement (Thussu, 2007; Van Leeuwen, 2005).

**Naturalistic images: accentuating authenticity.** Naturalistic images emphasize accuracy by ensuring that the depicted objects closely resemble their real-world counterparts (Kress and Van Leeuwen, 2020[1996]). Although less commonly used (see Table 1), these images play a significant role in enhancing the authenticity of information. On the one hand, they appear in the form of



**Fig. 4 Naturalistic image.** Text captured from “中国“底特律”大猜想” [China’s “Detroit” hypothesis] (ifeng.com, 2016). Designed and produced by Chang Li. This figure is covered by the Creative Commons Attribution 4.0 International License. Retrieved from <<https://finance.ifeng.com/news/special/dfzcs/>>.

photographic profiles to manifest the real-world identity of the speakers mentioned in the news (e.g., Figs. 3, 9). On the other hand, they serve as visual supplements to illustrate the content of the accompanying text (Barthes, 1977) (e.g., Fig. 4). Either way, they function to reinforce the authenticity of the information presented.

Figure 3, sourced from the news article “Buffett talks to the 80 s and 90 s in China,” illustrates a simulated dialogue between Warren Buffett and young Chinese investors. The investors are depicted generically through “minimalist” comic sketches (Painter et al. 2013: 31–32), while Buffett is portrayed with a “naturalistic” photograph, lending authenticity to his identity and the credibility of his statements (Kress and Van Leeuwen, 2020[1996]: 155–156).

Similarly, Fig. 4 features a photograph of Shangri-La County, accompanied by a caption highlighting that its fiscal revenue was 643.27 million yuan in 2012, yet the government raised its investment to 980 million yuan in 2013. The photograph, accompanied by the caption of amusing topographic design (Van Leeuwen, 2006), visually illustrates the location discussed in the text, functioning to enhance the credibility and authenticity of the information reported (Barthes, 1977; Martinec and Salway, 2005).

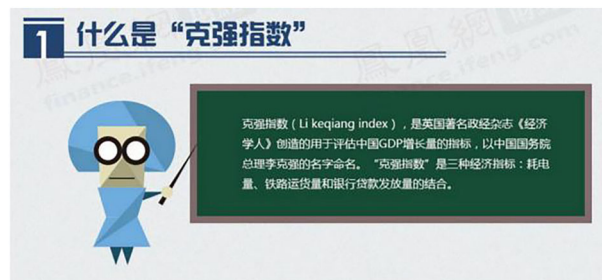
**Style in verbal text.** Verbal text of *lianhuanhua* also embodies the core characteristics of fast-food culture: simplicity, trendiness, and entertainment. As shown in Table 1, over 90 percent of *lianhuanhua* articles incorporate explanatory, narrative, commentary, and fashionable expressions, with conversational expressions closely trailing (77.23%). The widespread use of these



**Fig. 5 A resume-formed introduction.** Text captured from “自由贸易区和自由贸易港有什么差别？” [What are the differences between Free Trade Zone and Free Trade Port?] (ifeng.com, 2018). Designed by Xiao Shitou, produced by Liu Zixin. This figure is covered by the Creative Commons Attribution 4.0 International License. Retrieved from <[https://finance.ifeng.com/a/20180420/16155387\\_0.shtml](https://finance.ifeng.com/a/20180420/16155387_0.shtml)>.

elements is instrumental in shaping *lianhuanhua*’s fast-food style, as the following analysis illustrates.

*Visualizing explanatory discourse.* *Lianhuanhua* is primarily designed to address pressing and intricate social issues in hard news, which is why explanatory discourse dominates in this type of news (98.02%, see Table 1). Explanatory discourse relies heavily on clear, straightforward language (Herman, 2008; Lewin et al., 2001), often resulting in text that sounds dry and boring. However, *lianhuanhua* tends to combine plain language with vivid images, creating explanations that are both engaging and accessible to readers. Figure 5, for example, depicts a new concept called “Free Trade Zone” (FTZ). It uses everyday language and bullet points to emphasize key terms like “身份” [identity], “地



**Fig. 6 An example of explanatory discourse.** Text captured from “科普贴: 解读“克强指数”” [Popular science post: Interpreting the ‘Li Keqiang Index’] (ifeng.com, 2013). Designed and produced by Zhang Siwen and Zhao Chunhua. This figure is covered by the Creative Commons Attribution 4.0 International License. Retrieved from <<https://finance.ifeng.com/news/special/lujiuzui2013/jdkezs.shtml>>.

位” [status], and “自由” [freedom]. The text adopts a resume-like format, humorously portraying the FTZ as a person, with its identity, status, and freedom representing its core attributes.

Slightly different, Fig. 6 serves to explain the concept of “Li Keqiang Index [克强指数],” a term not widely used among the public. To enhance understanding, the text dissects this term with both visual and verbal language. It opens with a question-style title, “什么是‘克强指数’” (What is the Li Keqiang Index?), displayed in bold font and vivid color that immediately capture the viewer’s attention. The explanation that follows is presented in a “speech bubble,” which includes a “sayer” and accompanying text (verbiage) that clarifies the term (Kress and Van Leeuwen, 2020[1996]: 63–64; Painter et al., 2013: 68–69). The “sayer” is depicted as a cartoonish figure wearing glasses and holding a pointer, reminiscent of a teacher explaining the concept. This engaging presentation makes the definition of the term “Li Keqiang Index” more accessible and appealing to viewers.

*Question-and-answer formats in narrative.* A news report typically follows a narrative structure, which, as defined by Labov (1972b; Labov and Waletzky, 1967), comprises six key components: abstract (summary of the story), orientation (contextual background), complication (a sequence of escalating events), resolution (solution or outcome), evaluation (significance of the story), and coda (concluding remarks). Central to this framework is the complication, a chain of events (Event-1 to Event-n) that build tension until a critical “problem” arises, followed by the resolution, the decisive moment that resolves the conflict and concludes the narrative (Montgomery, 2010).

*Lianhuanhua* follows a distinct narrative structure characterized by a question-and-answer (Q&A) format. Our data show that *lianhuanhua* primarily presents news through a self-questioning and self-answering approach, guiding readers through a sequence of questions step by step toward the story’s final resolution. For example, in the news article “Why is Japan providing funding to help China combat smog?” the journalist employs a series of Q&As to detail Japan’s motivations for “assisting China in combating smog” (see Table 4).

The Q&A format has at least two merits. On the one hand, it can actively engage the audience by posing thought-provoking questions that encourage readers to reflect, make choices, or share their opinions, thus fostering greater interaction with the news (D Feng, 2020, 2024; Montgomery, 2007). On the other hand, this format simplifies and deconstructs complex information, making it more accessible to the audience.

*Fashion and colloquialism.* The use of fashionable expressions is a defining characteristic of *lianhuanhua*. This style aligns with

**Table 4 An example of Q&A formats.**

Rounds	Questions	Answers
1	What's the situation?	The donation will help establish the China-Japanese Green Exchange Fund for tree planting.
2	How many trees will be planted?	About 10 million per year, covering an area of 65,000 hectares.
3	Why's Japan interested in aiding China with tree planting?	Some Japanese scholars have presented data ... (followed with diagrams highlighting the impact of PM 2.5 pollution from China on the air quality in Japan).
4	How does China's PM 2.5 reach Japan?	PM 2.5 is carried to Japan by prevailing northwest winds.
5	... Why's China's contribution rate still high?	... the impact on Japan often appears relatively large.

## 举个栗子

小明想在二线城市购买90平方米，  
总价150万元的二套房屋



按照新政策的税率，小明买房子在契税方面省了3万元，刷房子的钱就这样省下来了呢。

**Fig. 7 An example of conversational expressions.** Text captured from “房产契稅新政？你想懂的都在这儿！” [New Deal on real estate deed tax? Everything you want to understand is right here!] (ifeng.com, 2016). Designed and drawn by Du Juncheng, edited by Niu Guluhui. This figure is covered by the Creative Commons Attribution 4.0 International License. Retrieved from <<https://finance.ifeng.com/picture/special/picture212/>>.

some prominent qualities of fast-food culture, such as fashion, trendiness, and entertainment, echoing Van Leeuwen’s argument on the style of fashion captions (2005; Machin and Van Leeuwen, 2005). Example (1) features headings infused with trendy expressions, such as “高流动性” [high liquidity], “低通胀” [low inflation], and “恐怖袭击” [terrorist attack]. These terms create a fashion-tinged and engaging tone that resonates with readers.

- (1) “高流动性”“低通胀” “日本的资本外汇市场体量巨大”“日本发生政变、骚乱和恐怖袭击的可能性小” [High liquidity, low inflation, Japan’s capital exchange market is huge, and the possibility of coups, riots and terrorist attacks in Japan is small].  
Trendy phrases also appear within the body of news articles. Below are some examples used in the report on TikTok’s international expansion.
- (2) “……有关TikTok的大型连续剧播得是热火朝天，不少人那是手心捏着一把汗在追剧啊”“让我来扒一扒”“TikTok是怎么在海外打出一片天的”“四大招搞定”“有前辈们罩着……” [... The large-scale series about TikTok has been broadcast actively, and many people are following the ‘drama’ with sweat in their palms.” “Let me have an in-depth search.” “How has TikTok made success overseas?” “Four strategies to make it.” “Under predecessors’ protection ...”].

These expressions encapsulate TikTok’s turbulent journey in North America, metaphorically likened to a “连续剧” [drama series]. The text incorporates popular internet buzzwords such as “热火朝天” [intensely active], “追剧” [following a drama], “扒一扒” [digging into], “打出一片天” [achieving success], “四大招” [four strategies], “前辈们” [predecessors], and “罩着” [providing

protection]. These phrases vividly illustrate the highs and lows of TikTok’s global expansion, capturing readers’ attention and prompting their reflection on the associated social issues while making the information engaging and entertaining.

Additionally, *lianhuanhua* extensively incorporates conversational expressions, accounting for 77.23 percent of the data (see Table 1). Fairclough (1992) refers to this phenomenon as the “conversationalization” of public discourse, arguing that public discourse is shifting toward an informal communication style. *Lianhuanhua* exemplifies this trend, as shown in Fig. 7.

In this example, the phrase “举个例子” [take an example] is humorously replaced with “举个栗子” [take a chestnut], leveraging the phonetic similarity between “栗子” [chestnut] and “例子” [example]. This amusing wordplay, reinforced through the use of bold colors and enlarged text (Van Leeuwen, 2006), adds a lighthearted tone to the text (Machin and Van Leeuwen, 2005; Van Leeuwen, 2005). Additionally, the text employs an informal nickname “小明” [Xiao Ming] to denote the main character of the story presented here, signalling a personal or casual touch in the narrative. These informal expressions help make the content accessible and engaging to readers.

The use of a “dialogue” format, often paired with comic images, is another example of conversational expressions. Figure 8 presents a quasi-dialogue that captures the concerns of ordinary Chinese citizens regarding home purchasing.

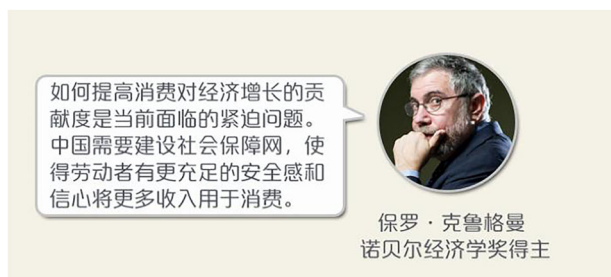
The conversation features two humorous characters, “Slim Tall” and “Little Fat,” who engage in a playful exchange. Slim Tall comically expresses hesitation about paying the deed tax, while Little Fat counters with a more compelling argument. Rendered as trendy digital stickers, the characters reflect the integration of modern technology and fast-paced consumption culture in journalism (Denisova, 2023; Pu, 2021). Meanwhile, the verbal text employs colloquial expressions such as “本宝” [*benbao*, meaning “self”] and the playful phrase “揍是任性” [*zoushi renxing*, meaning “just being willful”], to mimic everyday conversation. As a result, the dialogue humorously represents public sentiments and effectively captures the audience’s interest.

*Image-text projection in commentaries.* Table 1 reveals that 94.06 percent of articles employ commentaries, which are characterized by trendy expressions (e.g., “big news,” “high liquidity,” “low inflation”) and image-text projections. The latter refers to a type of visual commentary representation, where a commentator, often depicted via his/her torso or profile, is paired with text in “speech bubbles” or “dialogue balloons” (Kress and Van Leeuwen, 2020[1996]: 63–64; Painter et al., 2013: 68–69), as shown in Fig. 9.

This example demonstrates a typical image-text projection, combining visual and textual elements to reinforce the speaker’s expertise. The image features an avatar of Paul Krugman, a Nobel Prize-winning economist, alongside a caption that bolsters the information’s authenticity. Technical terms in the speech bubble, such as “经济增长” [economic growth] and “社会保障网” [social safety net], further emphasize Krugman’s authority. By combining visuals with accessible language, this format enhances the credibility and intelligibility of the expert’s commentary.



**Fig. 8 A quasi-dialogue.** Text captured from “房产契税新政？你想懂的都在这儿！” [New Deal on real estate deed tax? Everything you want to understand is right here!] (ifeng.com, 2016). Designed and drawn by Du Juncheng, edited by Niu Guluhui. This figure is covered by the Creative Commons Attribution 4.0 International License. Retrieved from <<https://finance.ifeng.com/picture/special/picture212/>>.



**Fig. 9 An example of image-text projection.** Text captured from “政商大佬眼中的中国经济下行隐忧” [China’s economic downturn in the eyes of political and business leaders] (ifeng.com, 2015). Designed by Zhang Xiaomeng Jiuyi and Laoai Laoyanqiang, and produced by Feibao Feiqu Na’er. This figure is covered by the Creative Commons Attribution 4.0 International License. Retrieved from <<https://finance.ifeng.com/news/special/picture117/>>.

Image-text projections may adopt a debate structure, as shown in Fig. 10. This figure visualizes a hypothetical four-round debate on the merits and drawbacks of artificial meat, here being the second round focusing on environmental impact.

It depicts two cartoonish figures engaged in a dynamic exchange, with their contrasting viewpoints articulated in text boxes and emphasized through exaggerated gestures and expressions in the image. By merging text-based arguments with visually engaging storytelling, the figure exemplifies how such representations balance serious informative critique with entertainment (Machin and Van Leeuwen, 2005; Thussu, 2007; Van Leeuwen, 2005).

**Discussions**

By drawing on the theories of visual modality and language style, we have analyzed a corpus of *lianhuanhua* articles, a form of



**Fig. 10 An example of visually-represented arguments.** Text captured from “李嘉诚比尔盖茨都疯狂 人造肉咋这么火？” [Li Ka-shing and Bill Gates are crazy. Why is artificial meat so popular?] (ifeng.com, 2019). Designed by Ai Xiaojun, and written by Xiao Muye. This figure is covered by the Creative Commons Attribution 4.0 International License. Retrieved from <<https://finance.ifeng.com/c/7mYUWan6SoK>>.

Chinese visual narrative news, to explore its stylistic features in presenting hard news. The study reveals that *lianhuanhua* tends to use abstract images to merge symbolic meaning with amusement, technological images to visualize and simplify complex information while adding playful elements, and naturalistic images to enhance the authenticity of news content. The verbal text is designed to enhance cohesion with visual elements through strategies including visualized explanatory discourse, Q&A formats, fashionable and conversational language, and trendy and visually-represented commentaries. These stylistic features reflect a fast-paced, snackable media consumption habits in China, where platforms such as Weibo, TikTok, and WeChat prioritize visual and multimodal content in presenting news (Ma, 2016; Pu, 2021), reflecting a societal preference for quick, visually digestible information. *Lianhuanhua* capitalizes on this trend by blending verbal conciseness with visually striking design, reframing complex issues—conventionally covered as hard news—into digestible formats that reduce cognitive effort while enhancing audience engagement. This reductionist approach mirrors the logic of fast-food culture, which prioritizes convenience and instant gratification over depth or quality of content (Frye and Bruner, 2012).

By stripping down textual complexity and emphasizing visuals, *lianhuanhua* enables audiences to quickly grasp a story's essence without extensive reading. Its emphasis on striking visuals parallels the fast-food industry's use of eye-catching marketing, as both rely on aesthetics to engage sensory preferences and attract consumers.

This shift is also evident at the production end of media discourse. The rise of digital platforms, coupled with the emergence of "attention economy" (Franck, 2019), drives media producers to prioritize brevity, visual appeal, and instant engagement in the competition for audiences (Cooper, 2011). As a result, the production of hard news, once grounded in depth and rigor, increasingly embraces entertainment-oriented, visually compelling formats. This shift is noticeably evident in *lianhuanhua* articles, where complex political, economic, and social issues are distilled into concise, visually driven narratives (D Feng, 2024). What is more, *lianhuanhua* integrates humorous elements and shareable visuals into news coverage, demonstrating its recognition and acceptance of the ascendancy of infotainment that blurs the traditional boundaries between hard news and entertainment (Harcup and O'Neill, 2017; Thussu, 2007).

While these practices enhance social media virality and expand audience reach, they risk oversimplifying complex issues into easily consumable, gratification-driven content. This creates a paradox: although visually engaging storytelling democratizes access to serious public discourse, its transformation into spectacle often sacrifices nuance, reducing critical issues to eye-catching fragments. This tension echoes Postman's (1987) warnings about the erosion of public discourse. When hard news must "amuse" to inform, the imperative to entertain risks overshadowing the depth required for meaningful civic engagement, a trade-off that mirrors the broader commodification of information in the digital age.

To conclude, the findings of this study contribute to the study of visual storytelling in media discourse. By offering a framework for analyzing the role of visual storytelling, this study illustrates how visual elements such as images, infographics, and comics interact with concise, trendy, and everyday language to enhance the accessibility and appeal of news. By integrating visual modality with language style, the study underscores the significance of visual storytelling in shaping the production practice of contemporary media discourse (Caple and Knox, 2015; Chun, 2023; Roth, 2021), particularly in the digital era, where discourse increasingly relies on the dynamic interplay of visuals, words, and other semiotic resources. In addition, this study adds to literature on social semiotics by examining *lianhuanhua* within its socio-cultural context. By linking its multimodal features to broader social trends, the research illustrates how MDA can be applied to uncover sociocultural meanings embedded in media narratives. Future research could extend this approach to other forms of VNN, including both hard and soft news, by exploring their cultural-semiotic dimensions. This would involve examining how evolving semiotic resources interact with shifting sociocultural values in response to the changing media landscape. Particular focus could be placed on the growing role of visual storytelling in news presentation and its potential to balance audience engagement with the depth and complexity of news content.

### Data availability

The data analyzed in the present study can be accessed at <https://doi.org/10.6084/m9.figshare.28853123.v3>.

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### Note

1 Reinemann et al. (2012: 232) distinguish hard and soft news across three dimensions: "topic," "focus," and "style," with topic serving as the foundation. Following this framework, we classify news on political, economic, and public issues as hard news, and entertainment, celebrity gossip, etc. as soft news.

### References

- Abraham L (2009) Effectiveness of cartoons as a uniquely visual medium for orienting social issues. *J Commun Monogr* 11:117–165
- Anderson PM, He X (1999) Culture and the fast-food marketing mix in the people's Republic of China and the USA. *J Int Consum Mark* 11:77–95
- Barthes R (1977) *Image-music-text* (trans: Heath S). Fontana, London
- Bateman JA, Tseng C-I (2023) Multimodal discourse analysis as a method for revealing narrative strategies in news videos. *Multimodal Commun* 12:261–285
- Bell A (1984) Language style as audience design. *Lang Soc* 13:145–204
- Best AL (2014) Youth consumers and the fast-food market. *Food Cult Soc* 17:283–300
- Caple H (2013) *Photojournalism: a social semiotic approach*. Palgrave Macmillan, Basingstoke, UK
- Caple H, Knox J (2015) A framework for the multimodal analysis of online news galleries: What makes a "good" picture gallery? *Soc Semiot* 25:292–321
- Cairo A (2019) *How charts lie: getting smarter about visual information*. WW Norton & Company, New York
- Chun RS (2023) A framework for understanding and evaluating news infographics. *J Visual Literacy* 42:110–129
- Clottes J (2016) *What is paleolithic art?: cave paintings and the dawn of human creativity*. University of Chicago Press, Chicago
- Cooper TW (2011) *Fast media, media fast: how to clear your mind and invigorate your life in an age of media overload*. Gaeta Press, Boulder, CO
- Creswell JW (2014) *Research design: qualitative, quantitative, and mixed methods approaches*, 4th edn. Sage, Thousand Oaks, CA
- Denisova A (2023) Viral journalism. Strategy, tactics and limitations of the fast spread of content on social media: case study of the United Kingdom quality publications. *Journalism* 24:1919–1937
- Eisner W (1985) *Comics and sequential art*. Poorhouse Press, Tamarac, FL
- El Refaie E (2009) Multiliteracies: how readers interpret political cartoons. *Visual Commun* 8:181–205
- Ellison K, Truman E, Elliott C (2023) Picturing food: the visual style of teen-targeted food marketing. *Young Consum* 24:352–366
- Fairclough N (1992) *Discourse and social change*. Polity, Cambridge
- Feng D (2020) Audience engagement in the discourse of TV news kernels: the case of BBC News at Ten. *Discourse Commun* 14:133–149
- Feng D (2024) A discourse analysis of visual narrative news. Nankai University Press, Tianjin
- Feng WD (2017) Metonymy and visual representation: towards a social semiotic framework of visual metonymy. *Visual Commun* 16:441–466
- Franck G (2019) The economy of attention. *J Soc* 55:8–19
- Frye J, Bruner M (2012) *The rhetoric of food: discourse, materiality, and power*. Routledge, New York
- Gardiner A (1957) *Egyptian grammar: being an introduction to the study of hieroglyphs*, 3rd edn. Griffith Institute, Oxford
- Gavaler C (2022) *The comics form: the art of sequenced images*. Bloomsbury Academic, London
- Groensteen T (2007) *The system of comics* (B Beaty, N Nguyen, Trans). University Press of Mississippi, Jackson, MS
- Halliday MAK (1978) *Language as social semiotic: the social interpretation of language and meaning*. Edward Arnold, London
- Harcup T, O'Neill D (2017) What is news? news values revisited (again). *J Stud* 18:1470–1488
- Herman D (2008) Description, narrative, and explanation: text-type categories and the cognitive foundations of discourse competence. *Poetics Today* 29:437–472
- Herman D (2009) *Basic elements of narrative*. Wiley-Blackwell, Chichester, UK
- Ho M-T, Proglar J, Vuong Q-H (2021) An anatomy of satirical cartoons in contemporary Vietnam: political communication and representations of systemic corruption in a one-party state. *Asian Stud Rev* 45:711–728
- Jewitt C (2009) *The routledge handbook of multimodal analysis*. Routledge, London
- Kearns C, Kearns N (2020) The role of comics in public health communication during the COVID-19 pandemic. *J Visual Commun Med* 43:139–149
- Kress G, Van Leeuwen T (1998) Front pages: (The critical) analysis of newspaper layout. In: Bell A, Garrett P (eds) *Approaches to media discourse*, Wiley-Blackwell, Oxford, UK, pp 186–219
- Kress G, Van Leeuwen T (2020) *Reading images: the grammar of visual design*, 3rd edn, Routledge, London
- Krum R (2014) *Cool infographics: effective communication with data visualization and design*. John Wiley & Sons, Indianapolis, IN

- Kuba R, Jeong A (2023) Demystifying visual design: a sequential analysis of design processes in infographic visual composition. *J Visual Literacy* 42:26–47
- Kulkarni S, Thomas R, Komorowski M et al. (2023) Innovating online journalism: new ways of storytelling. *J Practice* 17:1845–1863
- Labov W (1972a) *Language in the inner city: studies in black english vernacular*. University of Pennsylvania. University of Pennsylvania Press, Philadelphia
- Labov W (1972b) *Sociolinguistic patterns*. University of Pennsylvania Press, Philadelphia
- Labov W, Waletzky J (1967) Narrative analysis: oral versions of personal experience. In: Helm J (ed), *Essays on the visual and verbal arts: proceedings of the 1966 annual spring meeting of the american ethnological society*. University of Washington Press, Seattle, pp 12–44
- Lankow J, Ritchie J, Crooks R (2012) *Infographics: the power of visual storytelling*. John Wiley & Sons, Hoboken, NJ
- Lewin BA, Fine J, Young L (2001) *Expository discourse: a genre-based approach to social science research texts*. Continuum, London and New York
- Liu Y, Zhang Z (2024) News narration, local visibility and public life in Chinese short videos. *J Practice* 18:2108–2125
- Ma W (2016) China's mobile economy: opportunities in the largest and fastest information consumption boom. John Wiley & Sons, Chichester
- Machin D, Van Leeuwen T (2005) Language style and lifestyle: the case of a global magazine. *Media Cult Soc* 27:577–600
- McCloud S (1993) *Understanding comics: the invisible art*. Kitchen Sink Press, New York
- Martinez R, Salway A (2005) A system for image-text relations in new (and old) media. *Visual Commun* 4:337–371
- Montgomery M (2007) *The discourse of broadcast news: a linguistic approach*. Routledge, London
- Montgomery M (2010) Rituals of personal experience in television news interviews. *Discourse & Communication* 4:185–211
- Neuendorf KA (2017) *The content analysis guidebook*. Sage, London
- O'Halloran KL (2004) *Multimodal discourse analysis: systemic functional perspectives*. Continuum, London
- Oja M (2023) Semiotic mode and sensory modality in multimodal semiotics: recognizing difference and building complementarity between the terms. *Sign Syst Stud* 51:604–637
- Painter C, Martin JR, Unsworth L (2013) *Reading visual narratives: image analysis of children's picture books*. Equinox, London
- Postman N (1987) *Amusing ourselves to death: public discourse in the age of show business*. Penguin Books, London
- Pu Y (2021) Fed with the wrong stuff: information overload (?) and the everyday use of the Internet in rural and urban China. *International communication gazette* 83:404–427
- Reinemann C, Stanyer J, Scherr S et al. (2012) Hard and soft news: a review of concepts, operationalizations and key findings. *Journalism* 13:221–239
- Ritzer G (1983) The "McDonaldization" of society. *J Am Cult* 6:100–107
- Roth RE (2021) Cartographic design as visual storytelling: Synthesis and review of map-based narratives, genres, and tropes. *Cartogr J* 58:83–114
- de Saussure F (1974) *Course in general linguistics* (W Baskin, Trans.; C Bally and A Sechehaye, Eds.). McGraw-Hill Book Company, New York
- Schmid CF (1983) *Statistical graphics: design principles and practices*. John Wiley and Sons, New York
- Semotiuk O (2023) Superhero contra butcher: Zelensky and Putin in political cartoons on Russian aggression. *Visual Commun* 0:14703572231189753
- Shi W, Li J (2025) News diversity under algorithms: the effects of pre-selected and self-selected personalization on Chinese TikTok (Douyin). *Digital J* <https://doi.org/10.1080/21670811.2025.2450312>
- Smiciklas M (2012) *The power of infographics: using pictures to communicate and connect with your audiences*. Pearson Education, Indianapolis, IN
- Smith AF (2012) *Fast food and junk food: an encyclopedia of what we love to eat*. Greenwood, Santa Barbara, CA
- Thussu DK (2007) *News as entertainment: the rise of global infotainment*. Sage, London
- Tufte ER (2001) *The visual display of quantitative information*, 2nd edn. Graphics Press, Cheshire, CT
- Van Leeuwen T (2006) *Towards a semiotics of typography*. *Inform Design J* 14:139–155
- Van Leeuwen T (2005) *Introducing social semiotics*. Routledge, London
- Veacock C (2021). China daily infographics: metaphor, multimodality and the multi-layering of news discourse. In Liu NX, Veacock C, Zhang SI (eds.) *Chinese news discourse: from perspectives of communication, linguistics and pedagogy*. Routledge, London, pp 103–125
- Xiang Y (2019) User-generated news: Netizen journalism in China in the age of short video. *Glob Media China* 4:52–71
- Xu VW (2022) WeChat and the sharing of news in networked China. *Digital J* 10:1441–1463
- Yan Y (2006) McDonald's in Beijing: the localization of Americana. In Watson JL (ed) *Golden arches East: McDonald's in East Asia*, 2nd edn. Stanford University Press, Stanford, CA, pp 39–76
- Yu Z, Hou J, Zhou OT (2023) Short video activism with and on Douyin: an innovative repertoire of contention for Chinese consumers. *Soc Media Soc* 9:20563051231157603

### Author Contributions

Both authors contributed equally to this work. Ping Gao was responsible for data collection and analysis, and wrote the initial drafts of the article. Debing Feng designed the study, supervised the analysis, and revised and edited the final version of this work.

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### Competing interests

The authors declare no competing interests.

### Ethical Approval

Ethical approval was not required as the study did not involve human participants.

### Informed Consent

Informed consent was not required as the study did not involve human participants.

### Additional information

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