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Retraction

Retracted: Coordinated Development of Smart City and Regional Industrial Economy under the Background of Internet of Things

Mobile Information Systems

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

(1) Discrepancies in scope

(2) Discrepancies in the description of the research reported

(3) Discrepancies between the availability of data and the research described

(4) Inappropriate citations

(5) Incoherent, meaningless and/or irrelevant content included in the article

(6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

[1] L. Chen, "Coordinated Development of Smart City and Regional Industrial Economy under the Background of Internet of Things," *Mobile Information Systems*, vol. 2022, Article ID 6986090, 8 pages, 2022.

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Research Article

Coordinated Development of Smart City and Regional Industrial Economy under the Background of Internet of Things

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The development of wireless communication and the Internet of Things has promoted the construction of smart cities and is the technical basis for the construction of smart cities. The influence of regional economic development level on smart city construction cannot be ignored, and it constitutes the external environment of smart city construction. The combination of the two will play a driving role in the construction of smart cities. Therefore, the planning and construction of smart cities must be coordinated with the realization of the two. This paper adopts a combination of literature analysis and field investigation to analyze the decoupling between smart city construction and regional economic development, conduct research on relevant cities, and combine the current situation of smart city construction to collect the problems encountered in smart city construction and regional economic development. Through analysis, it provides suggestions for the development of smart cities and regional economic development. The survey results show that in the process of smart city construction and regional industrial economic development in the context of the Internet of Things, information security and lack of talent are the most prominent problems. Among the relevant suggestions on these issues, the proportion of talent introduction is about 45%, and the proportion of rational planning of industrial structure is about 28%. Based on the experience of existing research results, this study uses optimization algorithms to make the impact of various factors more specific, which is helpful for each region to make scientific planning based on its own actual situation.

1. Introduction

The development of IoT technology has brought great changes to people's way of life and social development. Smart city construction has become an important concept of urban development [1, 2]. In the process of exploration, scholars put forward the concept of smart city development based on innovation and green, in order to improve the sustainable development ability of the city [3, 4]. The current smart city construction process is mainly divided into the following nodes: some problems are analyzed in the current urban economic and social development [5, 6], further, the work of the highest technical level needs is designed to strengthen scientific and technological innovation, the five mechanisms are improved, and the corresponding service platform is established [7–10]. How to carry out follow-up services to ensure the sustainability of smart city construction [11–15].

In the research of smart city construction and regional industrial economic development under the background of wireless communication and Internet of Things, many scholars' discussions are very constructive. For example, some scholars pointed out that the relationship between IoT and smart city is not one-way, but highly interactive [16–18]. Some experts emphasize the relationship between different systems in a city. The interconnection between them facilitates better data exchange and exchange between heterogeneous agents [19, 20]. In Ellen Klein G's research on smart sensors, it is mentioned that smart sensors participate in the monitoring of citizens, which will help decision-making, improve the legitimacy and quality of decision-making, and achieve better results in terms of environmental quality [21]. It can be seen that foreign scholars have conducted research on the methods and approaches of smart city construction. Chinese scholars also highly affirmed the interaction

between the Internet of Things and smart cities [22–25]. In the macro field, the state has formulated the "New Smart City Evaluation Indicators (2016)", and a large number of regions across the country have participated in the indicator evaluation [26]. Until 2019, according to the original evaluation system, it was revised to "New Smart City Evaluation Indicators (2018)", pointing out that the smart city is the concentrated embodiment of the Internet of Things in the field of social development, and it is also an important test of the comprehensive development level of the Internet of Things technology [27]. In turn, the development of smart cities will inevitably generate new demands due to the integration of multiple fields [22]. This is also the development direction of the practical application of IoT technology [28–30]. Some researchers also suggest that the development of smart cities in China should not be rushed. After all, IoT technology is still far from cities [31–36]. Some have put forward suggestions for current local problems, such as the "information island" phenomenon proposed by Guo, and the "information resource" waste problem proposed by Wang et al. [37–39], all of which constitute a serious obstacle to the construction and development of smart cities in my country [40–42].

Taking the important foothold of smart city construction as the research object, this paper makes an in-depth analysis of the current decoupling between smart city construction and regional economic development through a combination of literature analysis and field investigation. The actual construction capacity of the project puts forward certain forward-looking development suggestions. The survey also uses the smart city entropy evaluation algorithm to process the economic data of the smart city to improve the accuracy of the evaluation [43, 44]. The advantage of the method in this paper is that the efficiency and accuracy of data processing are improved through the entropy evaluation algorithm, thereby effectively solving the problem of excessive data volume in smart cities.

2. Research Content and Methods

2.1. Research Content

2.1.1. Research Content and Objectives. The development of information technology has brought new ideas to urban development. The Internet of Things system was created with the help of information technology. It can greatly realize information sharing and improve the government's overall work efficiency and service functions. The main content of this research is how to better promote the construction of smart cities and even the development of regional industrial economy in the context of wireless communication and the Internet of Things. In recent years, the construction of smart cities has been frequently launched in various parts of our country. Some cities really combine their own needs to facilitate service work and people's lives, while some cities have no name and waste funds. How to evaluate the results of smart city construction more scientifically and accurately, and how to use the construction of anticipation models to make the construction of smart cities have clearer goals, thereby reducing unnecessary economic losses, is the main goal of this research.

2.1.2. The Focus and Difficulty of Research. This article focuses on the field of the integration of smart city construction and the development level of the Internet of Things and proposes that only by fully combining the existing technical conditions, the construction of smart cities can truly achieve the goal of convenience and service to the people. The difficulty of the research on this subject lies in the different specific situations in different regions, and the development level of the Internet of Things also varies greatly. Under such a background, there are bound to be great differences in the conception and implementation steps of smart cities in various regions. How to evaluate the pros and cons of these strategies more scientifically. Therefore, for this research, the difficulty lies in how to determine the smart city algorithm. After careful consideration and multiple calculations, the research decided to adopt the entropy calculation method for simulation calculation, and the fluency of the smart city construction system was used as the main criterion for the level of science. With the aid of algorithms, the various plans or methods for smart city construction are assigned values, and the objective gaps in the economic strength and technical strength of various regions are minimized as much as possible. After determining the scientific evaluation model, the study summarized and analyzed the main problems existing in the construction of smart cities in my country and puts forward perfect suggestions for specific situations.

2.1.3. Research Framework. The research starts with a background introduction to the impact of smart city construction and regional industrial economic development in the context of wireless communication and the Internet of Things and extracts the key elements of smart city construction from the concept and practice of building smart cities with the help of Internet of Things technology in various parts of my country. We use this as the basis for determining the evaluation algorithm. Then, according to the calculation results, we sort out the main problems in my country's smart city construction and regional industrial economic development and analyze the existing problems in terms of scientific cognition, technological innovation, guarantee mechanism, and talent training, and based on the work experience, we summarize and put forward ideas and suggestions to solve the problem.

As shown in Figure 1, the research framework of this paper can be clearly seen.

2.2. Research Method. (1) Algorithms for smart city evaluation entropy are a measure of the degree of disorder in the system. It is in inverse proportion to the order of the system. In other words, the higher the value of entropy, the stronger the chaos of the system, the more difficult it is to extract valid data from it, and the worse the authenticity and scientificity of the data. The entropy method of system characteristics is

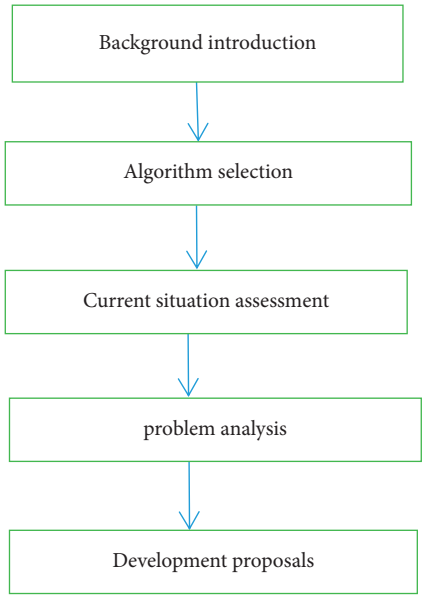

Figure 1: Research framework.

based on this inverse proportional relationship to determine the degree of influence of various elements on the system, so as to determine the weight of the elements4. The evaluation procedure of the entropy method is as follows.

Data standardization processing is performed according to the following formulas:

$$F'_{\alpha\beta} = \frac{F_\alpha - F_{\min}}{F_{\max} - F_{\min}}, \quad (1)$$

$$F'_{\alpha\beta} = \frac{F_{\max} - F_\beta}{F_{\max} - F_{\min}}. \quad (2)$$

(2) Investigation on smart city construction and regional industrial economic development under the background of Internet of Things.

2.2.1. Purpose of the Investigation. Through the investigation of three representative smart cities as examples, it mainly investigates the problems encountered in the construction process, and relevant suggestions are given. Through the analysis of the results, some suggestions are provided for the construction of smart cities and the development of the regional industrial economy.

2.2.2. Number of Questionnaires. According to the minimum sample size formula in statistics, the author sets the confidence level of the questionnaire to 80%, and the allowable error does not exceed 8%.

2.2.3. Data Source. Randomly 3 representative smart cities across the country are selected to conduct a questionnaire survey. According to the minimum sample size, the number of questionnaires distributed in the 3 cities is 300, 400, and 500, and the 3 cities are, respectively, denoted as City A, City B, and City C. The number of questionnaires returned was 387, 459, and 574, respectively, as shown in Table 1.

2.3. The Impact of Wireless Communication and IOT on Smart Cities

2.3.1. The Impact of the Internet of Things on the Transportation Construction of Smart Cities. In recent years, my country's urbanization has developed rapidly, and all aspects of urban infrastructure and public services are facing great pressure. Although road network reconstruction projects are in full swing, and urban arterial roads continue to widen, congestion is particularly noticeable in large cities. In addition to this reason, the number of cars in big cities is increasing rapidly, the number of nonmotorized vehicles is huge, and some citizens do not comply with traffic. The urban transportation network design is backward, and urban public departments are difficult to integrate efficiently when carrying out their own work [45, 46]. These are also key issues that have led to a rapid increase in urban traffic pressure. The deployment of traffic resources through the Internet of Things can realize the efficient use of existing traffic resources, thereby effectively alleviating the city's traffic congestion. When the Internet of Things covers the entire city, real-time monitoring and real-time feedback on the status of each main lane can minimize traffic congestion. Combined with the urban safety guarantee system, the traffic congestion caused by road traffic accidents can be dealt with quickly and timely, and the city conditions can be greatly improved.

As shown in Figure 2, combined with the urban safety guarantee system, the traffic congestion caused by road traffic accidents can be dealt with quickly and timely, and the city conditions can be greatly improved.

2.3.2. The Impact of the Internet of Things on the Municipal Construction of Smart Cities. At this stage, the main direction of my country's smart city construction is to make municipal construction planning more scientific and convenient. In the original smart city plan, how to intelligently coordinate the government, enterprises, and the public to form a common force to promote city construction is the primary problem to be solved when building a smart city. The development of the Internet of Things technology provides strong technical support for the realization of this idea. On this basis, urban public service departments can not only implement cloud management of various services but also achieve efficient integration of urban resources [47]. In the background of the Internet of Things, it is possible to build an infrastructure and security monitoring system covering the entire city. The network is extended to a sufficient coverage area, and the sensor monitoring node can monitor every corner of the city, making the city's security level unprecedentedly improved, as shown in Figure 3.

As shown in Figure 3, the impact on the municipal construction of smart cities, it is mainly reflected in three points, namely scientific municipal planning, integrate city resources, and improve city safety.

Table 1: Summary of the distribution and recovery of questionnaires.

Selected city code	Number of questionnaires issued	Number of questionnaires returned	Recovery rate (%)
A	400	387	96.75
B	500	459	91.8
C	600	574	95.67

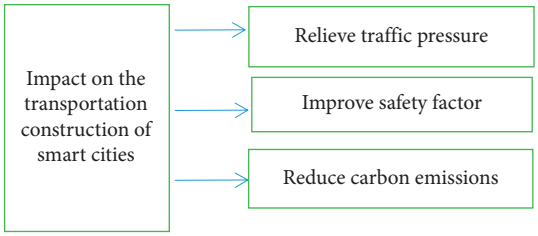

Figure 2: Impact on the transportation construction of smart cities.

2.3.3. The Impact of the Internet of Things on the Medical Construction of Smart Cities. As shown in Figure 4, the important reason for the increasing population of my country's big cities is that they have medical resources that are unmatched by towns and cities. The ever-increasing number of doctors keeps increasing the pressure on medical resources in my country's big cities. With the support of IoT technology, this pressure is expected to be alleviated. And citizens will enjoy high-quality medical services easily and quickly.

(1) The Internet of Things can monitor the patient's condition in real time. Sensors will detect different conditions that can be worn on different patients and then connected to the Internet of Things inside the hospital through a wireless connection, so that doctors can monitor the patient's condition in real time [47]. In this way, not only can the patient's condition be dynamically monitored but also therapeutic measures can be applied for the first time.

(2) The Internet of Things can exchange information about patients' diseases. On the basis of the concept of Internet of Things information sharing, patient information can break the limits of the interests of each hospital within the scope permitted by law and exchange and share among the hospitals where the patient is treated, which can not only reduce the economic burden of patients but also provide a useful reference for doctors to formulate treatment plans [48].

As shown in Figure 4, the impact on the municipal construction of smart cities, it is mainly reflected in two points: monitor the patient's condition in real time and exchange information about the patient's disease.

3. Results and Discussion

3.1. Data Analysis

3.1.1. Classify and Summarize the Problems Encountered in the Construction of Smart Cities. It can be seen from Figure 5 that in the process of smart city construction and regional industrial economic development in the

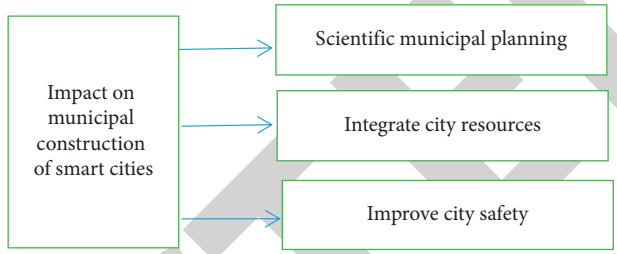

Figure 3: Impact on the municipal construction of smart cities.

background of the Internet of Things, the biggest problem encountered is information security, which accounts for about 43%. Subsequently, the lack of relevant talents accounts for information security, and the ratio is about 32%.

3.1.2. Related Suggestions Are Given. It can be seen from Table 2 that the introduction of talents accounted for the largest proportion of relevant suggestions, accounting for 46%, and then rational planning of industrial structure, accounting for about 29%.

3.2. Results

3.2.1. Insufficient Understanding of Smart Cities. Some cities are still at the stage of hearsay about "smart cities". Although they have also put forward specific development goals, they have not yet formulated specific plans on this basis, and government agencies have not issued relevant policy documents. There is a lack of core support for the smart city to be developed, the experience and model of other cities are completely copied, and the participation of social forces is seriously insufficient.

3.2.2. Lack of Technological Innovation. Due to the impact and influence of people's ideology, technological, scientific knowledge and skills, environmental conditions, and many other reasons, many traditional industries in my country still adopt existing development methods and models and have not realized the power of innovation on the enterprise itself in the context of the Internet of Things. The survey found that many small and medium-sized enterprises need to use the types of equipment, and the technology invested is in a backward state, not reaching the industry average. Its products lack sufficient added value, and the market performance is not good, which directly affects the company itself.

3.2.3. The Guarantee Mechanism Is Not Perfect. Although smart cities have been reported frequently, they are still castles in the sky for most cities with weaker economies.

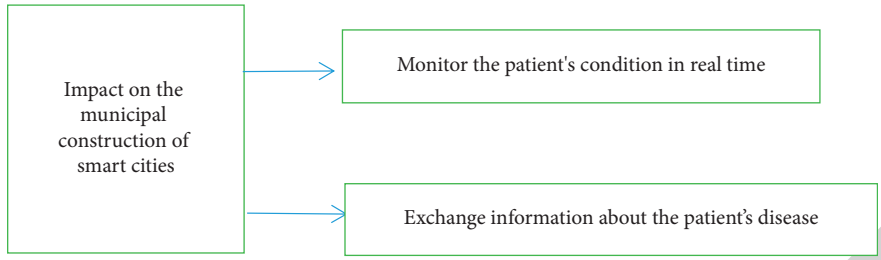

Figure 4: Impact on the municipal construction of smart cities.

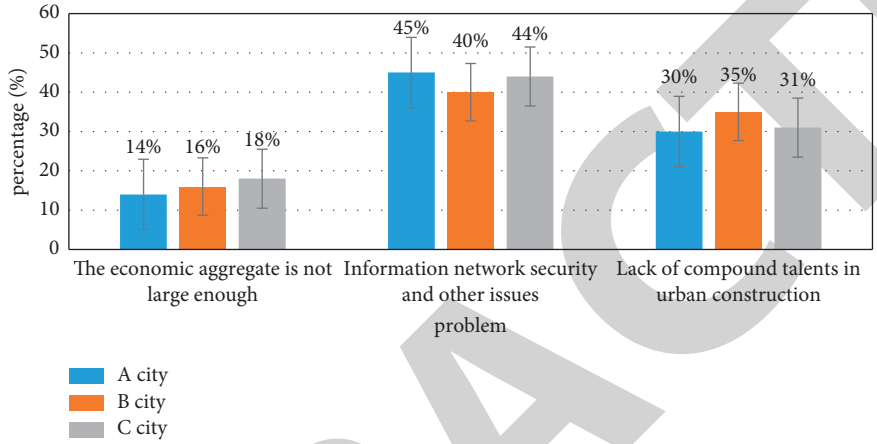

Figure 5: Type of problem.

Table 2: Related suggestions are given.

	A City (%)	B City (%)	C City (%)
Establish a talent introduction policy	46	47	46
Reasonable urban industry planning	28	30	29
Introduce high-tech facilities	23	21	27

Even in many cities that have already begun construction, the mechanism for ensuring the progress of this work is still very inadequate. This requires us to vigorously improve the government's support policies while promoting the development of smart cities; otherwise, it will be difficult to fully realize the coordinated development of the urban economy.

3.2.4. The Talent Gap Leads to a Weak Technical Foundation. The construction of a smart city requires the support of mature Internet of Things technology, and the latter has very high requirements for professional talents. Judging from the current situation, many smart cities are under construction or proposed to be built in my country, except for a few cities where technical talents are concentrated, almost all purchase special designs and program integration from outside. This makes it difficult to sustain the later maintenance and technological update of smart cities as shown in Figure 6.

As shown in Figure 6, problems in the construction of smart cities and regional industrial economy are mainly in the following aspects: the guarantee mechanism is not perfect, talent gap, lack of technology, and lack of knowledge.

3.3. Main Strategies for Smart City Construction and Regional Industrial Economy

3.3.1. Do a Good Job in the Design of Top-Level Planning. When building a smart city, if it is possible to ensure that the design work of the highest design level has high integrity, then the construction of the smart city can basically be completed effectively, and at the same time, it can be fully integrated with the local industrial economy to achieve better development increase. In the context of the rapid development of the Internet of Things technology, the government must plan the construction of smart cities with the vision of sustainable development and use it as the basis for future development. At the same time, the actual conditions and historical progress of the city must be considered in order to adopt long-term planning methods to ensure that all detailed system rules can be effectively applied.

3.3.2. Strengthen Technological Innovation. At this stage, the driving force of my country's economic growth is gradually shifting to science and technology, and science has become a new driving force for urban development. The Chinese

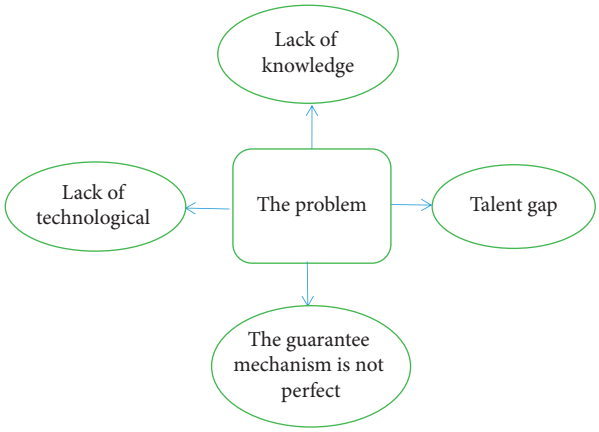

Figure 6: Problems in the construction of smart cities and regional industrial economy.

government has also constantly emphasized the need to achieve steady economic development through advances in science and technology. On the one hand, it is to optimize some traditional industries as a whole to make their transformation more reasonable. At the same time, it is necessary to invest as much as possible in new technologies, so as to improve its functions and increase its technical content as a whole. Some local traditional industries will be upgraded accordingly to meet the basic development needs at that time. On the other hand, manufacturing has always been a key industry for urban development. However, due to technological innovation, the working mode of some industries has been relatively outdated and has been gradually eliminated by the times.

3.3.3. Further Improve the Five Mechanisms. The five mechanisms are our guidelines for building smart cities, and they are also the center that cannot be ignored. It includes innovation, coordination, green, openness, and sharing. The creation of our smart city must adhere to this center and constantly adjust and improve it according to actual needs. First of all, the company's internal leaders must configure the organization mechanism according to their actual situation to complete the overall coordination of various construction contents and improve the initial defects. Second, we optimize the original market driving force, look for its own content defects, conduct innovative research to invest all capital costs in appropriate projects, and then use its own leverage and guidance to fully reveal its sexual impact.

4. Conclusions

With the increasing requirements of urban residents for the living experience, the development trend of smart cities is also more obvious. Smart city planning must always adhere to the principle of "people-oriented", and on the premise of meeting various construction specifications, we make planning and designs that meet the needs of residents, improve the quality of life of residents, create a new form of urban community, and make it more in line with urban planning and development requirements. Wireless communication technology enables faster communication in smart cities, and it can accelerate the efficiency of communication and cooperation among urban citizens, while IoT technology can interconnect electronic devices throughout the smart city, increase the speed of city operation, and ultimately improve the speed of urban economic development.

The development of a city is inseparable from the surrounding area. Therefore, the construction of a smart city has a very direct relationship with the overall industrial layout and economic development of the area where the city is located. In the design of building a smart city, we must pay attention to avoiding representative problems in other cities and fully integrate the characteristics and actual needs of the city itself and surrounding areas on the basis of respecting basic principles. We use scientific entropy calculation to determine the proportion of various elements in the construction of smart cities. In the actual survey, this research found that there are still some problems in the construction and application of smart cities and the development of the regional economy. Then, it conducted a survey of talents in other fields. The survey results can be drawn: first, in the era of mobile Internet of Things and in the context of my country's smart city construction and application, as well as the development of regional industries and economy, one of the biggest problems that need to be encountered is information security, which accounts for about 41% of the time. Then, there is a lack of relevant professionals. It accounts for about 31%. Second, related policies and recommendations accounted for the largest proportion of talent introduction, accounting for about 45%, and then rationally planning their own industrial structure, only about 28%. Because the traditional method is still used in the questionnaire survey, it is easy to obtain invalid questionnaires, resulting in low reliability of the data. In the future, we can consider designing a new questionnaire survey method to improve the questionnaire recovery rate and reliability, thereby increasing the amount of data. The authenticity of the investigation will ultimately increase the efficiency of the investigation and the credibility of the findings. In this regard, we must actively respond and consolidate the talent pool for building smart cities. With the deepening of research and the further development of Internet of Things technology, our smart city design will inevitably be more scientific, practical, and forward-looking. In the follow-up research, the team will select representative smart city construction cases for analysis and focus on analyzing their problems and experiences in the construction process.

Data Availability

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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