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Research Article

Communication Strategy of Urban Media Image Based on Global Discretization

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With the advent of the era of global economic integration, more and more cities are involved in the increasingly fierce competition in the form of image dissemination in order to obtain better economic benefits. The choice of media for this city to carry out image communication has become an inevitable choice for the survival and development of the city. However, since the effect of the current urban media image dissemination is not too ideal, in order to promote the dissemination and development of urban media image, this study made use of global discretization, which is widely used, to study the urban media image dissemination strategy. The research results prove that it is very important to combine global discretization and urban media image for development. Because, the combination of the two can improve the dissemination efficiency and effectiveness of the city's media image to the greatest extent, enhance the city's global popularity and competitiveness, and drive a large flow of capital and high-quality talents to the city. In order to obtain greater economic benefits in the wave of global economic integration and to stand out in the increasingly competitive urban environment, a firm foothold is gained in the global economy.

1. Introduction

The global economic integration in recent years has prompted almost all cities to participate in their economic development, thus creating a new economic competition environment and driving the high-speed flow of capital and talents. However, current image dissemination of urban media cannot improve the competitiveness of cities to the greatest extent and meet the needs of urban media communication, and global discretization can solve these problems well. However, there is currently a very lack of research results on global discretization and the transmission of urban media images. Therefore, it is of great importance and urgency in this study to study the dissemination strategies of global discretized urban media image.

Since steganography and cryptography have their own advantages, Hussein et al. embedded important data into overlay digital media by using steganography and used cryptography to encrypt data into a meaningless form [1]. Local brand is a part of city brand research, and it is also a part that should be strengthened in urban planning and city image construction. Siregar aimed to describe the efforts made by the Bogor Municipal Government in building a green city image [2]. To improve imperceptibility, security, and tamper detection performance, Chen et al. proposed a self-embedded watermarking scheme for JPEG compression [3]. Lee et al. proposed a resource reservation scheme for handover control to accommodate mobile multimedia traffic using position estimation and orientation estimation. This scheme adopts a new mobile tracking method based on fuzzy multicriteria decision-making [4]. Since there is no uniform approach to effective advertising-supported strategic planning of new products, Rozumei et al. described the main stages of creating an advertising strategy to achieve the necessary communication effects and obtain positive consumer responses [5]. Since the importance of smaller local community activities has been overlooked in the place branding and events research literature, Walters and Insch aimed to clarify the contribution of community event narratives to place branding [6]. Since a tourist destination needs to develop a development strategy in order to

maintain its existence and bring huge economic benefits in the future, Hillary et al.'s main purpose is to analyze the strategies to maintain the sustainable existence of mangroves [7]. Although many people have studied the urban media image communication strategy, few people have combined it with global discretization. To make up for this lack of research, this study combines the two.

The features in the global discretization are easy to increase or decrease, which facilitates the rapid iteration of the model. In order to dig out the advantages and characteristics of global discretization to the greatest extent, many people have carried out research on this. Since most of the literature on Galoisig discretization relies on global discretization, Girard et al. were aimed at handling Galoisag and decision tree-based supervised classification methods [8]. Zahrouni and Goubet considered the use of a semidiscrete time scheme to discretize the damped forced nonlinear Schrödinger formula in order to provide a discrete infinite-dimensional dynamical system for global discretization time [9]. Grimmonprez et al. worked on inverse problems involving semilinear integro-differential parabolic formulas with unknown memory kernels [10]. The biggest purpose of Tuia et al. research was to provide challenging image analysis opportunities, including multiresolution and multimodal fusion [11]. Galtung and Raynaud defined a kinetic energy and a potential energy so that the principle of static action from Lagrangian mechanics produced a one-dimensional submerged wave formula system as the governing formula [12]. Henning and Peterseim proposed a new normalized gradient flow for the energy inner product eigenvalue problem, where the density of the gradient flow through the flow itself was time dependent [13]. The pooling problem is a global optimization problem in folklore and has been applied in petrochemical refining, wastewater treatment, and mining industries. For this reason, Gupte et al. proposed a new idea to calculate the global optimal dual boundary by solving high-dimensional linear programming [14]. From this point of view, the research results on global discretization have been very rich, but no one realizes that it is of great significance to introduce it into the urban media image communication strategy. Therefore, this study analyzes the urban media image strategy based on global discretization.

The current urban competition pressure is in an unprecedented state. Only by continuously strengthening the dissemination of the urban media image, it can be possible to increase the city's popularity and the economic competition pressure. However, the current urban media image dissemination strategy is difficult to achieve in a short time. In order to meet the needs of the city's economic competition within time, this study has carried out a detailed and in-depth study of the urban media image communication strategy based on global discretization.

2. Methods of Urban Media Image Communication Strategies

In the study of urban media image communication strategy, it is necessary to carry out strategic research from the aspects of communication media, communication content, communication audience, and communication media, so that the research on urban media image communication strategy is more realistic. The specific research method of propagation is described in detail with the algorithm.

2.1. Optimal Control Theory. In the study of urban media image communication strategy, the most optimal control communication strategy and realization of communication indicators are needed [15]. How to optimize the communication strategy of research image is an urgent problem that every city needs to solve. In order to solve this problem, this study applies the optimal control theory and system under global dispersion to its research. The exploitation process is as follows.

For the optimal control problem, the differential formula on $(0, T]$ is needed to define

$$x(t) = f(t, x(t), u(t)). \tag{1}$$

Then, add the initial conditions:

$$x(0) = x_0. \tag{2}$$

Among them, the state vector of urban media image dissemination and the vector that needs to be controlled in the dissemination process are respectively represented.

Then, add the variable to the formula:

$$f = [f_1, \ldots\ldots f_n]^T. \tag{3}$$

All the parameters in the control function are continuously differentiable for the problem of urban media image dissemination. T stands for termination time. $U = \{u_1, \ldots\ldots u_k\}$ is defined. If the parameter conditions of $u(t) \in U$ are added to all $t \in [0, T]$, the urban media image propagation control function u is called feasibility control function, and U is the set of all such feasibility control functions. Assuming that any control switching point $u \in U, N-1$ is the largest possible urban media image communication, then for each $u \in U$, the urban media image communication problem control function will be continuously integrated in each interval $[\tau, \tau]_{i+1}, i = 0, 1, \ldots\ldots, N-1$, and $x(t)$ is obtained in $(0, T)$, which is continuous and piecewise differentiable.

2.2. Large-Scale Global Optimization Problem. The urban media image communication strategy is mainly aimed at different cities. It is not like a small item that can easily ask questions from multiple angles, so as to get the answer to the problem. Therefore, when considering the image communication strategy of urban media, a variety of different types of influencing factors need to be considered [16]. In order to better formulate the urban media image communication strategy from a global perspective, this study uses a large-scale global optimization problem. The specific utilization process is as follows.

Since the large-scale global optimization problem involves multiple dimensions, its optimization involves many complex forms, and the general form of the large-scale global optimization problem is as follows:

$$\begin{cases} \min f(x), \\ s, tx \in \Omega. \end{cases} \tag{4}$$

Among them, $\Omega = \{x \in R^n | l_i \le x_i \le u_i\}$ is the feasible domain of the urban media image communication problem, $x = (x_1, x_2, \ldots\ldots, x_n)$ is an n-dimensional decision variable in the urban media image communication strategy, and $f(x)$ is the objective function of urban media image communication.

The problem to be solved by using the large-scale global optimization problem in this study is that for the urban media image communication strategy problem studied, the dimension of which may be very high. It may be a one-dimensional problem, it may be a multidimensional problem, and it is more likely to be a thousand-dimensional problem. For this reason, it is necessary to find the global optimal solution of the objective function through the corresponding optimization algorithm [17] such as differential evolution algorithm, particle swarm algorithm, and genetic algorithm, when studying the problem of urban media communication strategy. Since the objective function of urban media image dissemination is usually very complex, there may be many local optimal solutions, which increases the difficulty of solving. How to effectively find the global optimal solution of the original problem is still a difficult problem, and it is also the focus of this study.

2.3. Evolutionary Algorithm. The evolutionary algorithm is a new algorithm to solve the global optimization problem [18], and it is also an algorithm that needs to be mainly used when studying the problem of urban media image communication strategy, because its performance is outstanding in the solution process, and it does not depend on the original value in the solution process. It is widely used in many disciplines and has achieved a series of outstanding results, such as function optimization, task scheduling, path planning, character matching, image processing, and teacher scheduling.

When describing the optimization algorithm of the current evolutionary algorithm, it is necessary to study, compare, and analyze the iterative expression of the traditional optimization algorithm. The general expression of the traditional optimization algorithm iteration is as follows:

$$x_{k+1} = x_k + ad_k. \tag{5}$$

Among them, k represents the number of iterations of the traditional optimization algorithm. It can be seen from this iterative formula that the traditional optimization algorithm depends on a descending direction d_k and the search step a in the solution process. A descending direction of the objective function is found at the current point through the first derivative and second derivative, a search step size is found through a one-dimensional optimization method, and then, the descending direction is followed to find the next point that is better than the current point, until the solution meets the accuracy requirements. This method is effective when the dimension of the objective function is low. The function itself is relatively simple and derivable, and there is no local optimal solution, but for high-dimensional complex problems, when there are multiple local minimum solutions. This method can only find one local solution. The optimal solution cannot be found in the global optimal solution. The evolutionary algorithm can search for the optimal solution of the problem by simulating the natural biological evolution law, which is an intelligent optimization method. The evolutionary algorithm evolves as a unit as a whole, with hidden parallelism, and each individual in the population may be an optimal solution. Individuals in the evolutionary algorithm population go through the process of crossover mutation selection, which makes the population evolve and update continuously, so that better individuals are preserved in the population, and individuals with poor adaptability are discarded. From a mathematical point of view, it is equivalent to having multiple individuals searching the entire feasible region in parallel, and the objective function is not required to have the properties of derivation, differentiability, and continuity. Each individual is evaluated by fitness, so the global optimal solution can generally be found.

The general expression of its evolutionary algorithm is as follows:

$$x_{k+1} = x_k + b_k. \tag{6}$$

Among them, b_k represents the feasibility of the evolutionary algorithm in multiple areas in the urban media image dissemination problem. At the same time, it can be seen from this formula that the evolutionary algorithm does not need to rely on a descending direction in the solution process like the traditional iterative algorithm and the search step size to obtain the global optimal solution.

2.4. Genetic Algorithm. The genetic algorithm is a computational model of the biological evolution process that simulates the natural selection and genetic mechanism of Darwin's theory of biological evolution [19]. It is a method to search for the optimal solution by simulating the natural evolution process. The variable is represented as an individual in the genetic space through a certain coding method. It is the structural data of the genotype string, and the objective function value is converted into the fitness value. It is used to evaluate the individual's pros and cons and serve as the basis for genetic operations. Therefore, the rules for individuals in the group to migrate to the optimal solution are random, and the specific process is shown in Figure 1.

As can be seen from Figure 1, efficient directed searches were performed by genetic operations rather than undirected searches performed by general random search methods. The effect of genetic operation is closely related to the operation probability taken by the three genetic operators of selection, crossover and mutation, encoding method, population size, initial population, and the setting of fitness function. The operation of selecting the superior individuals from the group and eliminating the inferior individuals is called selection. The selection operator is sometimes called the regeneration operator. The core function of genetic algorithm is the crossover operator of

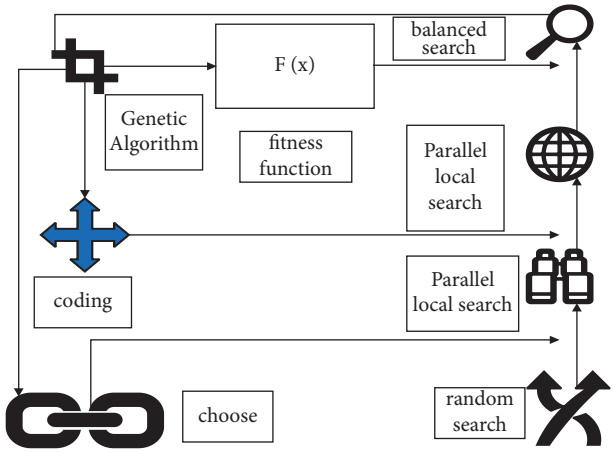

Figure 1: Balanced search process in genetic algorithm.

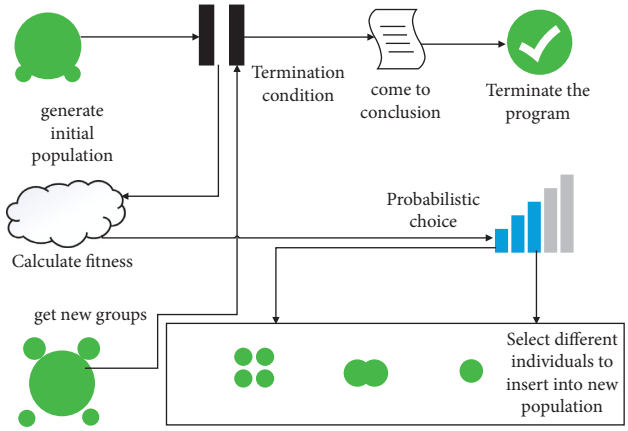

Figure 2: The specific steps of the genetic algorithm.

genetic operation. The so-called crossover refers to the operation of replacing and recombining part of the structure of the two parent bodies to generate a new individual. Through crossover, the search ability of genetic algorithm can be improved by leaps and bounds. The basic content of the mutation operator is to change the gene values at some loci of individual strings in the population. There are two purposes for genetic algorithm to introduce mutation: one is to make genetic algorithm have local random search ability. Another is to make the genetic algorithm maintain the diversity of the population to prevent the phenomenon of immature convergence. At this time, the convergence probability should take a larger value. In the genetic algorithm, the crossover operator is used as the main operator because of its global search ability, and the mutation operator is used as the auxiliary operator because of its local search ability. The genetic algorithm has the ability to balance the global and local search through the operations of crossover and mutation.

In order to better use the genetic algorithm in the urban media image dissemination strategy, this study analyzes the specific steps of the genetic algorithm to solve the problem in detail [20], and the specific steps are shown in Figure 2.

As can be seen from Figure 2, the solving steps of the genetic algorithm are divided into seven steps. *Step 1*. An encoding strategy needs to be selected to convert the parameter set (feasible solution set) into the chromosome structure space; set the population size to 50, the crossover probability to 1, and the mutation probability to 0.06. *Step 2*. Randomly generate the initial population $P(K)$, $K = 0$, that is, the initial population is $P(0)$. *Step 3*. Define the fitness function: $F_i = (1 + \varepsilon)\ddot{g}_0 - \ddot{g}_i$, of which $\ddot{g}_0$ records the largest indicator function value, and 2 is the indicator function of the ith individual. *Step 4*. Select an action. Calculate the sum of the fitness of all individuals in the group and the relative fitness of each individual, select the individual with a large fitness value into the population, eliminate the individual with a small fitness value, add the individual with the largest fitness value to the population, and get a population with the same size as the original population $P(0)$. *Step 5 (Crossover Operation)*. On the condition that the crossover probability is equal to 1, two fathers are selected from the selected population, and two positions are randomly selected on the genetic string to exchange the genetic string of this position. *Step 6* (*Mutation Operation)*. On the condition that the mutation probability is equal to 0.06, a position on the genetic string of the individual is selected for mutation. *Step 7 (Termination Criteria)*. The number of iterations is set equal to 500. If the initial population is less than 500, add one to the initial population and jump back to the fourth step. If the initial population is greater than 500, the algorithm is terminated. Take the best individual in the current group as the optimal output of the problem.

3. Strategy and Method of Urban Media Image Communication

Literature Research Methods. After reading a large number of documents on global discretization, urban marketing, media communication and communication, the data collection, and arrangement of relevant documents are completed, so as to continuously supplement relevant academic knowledge and lay a solid foundation for the experimental research of this study.

Empirical Research Method. The empirical research method is to recognize objective phenomena and provide people with a real, useful, definite, and accurate knowledge research method, and its focus is what the research phenomenon itself is. In the research of urban media image communication strategy, this study focuses on empirical research, because the research on urban media image communication is an empirical problem. Due to the characteristics of the research object, a large number of examples are needed in the research process, and it is based on facts.

Case Analysis Method. In the study of urban media image communication strategy, in addition to collecting and sorting out relevant data, it is necessary to further compare and prove the research with specific cases in order to put forward specific viewpoints and countermeasures from the actual situation.

Data Source Method. The main research content of this study is the urban media image communication strategy based on global discretization, but a city does not exist alone, and the media communication image in each city is not single, so the image communication strategy is based on global discretization. It is not studied from one perspective. For this reason, this study analyzes different urban image communication strategies together, so as to obtain specific experimental data. The strategies are named as strategy 1, strategy 2, strategy 3, strategy 4, and strategy 5, and the different cities are named as city 1, city 2, city 3, city 4, and city 5, of which strategy 5 is based on global discretization in this study.

Data Analysis Method. Only by analyzing the collected and sorted data, effective urban media image communication strategies can be fundamentally put forward and provide a certain data basis for the development of this study.

4. Simulation Experiment of Urban Media Image Communication Strategies

4.1. Communication Effects of Different Cities on Different Media. In order to occupy an important position in the global economic integration, many cities are constantly enhancing their competitiveness, and the key to these cities to enhance their competitiveness is to use different media to improve their international status and economic competitiveness. To better understand the difference between the different media image communication effects used by these cities, this study conducts a detailed study on the communication effects of different cities on different media. The specific research data is shown in Figure 3.

As can be seen from Figure 3, the media used in different cities are roughly divided into seven categories, including radio, newspapers and periodicals, outdoor advertising, online media, film and television, games, and provincial TV. In terms of broadcast media, the image communication effect of city 3 is relatively poor among all cities that use advertising media, indicating that the image of city 3 is not suitable for broadcasting. In terms of newspapers and periodicals, the image dissemination effect of city 1 and city 5 is the lowest compared with other cities, indicating that only the images of city 2, city 3, and city 4 are more suitable for dissemination through newspapers and periodicals. In terms of outdoor advertising media, with the exception of city 5, where the city image communication effect is around 9 points, the image communication effect of other cities is only around 8 points, indicating that the communication medium of outdoor advertising is not suitable for all cities to spread their own images. In terms of online media, the image dissemination effects of these cities are similar, with scores ranging from 8 to 9, indicating that most cities are more suitable for choosing online media for their own image dissemination, because through the Internet, the communication effect of the media is better. In terms of film and television media, only city 2 has the worst image dissemination effect, while the image dissemination effect of other cities is above 8 points, indicating that only individual cities are not suitable for choosing film and television media to disseminate their city image. In terms of game media, only city 1 has the best image communication effect, while the communication effects of other cities are mediocre, indicating that the communication strategy of game media is only suitable for fewer cities. In terms of the provincial and Taiwan satellite TV media, the image dissemination effect of all cities is relatively good, indicating that the provincial and Taiwan satellite TV's communication media are very suitable for disseminating the image of the city. On the whole, when formulating urban media image dissemination strategies, it is more suitable to choose online media and provincial TV stations to disseminate images.

The effect of city image communication under different strategies.

Due to the influence of various geographical factors, different cities have their own image communication strategies. In order to better understand the communication effects of image communication strategies between different cities, this study conducts a detailed study on the urban image communication effects under different strategies and its specific propagation effect data are shown in Figure 4.

As can be seen from Figure 4, the detailed research on the effect of urban image dissemination under different strategies is mainly carried out from six parts: natural scenery, historical culture, food culture, architectural culture, custom culture, and fashion business. In the part of natural scenery, the urban image communication effect of strategy 1 and strategy 3 is the worst, which is far less than the other three strategies, indicating that strategy 1 and strategy 3 are not suitable for natural scenery. In the section of history and humanities, except that the image communication effect of strategy 1 is below 5.5, the communication effects of the other four strategies are all above 6.5, indicating that strategy 1 is less suitable than other urban media image communication strategies. It is used to spread the history and culture of the city. In the part of food culture, the image communication effect of strategy 2, strategy 4, and strategy 5 is the lowest among all communication strategies, which shows that these three city image dissemination strategies are more suitable for disseminating the city's food culture image. In the architectural culture part, the urban image dissemination effect of strategy 2 and strategy 3 is about 5.7 points, which are the lowest two strategies compared with other urban media communication strategies. Strategy 1, strategy 4, and strategy 5 were selected so that the best effect would be achieved when disseminating architectural culture. In the part of customs and culture, the communication effects of strategy 1 and strategy 4 are relatively close, and they are all around 8 points, indicating that strategy 1 and strategy 4 are more suitable to choose strategy 1 and strategy 4 when disseminating the customs and culture image of the city. In the fashion business part, the score of strategy 5 is about 0.5 points lower than that of strategy 4, indicating that the communication effect of strategy 5 in fashion business image needs to be strengthened. On the whole, in addition to the fashionable business image, the urban image communication effect of strategy 5 is the best.

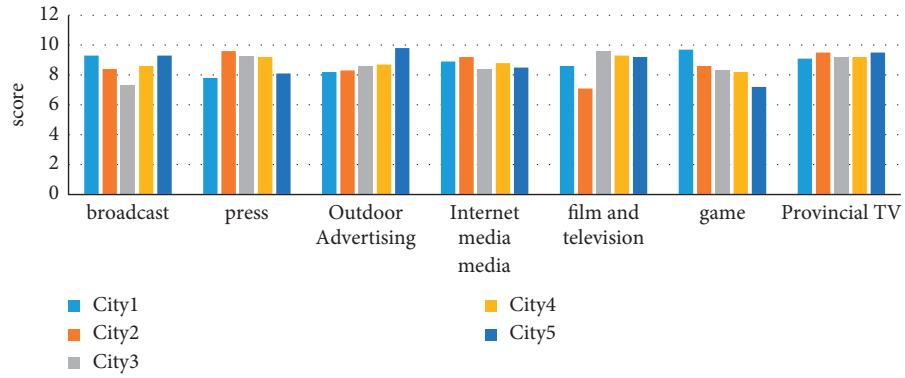

Figure 3: Communication effects of different cities on different media.

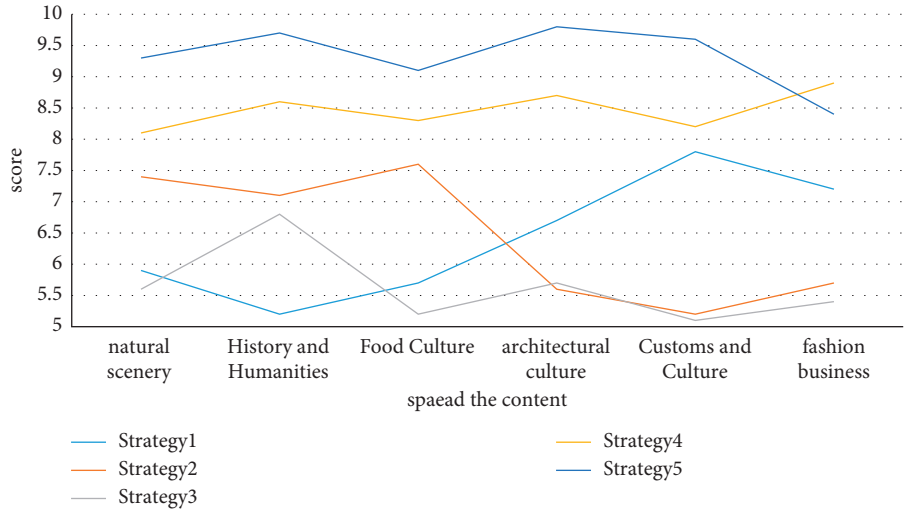

Figure 4: The effect of city image communication under different strategies.

4.2. Comparative Analysis of the Application Effects of Different Communication Strategies. After a city chooses a good image communication strategy, it will be applied to real life. The application of each communication strategy will bring different effects and effects. In order to better understand the application effect of different communication strategies, application effects of different communication strategies are compared and analyzed in this study, and the specific data are shown in Figure 5.

As can be seen from Figure 5, when comparing and analyzing the application effects of different communication strategies, the comparison and analysis are mainly carried out from six aspects: belonging, identity, interest, understanding, popularity, and reputation. The sense of belonging and identity is mainly aimed at the audience inside the city, and the degree of interest and understanding is aimed at the audience outside the city. In terms of sense of belonging, strategy 2 has the lowest application effect among all urban media image communication strategies, indicating that when cities apply strategy 2, it is difficult to enhance the sense of belonging of the audience within the city and make them highly integrated with the city in space and region. In terms of sense of identity, the application effect of strategy 5 is the highest compared with other urban image communication strategies, indicating that the use of communication strategy 5 in a city can enhance the sense of pride and responsibility of the audience within the city and to a certain extent promote the city's sense of responsibility. In terms of interest, the application effect of strategy 3, strategy 4, and strategy 5 is much higher than that of strategy 1 and strategy 2, indicating that the city can better arouse the interest and curiosity of the audience outside the city when using these three strategies, showing the city's style. In terms of understanding, the application effects of strategy 1 to strategy 5 are continuously increasing, the effect of strategy 1 is the lowest, and the effect of strategy 5 is the best, indicating that it is difficult for cities to improve the external environment when applying strategy 1 to a certain extent. The audience knows and loves the city. In terms of popularity, the application effects of strategy 1, strategy 2, and strategy 3 are all comparable and consistent, indicating that no matter which of the three strategies a city uses, and it is difficult to enhance the city's popularity. In terms of reputation, the application effect of strategy 4 is the highest among all image

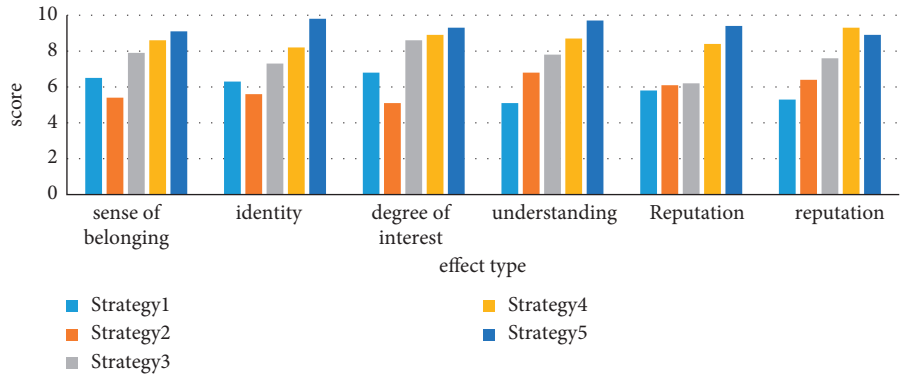

Figure 5: Comparative analysis of the application effects of different communication strategies.

communication strategies, indicating that cities can use strategy 4 to improve the city's reputation. On the whole, strategy 5 has better application effects.

4.3. Comparison and Analysis of Different Strategies. Different urban media communication strategies have different advantages and disadvantages. Only by rationally planning the communication strategies of the city, the good communication of the city image can be promoted. In order to better understand the differences and advantages between different communication strategies, this study compares and analyzes different strategies. The specific data are shown in Figure 6.

When comparing and analyzing different strategies, we mainly study from seven aspects: communication goals, coherence, consistency, audience needs, competitiveness, audience segmentation, and clear positioning. It can be seen from the figure that in terms of communication goals, except for strategy 4, which has a score of 9 points or more, the communication goals of the other four strategies are not clear, which shows that the city image is easy to be approximated in these four communication strategies. There is a problem of image dislocation. In terms of coherence, the scores of strategy 2, strategy 3, and strategy 5 are the lowest among all strategies, and the score values are all below 7 points, which is far lower than the other two strategies, indicating that these three strategies are difficult to make urban media image dissemination to maintain coherence. In terms of consistency, strategy 3 and strategy 5 have the lowest scores, which are far inferior to the other three strategies, indicating that only when strategy 1, strategy 2, and strategy 5 are used in the media image of the city, it is not easy to cause propagation bias. In terms of audience demand, the scores of strategy 4 and strategy 5 are the highest compared to other aspects, indicating that the media image of the city can clearly understand the audience demand and improve the communication effect of the image when using these two strategies. In terms of competitiveness, the scores of strategy 2 and strategy 4 are much higher than other centralized communication strategies, indicating that if the three strategies of strategy 1, strategy 3, and strategy 5 are used in the media image of the city, it will be difficult to improve competitive pressures in cities. In terms of audience segmentation, the scores of strategy 4 and strategy 5 are both above 8, indicating that the media image of a city can easily spread the media image to different audiences by using these two strategies. In terms of clear positioning, strategy 1 and strategy 4 have the highest scores, indicating that these two strategies can meet the needs of communication to the greatest extent during communication. On the whole, strategy 5 is relatively poor in terms of audience demand and segmentation and needs continuous improvement.

4.4. Audience Communication Effects under Different Strategies. Communication audience is one of the four main subjects of urban media image communication. Only by grasping the needs of communication audiences, the effect of urban media image communication can be stronger. However, due to different image communication strategies, different communication audiences are also targeted. In order to better study the urban media image communication strategy, this study conducts a detailed study on the audience communication effect under different strategies, and the specific data are shown in Figure 7.

As can be seen from Figure 7, the communication audiences mainly include seven aspects: radio audiences, TV audiences, Internet audiences, female audiences, male audiences, general audiences, and special audiences. In terms of radio listeners, the communication effect of strategy 2 and strategy 4 is relatively low, because the scores of these two strategies are only below 8 points, which also shows that these two communication strategies are difficult to target radio listeners. In terms of TV audience, the scores of strategy 4 and strategy 5 are basically above 8.1 points, indicating that the city's media image can make good use of these two strategies to improve the spread of TV audiences. In terms of online audiences, the communication effects of strategy 1, strategy 2, and strategy 3 are generally the same, but they are still slightly lower than the other two communication strategies, indicating that these communication strategies are still very suitable for spreading urban media images. Just the effect is not the same. For both female and male audiences, strategy 5 has the highest communication effect, indicating that strategy is the most suitable strategy for disseminating the city's image for both female and male audiences. In terms of the general audience, the

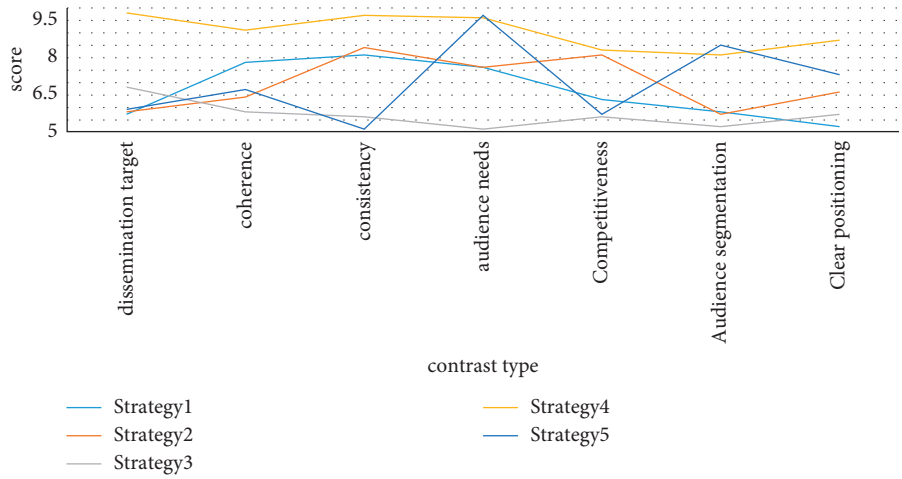

Figure 6: Comparison and analysis between different strategies.

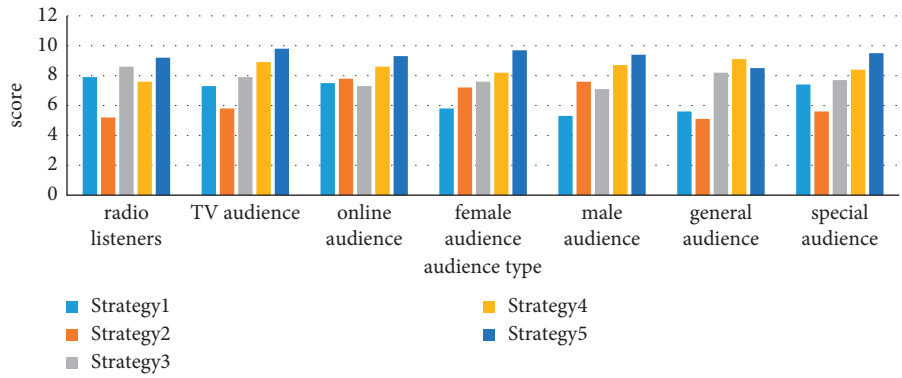

Figure 7: Audience communication effect under different strategies.

communication effects of strategy 1 and strategy 2 are obviously inferior to the other two, indicating that it is best not to use these two strategies when a city wants to communicate its city image to the general audience. In terms of special audiences, the communication effect of strategy 5 is the highest among all communication strategies, indicating that strategy 5 is very suitable for the communication of urban media images for special audiences. Overall, strategy 5 is the most suitable for disseminating urban media images to different audiences.

4.5. Image Dissemination Effect before and after Global Discretization. Since the current city uses a variety of communication strategies to spread its own image, and different strategies have their own advantages and disadvantages, in order to more intuitively and clearly show the actual effect of the urban media image communication strategy based on global discretization, this study conducts a detailed study on the image communication effect before and after the use of global discretization. The specific image communication effect data are shown in Figure 8.

As can be seen from Figure 8, this study mainly studies the effect of image communication before and after the use of global discretization from nine aspects: environmental image, cultural image, historical image, custom image,

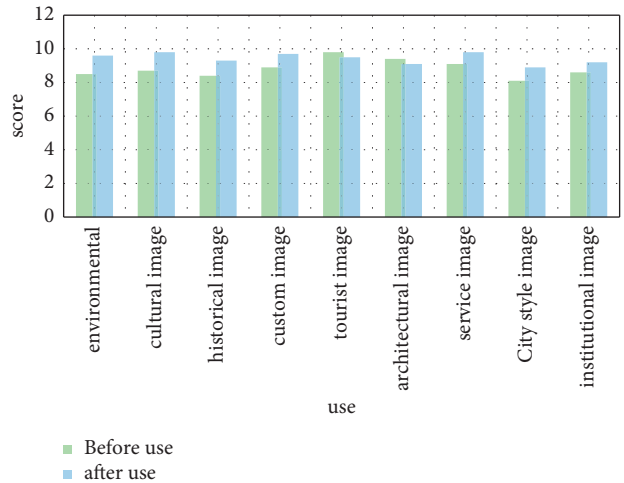

Figure 8: Image propagation effect before and after global discretization.

tourism image, architectural image, service image, city style image, and institutional image. In terms of environmental image and cultural image, the dissemination effect of urban media image before using global discretization theory is better than that without using global discretization. In terms

of historical image and custom image, the effect of urban media communication without the use of the global discretization theory is far lower than that of the urban media image after use. In terms of tourism image and architectural image, the dissemination effect of urban media image without using global discretization is higher than that after using it, indicating that the image dissemination strategy using global discretization theory is not suitable for disseminating urban tourism. In terms of service image and city style image, the effect of urban media image dissemination without using the global discretization theory is obviously not as good as the urban image dissemination strategy after using it. In the aspect of institutional image, the dissemination effect of using the global discretized urban media image is obviously better than that without using the previous image dissemination effect.

On the whole, the dissemination strategy of urban media image after using the global discretization theory is better than the image dissemination effect without using it. Therefore, the research on urban media image dissemination strategy based on global discretization in this study is of great importance.

5. Conclusion

With the rapid development of global economic integration, the strategy of formulating media image communication strategies has become a common consensus in most cities. Since the image dissemination of urban media is one of the important mitigations for urban image dissemination, the governments of many cities also attach great importance to the innovation and development of urban image dissemination strategies, and many scholars are also very rich in theoretical research on urban media image communication, but there are still many deficiencies in the current urban media image communication strategy. In order to promote the development of urban media image and solve the problems existing in the process of urban media image dissemination, this study conducted a detailed study on the urban media image dissemination strategy based on global discretization. In order to carry out the writing and experiment of this study smoothly, this study also used different algorithms in the process of communication strategy, so as to provide specific data and theoretical support for this study. The research is more in line with the reality. This study also discussed the communication effects of different cities on different media, the city image communication effects under different strategies, the application effects of different communication strategies, the communication effects between different strategies, the audience communication effects under different strategies, and the image before and after the global discrete utilization in detail in order to obtain specific experimental data. Of course, there are still some deficiencies in the writing process of this article, which will be continuously improved in the future development.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The author declares that there are no conflicts of interest.

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