

# Communication of City Image through Urban Symbols on Social Media: Take Nanjing as an Example

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**Abstract**—This article explores how individuals acquire information about Nanjing's urban symbols through Chinese social media platforms in their daily lives. Two questionnaires were administered to assess respondents' knowledge of Nanjing's symbols and the channels through which they receive related information. Symbols identified from the first questionnaire were analyzed using Exploratory Factor Analysis and subsequently grouped into four categories. These four categories of symbols, along with seven major Chinese social media platforms, were then examined through multivariate regression analysis. The results revealed that compared with food symbols Weixin (WeChat) was more effective in communicating landmark symbols and Xiaohongshu was comparatively less effective in disseminating cultural symbols.

**Keywords**—city image, urban symbol, social media

## I. INTRODUCTION

Environmental images proposed by Lynch [1] as the result of an interactive process between the observer and the surrounding environment may have different representations because of various personal tastes and perspectives, but of interest to city planners are common mental images representing notable convergence of opinion and are reached due to the interplay among a singular physical reality, a shared culture, and fundamental physiological characteristics. In a gradually more hypercompetitive world, competition between places and destinations to attract tourists and other stakeholders is increasing at a fast pace. Thanks to this competition, cities cannot afford to be aloof from how they are perceived [2]. A city can aggregate resources and stand out in the new round of competition if it not only offers advanced hardware facilities but also creates a pleasant cultural experience which is critical for shaping the image of the city and attracting tourists, immigrants and other groups [3].

The dissemination of a city's image requires intermediaries undertaken by various cultural symbols [4]. Urban symbols are representative entities bearing cultural features and inherited value, thus leaving a lasting impression on people and instilling a sense of pride in urban residents [5]. The rapid development of the Internet has led to social media's integration into people's everyday lives. As a daily part of maintaining communication with friends, family members, work associates, and even people one doesn't know [6], social media plays a significant part in the dissemination of information [7]. Being more participative, interactive, open and transparent than traditional media, social media have been increasingly used by Chinese cities to publicize urban images and build municipal brands, and can enhance the sway of urban customers in city marketing [8]. Today's media is not only recording urban imagery but extensively penetrating into and participating in the generation of urban imagery [3].

However, the relative effectiveness of various social media platforms in transmitting urban symbols remains unclear. The objective of this study is to conduct an empirical analysis of city image dissemination social media case.

## II. LITERATURE REVIEW

Like a company, a city has its own stakeholders, such as residents, municipalities, firms, tourists and other individuals or organizations. The urban image is valuable and important to the city's soft power and further the national profile in the world [9]. A city's image generally reflected in public perceptions, emotions, and opinions plays a key role in urban management, planning, urban cultural identity, and tourism asset development [10]. A wealth of research on city image has been done from the perspectives of either image projection related to city marketing or branding [11–13, 8] or image perception in the field of communication studies [14–19, 10].

### A. City Image Marketing

Although traditional measures such as TV, radio, newspaper, magazines and mega events (i.e., tourism festivals and sports events) still play a role in city marketing, these methods relying on one-way communication fail to offer stakeholders including city residents, local businesses, and other urban actors chances to participate, give effective feedback, or interact with one another [8], and have a certain time lag in the effectiveness of urban image dissemination [20]. As society continues to progress, the Internet, characterized by its remarkable interactive, visual, convenient, and multi-participatory technological features [21], has been increasingly tapped for city image branding purposes. Online branding has been used by both government agencies and companies to manifest values and features of city brands on governmental and corporate websites [22]. Destination images of Dubai city were presented by both public and private agencies through images and verbal texts on twenty Dubai-based websites covering different sectors [11]. New media, social media in particular, facilitates and promotes direct interaction [23] such as that between municipalities and residents (or visitors), as well as the generation of content [24, 25]. Strategies of social media have been taken by cities worldwide as a component of their marketing campaign to advertise themselves to a wide range of stakeholders [13]. Social media were recommended as an effective tactic to popularize destinations based on case studies of Chinese metropolises [8]. Either microblog or WeChat official account was used by 21 municipalities in Chinese Guangdong Province and 2 Special Administrative Regions of Hong Kong and Macau to publish local information and the degree of urban development was found to be in a direct proportional relationship with the extent of

the application of urban promotion, marketing, and branding strategies [12].

### *B. City Image Perception*

City image perception, manifested in the representation of cities by individual users on social media, has emerged as a popular topic in research on city communication and urban imagery. Geotagged social media data have been widely used to explore the image of cities worldwide displayed by online platform users [26, 27] [17]. Topics related to various geographical hotspots in Beijing were extracted from geotagged Beijing's Weibo (microblog) data from a mix of residents and non-residents [10]. Geotagged images and texts from Instagram and Twitter were gathered to study the perception of the cities in the Tri-City Region in northern Poland, and the results showed that social media data offer a dependable means of assessing perceived city images [15].

Beyond geotagged images and texts, short videos have come to the fore as an even more favored form of cultural practice [28–31]. In the era of short videos, cultural and tourism communication has shifted from grand narratives to smaller perspectives focusing on traditional culture, cuisine, celebrations/characteristic activities, and the daily lives of ordinary people [32]. In this context, individual users draw from their own unique perceptions and actively engage in shaping the city's image. From the perspective of Lefebvre's triadic theory, a city's spatial imagery was shown in a combination of physical, mental, and relational spaces effectively created by short videos on TikTok [21]. The shaping of the city image through short videos on Bilibili (a social media platform in China) is the result of the integration and interaction of the objective image, the media image and the audience perception of the city [30]. Social media were discovered to be effective in constructing a spatial image of the city [21].

### *C. City Image and Symbols*

Since Lynch proposed the five-element city image analysis scheme, researchers have commonly used similar survey methods, such as questionnaires and interviews, to investigate the recognition of elements that shape a city's image [4], and people's attitudes and actions toward a city were highly conditioned by that city's image [33, 34]. Lynch focused on only the physical attributes of the urban picture [18, 19] and failed to take into account the subjective dimension [10], ignoring those intangible urban resources. Culture and heritage assets served as vital instruments employed by cities [22], and can be introduced and mobilized by media [35]. Urban symbols originating from distinctive cultural aspects of a city were utilized to create unparalleled spatial imagery, which was vital for promoting tourist cities and help people identify more with this city [21]. Government departments at all levels were found to use their TikTok accounts to promote city images and construct urban symbols [32].

It was proved that data collected from the virtual space can shed light on how the public perceive a physical location in the real world [15]. Also, it was noted that social media's participatory culture altered how we experienced and comprehended heritage [36]. Previous research on social media and urban image often relied on data obtained from a single social media platform, whether it be a Chinese

platform such as Weixin or Xiaohongshu or an international platform like X (formerly Twitter) or TikTok. It is necessary to investigate users beyond more than one social media platform to evaluate their attitudes more comprehensively. From the perspective of social media users' perception, this study analyzes the effectiveness of Nanjing's image communication by examining the exposure of urban symbols across multiple Chinese social media platforms. The findings might be some reference to city planners or social media operation teams. The following two questions are to be addressed in this study:

Research Question 1: What are Nanjing's urban symbols?

Research Question 2: How effective are Chinese social media platforms in the communication of Nanjing's urban symbols?

## III. METHODS

Examining a city's image among the target population is the first step to further implement any media strategies to change that image [2]. This study is set in the three-dimensional framework of space from Lefebvre [37]: The first dimension of physical space, namely nature, the universe; the second dimension of mental space, including logic and formal abstraction; the third dimension of social space. The first space is the objective entity, the second space is the cultural symbol, and the third space is the social practice that connects the former two. Specifically, the social practice of a city transforms intangible, ideological cultural meanings and symbolic representations into social activities within the real urban space, thereby endowing the space with social attributes. This study aims to investigate the second space composed of logical and formal abstractions, i.e., the perceived city image composed of cultural symbols by targeted audience.

The empirical study is based on the city of Nanjing, the capital of China's Jiangsu Province and the national capital of six different dynasties in Chinese history. Nanjing is located in the Yangtze River Delta (YRD) which contributed 24.4% of the national GDP in 2023 [38] and is the most developed region in China [39]. As one of the pre-industrial world's great cities with 6000 years of civilization and an urban history of 2500 years, Nanjing abounds in cultural and architectural heritage and ranks ahead among Chinese cities in terms of economic development and urban construction [40]. Endowed with historical legacy, political standing, and strategic location, Nanjing also serves as a political, economic, and cultural center in YRD [41]—China's rising global city cluster.

Two rounds of questionnaire survey were conducted through convenience and snowball sampling. The first one is used to determine city symbols and the second one is to explore the relationship between symbols and social media platforms. Participants read and accepted a consent document online before completing the online survey. All respondents volunteered to participate in the questionnaire and all participant data were anonymized. For the first survey questionnaire, each participant was provided with CNY 2 in return. For the second survey, each participant was given CNY 1 in return. All statistical analysis was performed using IBM SPSS Statistics version 29.

## IV. RESULT

## A. Selection of City Symbols

Not only can urban symbols be extracted from the city's historically significant geo-cultural heritage, but some folk cultural symbols rooted in daily life can also be chosen [9]. In accordance with the aforementioned principles, 89 Nanjing symbols were initially obtained through literature research from academic databases, recommendations from Chinese mainstream portals (e.g., Sohu), and interviews with local residents, and 71 symbols were kept for the sake of brevity after soliciting viewpoints from volunteers spanning multiple professional domains. These symbols were then examined and determined via the first questionnaire survey conducted from 1 August to 2 August 2024 on Wenjuanxing, an online crowdsourcing platform in China. Each candidate symbol is described in a declarative sentence which is to be evaluated on a five-level Likert scale. The sentence for each symbol is like this: Sun Yat-sen's Mausoleum (the mausoleum of Dr. Sun Yat-sen (1866–1925), the father of the Republic of China) is a symbol of Nanjing. Respondents to the questionnaire choose a number from 1 to 5. The number 1 denotes complete disagreement that the symbol is representative of Nanjing, and the number 5 denotes complete agreement that the symbol is representative of Nanjing. Of the 125 questionnaires received, 26 questionnaires were excluded because the respondents to these questionnaires gave the same rating to each symbol. A total of 99 valid questionnaires were therefore retained. According to the results of this questionnaire survey, only 2 symbols out of 71 got average scores under 3. The rest 69 symbols with high public recognition were kept for the following categorical analysis.

Symbol categorization was conducted by Exploratory Factor Analysis (EFA). The EFA of 69 symbols showed that Kaiser-Meyer-Olkin (KMO) was 0.810 and the Bartlett's Spherical Test results reached a significant level (see Table 1.), suggesting that the data from this experiment are suitable for factor analysis. EFA extracted 14 factors from the 69 symbols (76.319% of total variance explained). The first four factors each contain at least ten symbols. The other 9 factors have at most four symbols each. A majority of factors include symbols of a variety of well-known urban sites including scenic spots, historical or modern landmarks, recreational or educational sites. The distinctions between these sites are unclear as a few tourist attractions are both cultural relics and scenic spots. Moreover, most modern landmarks are also places of interest for tourists as well as locals. Despite the difficulties caused by the multiple attributes of urban symbols, the result of EFA presented a system of city symbols consisting of intangible cultural heritage, historical sites, modern landmarks, food and other features, which laid the groundwork for the follow-up communication analysis.

## B. Symbol Exposure on Social Media

Findings from the first questionnaire indicate that symbols of Nanjing exhibit overlapping functions. As a result, the 14 dimensions derived from factor analysis were consolidated into four distinct categories: city land mark, intangible cultural heritage, specific cultural symbols and delicious food. The scenic spots, historical sites, cultural, educational and recreational sites are covered under the first category.

Symbols listed as intangible cultural heritage belong to the second category. Activities such as the lantern festival, and symbols not classified as intangible heritage (e.g., Nanjing dialect and city flower) are under the third category. Although food-preparing techniques should be covered by intangible cultural heritage, the special foods of Nanjing have been specifically designated as the fourth category for two reasons: First, the results of EFA showed that the only two food symbols clustered under one factor with no other ones; second, regional special foods are a part of the local people's life as well as tourist attractions. In addition to overlapping functions, the other rationale behind the reduced number of categories of factors in the second questionnaire is to lessen respondents' burden and to avoid their boredom. Before the official distribution of the second questionnaire, participants of the test run revealed that they basically got information about different kinds of city symbols from the same social media channels. Therefore, streamlining the categorization of urban symbols remains effective in revealing the multiple ways of accessing information about urban symbols.

Table 1. KMO and Bartlett's Test

KMO Measure of Sampling Adequacy		0.810
Bartlett's Test of Sphericity	Approx. Chi-Square	6147.561
	Degrees of Freedom	2346
	Significance	<.001

In order to investigate the impact of social media on the communication of four categories of urban symbols, the second questionnaire survey through Wenjuanxing was conducted from August 7th to September 16th of 2024. Seven Chinese social media platforms with a wide audience range and high popularity were chosen. This group includes Weixin (domestic version of WeChat, a multifunctional platform for sending instant messages and sharing daily life photos, thoughts and videos), Weibo (a microblog allowing users to post short messages with images, videos or links), Xiaohongshu (also called Red Note or Little Red Book, a lifestyle-focused platform for sharing personal experiences and recommendations on lifestyle topics), Douyin (the domestic version of TikTok, a short-form video-based platform), Kuaishou (also a short-video platform, focusing more on the "real-life" aspect of content creation), Bilibili (a video-sharing platform including a wide variety of content) and Zhihu (a question-and-answer-based platform).

Regarding each category of symbols, the questionnaire respondents utilized a 5-point Likert scale to assess the ease of accessing information related to that category on each of the seven social platform. The 5-point Likert scale symbolized the frequency of using a social platform, where 1 indicated almost never using it, and 5 represented that one consistently used this social platform to access information about this category of symbols. Other factors or covariates, such as age, gender, schooling and place of residence were also considered for the analysis. A total of 304 participants answered the second questionnaire. Of the 304 replies received, 245 replies were valid. Answers with the same IP addresses were deleted due to a suspicion of bonus swiping.

## C. Result of Multinomial Logistic Regression

Categorical data of city symbols were compared using the

multinomial logistic regression model, and results were expressed in odds ratio with 95% confidence interval. A multivariable analysis (models that have two or more outcome or dependent variables) is developed in three stages: the selection of independent variables, covariance diagnostics, and regression analysis.

In the first step, independent variables were selected from the seven social media platforms and the four demographic factors when categorical symbols were treated as dependent variables. The seven social platforms, graded by respondents from 1 to five, were treated as continuous variables and tested through ANOVA. Based on the significance of the F-statistic between groups of ANOVA (see Table 2.), only two independent variables, Weixin and Xiaohongshu, were retained. The F-statistic values of the remaining five independent variables were not significant, thus their relationship with the dependent variable city symbol was not strong. When the independent variable is a categorical variable, it is necessary to use a chi-square test to test whether there is a relationship between the independent variable and the dependent variable. Since none of the chi-square for gender, age, education and district was significant, these four categorical independent factors were excluded from the subsequent regression analysis.

Table 2. ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Weixin	18.441	3	6.147	5.310	0.001
Xiaohongshu	20.542	3	6.847	4.137	0.006

In the second step, covariance diagnostics is conducted to

test the correlation between the selected independent variables themselves in the previous step. Similar to linear regression and binary logistic regression, in unordered multicategorical logistic regression, the correlation of the independent variables should not be too high; if it is too high, multicollinearity might occur and affect the final estimation results. The two independent variables Weixin and Xiaohongshu after ANOVA screening were selected as independent variables, and categorical city symbols were selected as the dependent variables. Based on the covariance diagnostic analysis, both the variance inflation factors (VIF) of Weixin and Xiaohongshu were less than 5 (see Table 3.), so there is no covariance between the two independent variables.

In the third step of multinomial regression analysis, the qualified independent variables chosen from the previous two steps of independent variable screening and covariance diagnosis are treated as covariates. One category of city symbols was set as the reference for the other three categories of dependent variables. The likelihood ratio tests significance of the model fitting information was checked for the suitability of the regression analysis. After the independent variable screening and covariance diagnosis, only 2 of the 9 variables passed the screening test. There was also no covariance between them. These two variables of Weixin and Xiaohongshu were selected as covariates in the multinomial regression. The dependent variable, symbols, had four categories and the last category special food was set as the reference. The likelihood ratio tests significance of the model fitting information was less than 0.001 (see Table 4.), which was an indicator of the suitability of the regression analysis.

Table 3. Coefficients<sup>a</sup>

	Unstandardized B	Coefficients Standard error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics	
						Tolerance	VIF
Constant	2.801	0.151		18.502	<0.001		
Weixin	-0.070	0.034	-0.067	-2.032	0.042	0.926	1.080
Xiaohongshu	-0.008	0.029	-0.010	-0.289	0.773	0.926	1.080

a. Dependent Variable: sign

Table 4. Model fitting information

Model	Model Fitting Criteria -2 Log Likelihood	Likelihood Ratio Tests		
		Chi-Square	df	Sig.
Intercept Only	293.541			
Final	280.254	13.286	6	0.039

The results of a multinomial logistic regression (see Table 5.) displayed the impact of Weixin and Xiaohongshu on the communication of different categories of urban symbols, with “special food” as the reference category. As for landmarks’ communication on WeChat, the odds ratio

(Exp(B)) was 1.200 with a significance level (Sig.) of 0.049, indicating that information about landmarks was 1.2 times as accessible via WeChat as special food. As for cultural symbols’ communication on Xiaohongshu, the odds ratio (Exp(B)) was 0.844 with a significance level of 0.019, indicating that information about cultural symbols was less accessible via Xiaohongshu than special food. WeChat had a significant positive impact on the communication of landmarks but did not significantly affect the communication of intangible cultural heritage or cultural symbols. Xiaohongshu did not significantly impact the communication of landmarks or intangible cultural heritage but had a significant negative impact on the communication of cultural symbols compared to special food.

Table 5. Parameter estimates

Symbol <sup>a</sup>		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
Landmark	Intercept	-0.683	0.423	2.602	1	0.107			
	Wechat	0.182	0.093	3.859	1	0.049	1.200	1.000	1.440
	Xiaohongshu	-0.011	0.076	0.022	1	0.881	0.989	0.851	1.148
Intangible cultural heritage	Intercept	0.424	0.389	1.187	1	0.276			
	Wechat	-0.036	0.087	0.177	1	0.674	0.964	0.813	1.143
	Xiaohongshu	-0.074	0.074	0.980	1	0.322	0.929	0.803	1.075
Cultural symbol	Intercept	1.037	0.376	7.608	1	0.006			
	Wechat	-0.105	0.085	1.527	1	0.217	0.900	0.762	1.064
	Xiaohongshu	-0.170	0.073	5.482	1	0.019	0.844	0.732	0.973

a. The reference category is: special food.

## V. DISCUSSION

The different roles of Weixin and Xiaohongshu in communicating Nanjing's symbols like landmarks and special food can be attributed to their distinct platform characteristics and user demographic profiles.

### A. Platform Characteristics of Weixin and Xiaohongshu

The diverse channels integrated within Weixin transform the platform into an extremely efficient hub for information dissemination. Developed by Tencent Holdings, WeChat won rapid and widespread popularity among Chinese communities globally [42], and has become the most popular mobile application in China today [43]. Weixin is primarily a real-time messaging app that allows users to send and receive text messages, voice messages, videos, pictures, and other types of files instantaneously. It supports group chats and one-on-one communication, making it a versatile platform for both personal and professional use. On top of being a messaging application, Weixin has been augmented with such in-app channels as Friend Circle (i.e., Moments, a space where users share aspects of their daily lives with their contacts), Weixin Official and Video Accounts (run by individuals or organizations aiding content publishing, user interaction, marketing or promotion), Mini Programs and Service Accounts (used in a variety of scenarios including shopping, education, entertainment). Apart from instant messaging and content sharing in Friend Circle, subscribing to Official or Video accounts to receive relevant content or "pushed" messages [44] is another frequent use of Weixin. Content related to city landmarks were usually non-product posts having the qualities of being original, informative, and exact [45]. The efficient dissemination of landmark symbols discovered in this study has corroborated Weixin's significant role in information dissemination, consistent with the findings of previous studies. Regular users can subscribe to "in-app channels" such as official accounts or video accounts, enabling the accounts' functions like content dissemination and audience management [46]. In tandem with media attractiveness and perceived pleasure, information sharing wielded a substantial impact on users' inclination to keep using WeChat [47].

Xiaohongshu's focus on User-Generated Content (UGC) and personal experiences makes it ideal for promoting local life and adventures enhanced by personal testimonials offering authentic insights, visual content of photos and videos, and community engagement assisting in the circulation of information. With the motto of "inspiring lives"

and over 80 million content creators, Xiaohongshu is the most popular visual-oriented social media platform in China [48, 49], and has developed a largely extensive community concentrating on product, travel, and experience reviews [50]. The Xiaohongshu community encourages its users to disseminate knowledge and experiences through sharing "mini-articles ('notes')" [51–53], which are accessed billions of times by their peers on a daily basis [52]. Taking into account elements like comment quality, data accessibility, and involvement in social-issue discussions, Xiaohongshu becomes the most suitable choice [54]. The platform's participatory culture and high engagement levels foster a community-driven approach to content creation and sharing, enhancing the appeal and reach of experiential content like local cuisine, which explains the finding of this study that Xiaohongshu exerted a more effective impact on the distribution of food-related information.

The close-knit social circles established through Weixin make utilitarian social interactions more convenient. Rather than being an app with community-focused features at its core, Weixin is more typically employed as a tool for instant messaging and personal communication [42]. Due to a large user base and users' private networks of known contacts, WeChat is created to aid information sharing and distribution among users' acquaintances [55] and consequently used more for utilitarian social interactions, such as seeking information on city landmarks. Although utilitarian social interactions based on familiar relationships may not fully meet all social needs, they can be effective for simple information-seeking. Moreover, interactions with acquaintances can significantly stimulate users' interest and favorability toward influencer recommendations and brands. After seeing acquaintances engage with such content, over 80% of users will take subsequent actions [56]. The pre-existing social bonds of acquaintance-based Weixin networks facilitate users' acceptance of alternative behaviors of their contacts [57]. Interactive behaviors such as liking, sharing, and commenting are direct manifestations of close-knit social interaction [56].

Xiaohongshu's emphasis on shared interests and hobbies makes it an ideal platform for discovering diverse aspects of life. Food, especially special local cuisine, is often associated with the passions and pastimes of food enthusiasts. When Social interactions which are utilitarian in nature and stem from established familiar connections commonly fail to satisfy individuals' social requirements, lifestyle platforms, which center around shared interests and hobbies and grow in influence, can combat feelings of isolation and offer a virtual

setting where people can communicate their personal affections [58]. Users on Xiaohongshu can either create or join interested chat groups where they post pictures, write detailed reviews, and connect with others who have similar tastes. On Xiaohongshu, there are countless food-exploring (or restaurant hopping) group chats, in which foodies can share their discoveries and reviews of particular types of food or unique regional cuisine. The food-related group chat is not only a virtual space for gourmets to express their affinity for palatable dishes but also an information source that foodies use to guide their offline adventures. Compared with Weixin whose focus may be on general social communication, communities of group chats centering around common interests is more appealing for getting in-depth and personal information about hobbies such as gastronomy.

### B. User Demographic Profiles

First released in 2011, Weixin has become the most popular social media site in China [43, 44, 59], and its combined monthly active accounts of Weixin and WeChat (the overseas version of Weixin) reached 1.402 billion as of March 31, 2025 [60]. Since Weixin boasts the broadest and most diverse user base, it is reasonable to assume Weixin users comply with the portrait of all-network participants in China who span a wide array of age groups with a relatively balanced male-female sex ratio as of March 2025 [61]. A comparative analysis [56] of four mainstream social media channels, namely Weixin Official Accounts, Weixin Video Accounts, Douyin, and Xiaohongshu, found that users were spending more time in consuming Weixin content, Weixin Video Accounts saw the largest influx of new users in the past year, the net increase in the usage time of Weixin Video Accounts was the highest, and the time spent on Weixin Official Accounts remained the most stable. The broad user base, the balanced gender distribution, and the popularity of Weixin Official and Video Accounts combined together renders Weixin an effective platform to spread informational posts about urban symbols.

Xiaohongshu's young, female-dominated [48, 49, 58] and highly participatory [49] user base makes it ideal for promoting city symbols through personal experiences and recommendations. Young females from first- and second-tier cities are the dominant group within the user community. With a gender ratio where for every three males there are seven females, those aged 18–34 form a substantial part of the overall user population [62]. Users demonstrate high levels of engagement, regularly checking updates, liking posts, leaving comments, and generating their own content. Moreover, Xiaohongshu's sharing systems are likely to convert online interaction into enhanced offline activities, such as learning to cook following the shared cooking tutorials or trying the delicacy at a restaurant recommended by influencers, thus closing the divide between digital and real-world communities and boosting social resonance [58].

## VI. CONCLUSION

This study offers one of the first answers to a critical question in the field of city image communication: Which social media platforms are more effective in disseminating urban symbols, and which are less so? The research sheds light on how social media users construct Nanjing's urban

imagery in their mental space within Lefebvre's triadic theoretical framework.

This study has certain limitations. First, the study does not offer any concrete social media strategies for enhancing the visibility of urban symbols. Second, the analysis is confined to a specific city context, which may limit the generalizability of the findings.

Future research could examine how changes in platform algorithms and narrative strategies influence the dissemination of cultural symbols and enhance their visibility among diverse audiences. Additionally, scholars could employ comparative studies of cities within and beyond China to yield valuable cross-cultural insights into urban branding practices.

### CONFLICT OF INTEREST

The authors declare no conflict of interest.

### AUTHOR CONTRIBUTIONS

HYZ and JCZ contributed to the study's conception, data curation, and analysis; HYZ wrote the initial draft; both authors participated in the subsequent editing and revision stages; both authors read and approved the final version of the paper.

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