

## *Retraction*

# **Retracted: Application of Artificial Intelligence-Based Sensor Technology in the Recommendation Model of Cultural Tourism Resources**

### **Journal of Sensors**

Received 12 December 2023; Accepted 12 December 2023; Published 13 December 2023

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This article has been retracted by Hindawi, as publisher, following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of systematic manipulation of the publication and peer-review process. We cannot, therefore, vouch for the reliability or integrity of this article.

Please note that this notice is intended solely to alert readers that the peer-review process of this article has been compromised.

Wiley and Hindawi regret 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 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.

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## Research Article

# Application of Artificial Intelligence-Based Sensor Technology in the Recommendation Model of Cultural Tourism Resources

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Received 15 August 2022; Revised 3 September 2022; Accepted 8 September 2022; Published 24 September 2022

Academic Editor: C. Venkatesan

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Aiming at the lack of theoretical basis for the development of cultural tourism resources, an application method of artificial intelligence-based sensor technology in the recommendation model of cultural tourism resources is proposed. Sensor network is an application-based network. Compared with traditional wireless communication network, it has the characteristics of large node scale, self-organized multihop, unattended, and no communication infrastructure. Combined with artificial intelligence sensor technology, this paper attempts to construct an evaluation index system and evaluation model for cultural tourism resources, and uses this model to conduct a comprehensive evaluation of cultural ecotourism resources in the western region. The experimental results show that the  $E$  value of the evaluation result of cultural tourism resources in the western region is 6.346, which has a good development value. Secondly, from the specific evaluation results of each level, the western region has the highest cultural tourism standard, which has 6.605. Cultural tourism resources, landscape resources, and development conditions scored lower. Among them, cultural tourism resources and landscape resources have the highest score (7.186), and the economic and cultural field has the lowest score (6.092). Among the cultural tourism development conditions, the policy conditions are high (6.823), but the location conditions are very low, only 4.879 points. Therefore, it is found that the model takes cultural tourism landscape resources, cultural tourism environment resources, and cultural tourism development conditions as the content of cultural tourism resources evaluation, which is comprehensive and has strong hierarchy and pertinence; fuzzy comprehensive evaluation method has strong objectivity to determine the weight and the value classification; and weighting evaluation model of cultural tourism resources has rationality and generalizability and can provide a scientific basis for the classification and evaluation of cultural tourism resources and the planning and development of cultural tourism.

## 1. Introduction

The initial definition of resources is the original given of nature, and later expand it as natural resources and cultural resources and clarifies the utility characteristics of resources [1]. Among them, natural resources can generate economic value at a certain period of time and location to improve the natural environmental factors and conditions of humanity and future welfare; cultural resources are the material and spiritual products that condense human nondifferent labor. It includes substances and intangible cultural wealth accumulated in historical evolution [2]. Tourism resources are based on functional properties, which means that there are

certain areas that can be attractive to tourists and can use and generate a variety of things and factors that use and produce economic, social, and environmental benefits. Including the development and utilization of natural humanistic tourism resources and potential nature of tourism attractive to be developed [3]. Cultural tourism resources are the child concept of tourism resources. On the narrow sense, cultural tourism resources are a type of tourist resource for cultural and tourism organic combinations; in a broad sense, any tourism resources that can provide cultural experiences for tourists, including historical, art or scientific value cultural relics, architecture site remains and oral traditions, performing art, social customs, etiquette, festive, practical experience

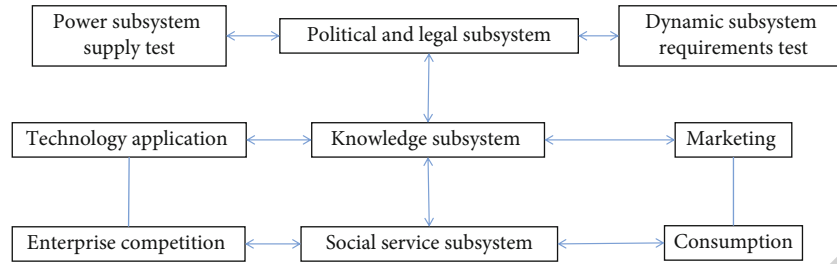


FIGURE 1: Logical model diagram of cultural industry development system.

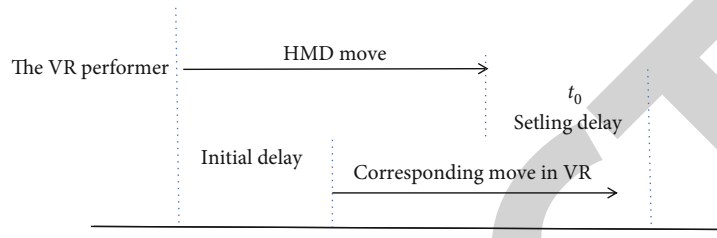


FIGURE 2: Initial delay and demystified delay.

and knowledge, and craftsmanship. It is the form of traditional cultural expressions such as cultural tourism resources [4].

In recent years, tourism is booming, and the technical cooperation between tourism and information technology (IT) has also matured [5]. In smart tourism services, IT technology such as the Internet, Artificial intelligence software, big data, wireless sensor network, and near-distance communications (NFCs) have been used to provide accurate travel information and extensive travel experiences for visitors [6]. For example, visitors can download the discipline of the leisure park and book a time slot of its play facilities or facilities. This can shorten the time of visitors waiting in line and improve the overall utilization and visitor satisfaction of the facility. In order to further improve the efficiency of tourism management and services, optimize passengers' travel experience, combine Artificial intelligence software and big data, and explore the construction of cultural tourism resources recommended models, design and efficient recommendation, and strategies. The logical model of cultural industry development system is shown in Figure 1 [7].

## 2. Literature Review

For this research question, Ibrahim and Adamu reviewed the spatial distribution and characteristics of national cultural tourism resources in Dounana, Nigeria [8]. The MoVR system 4 proposed by Yusuf et al. used 60GHz millimeter wave to realize wireless transmission between the rendering host and the display helmet in the separated VR system [9]. FlashBack proposed by Wisutruangdat renders the whole VR application in advance, discretizes the continuous virtual space into a large number of panoramas of different locations and stores these panoramas in a layered cache based on the design of external storage devices [10]. Bi and Wang measured the delay performance of current mainstream immersive VR systems and defined more accurate delay

indicators: initial delay and stashing delay (as shown in Figure 2) [11]. Kwiatek-Soltys and Bajgier-Kowalska used a method based on image compression: frame data of different VR scenes were compressed into JPEG format according to the same compression ratio, and the scene consuming more storage space after compression would be more complex [12]. Eunice and Mwangi used the BRISQUE value commonly used in graphics to evaluate the scene complexity [13]. Thong et al. analyzed the problems and risks of AI application in cultural industry and proposed corresponding preventive measures [14]. Palanca-Tan described the production integration, communication integration, and consumption integration of Artificial intelligence and cultural industry and carried out path optimization design for its integration innovation [15]. Iaromenko et al. proposed the use of intelligent cultural product supply chain to solve the supply-side problem of cultural industry [16]. Wang et al. deeply discussed the intelligent innovation paradigm and development boundary of cultural creative industry [17]. Based on the AI industry advantages of the Guangdong-Hong Kong-Macao Greater Bay Area, Hamad et al. proposed a new idea of promoting the cultural industry development of the Guangdong-Hong Kong-Macao Greater Bay Area with Artificial intelligence [18].

This paper is based on the existing ecotourism resource evaluation indicators: models, attempts to build a cultural tourism resource evaluation index system, evaluation model, and finally use model evaluation of western cultural tourism resources. The experimental results show that in the highest score of cultural tourism environmental resource indicators, cultural tourism is more desirable, but the environmental environment, the environmental environment, and community economy is poor, which is also the need in the development of cultural tourism development in the western region as the direction of efforts. Finally, through the simple application of cultural tourism resource evaluation model, this model is found to be evaluated by cultural tourism and

landscape resources, cultural tourism environmental resources, and cultural tourism development conditions as cultural tourism resources, more comprehensive and strong hierarchical and targeted sex, and fuzzy comprehensive evaluation method has strong objectivity for the determination of weight, which has better performance.

### 3. Research Methods

*3.1. Introduction to Artificial Intelligence Software.* Generally, artificial intelligence software refers to techniques that represent human intelligence through ordinary computer programs. In the intelligent tourism integrated system, the application of artificial intelligence software technology mainly includes machine learning, intelligent perception, intelligent reasoning, and intelligent action, but these applications are closely related to big data, mobile internet, and cloud computing technologies.

*3.1.1. AI Software and Mobile Internet.* The Internet is the premise of all technology. It is so ubiquitous that it is almost impossible to find a device that is not connected to the Internet. The essence of the mobile internet is still the Internet. It simply allows internet users to connect to the cloud of the Internet without geographical restrictions.

*3.1.2. Artificial Intelligence Software and Big Data.* They complement and promote each other. Big data mainly refers to the mass, multidimensional, multiform, etc. According to the above analysis, it can be seen that big data is one of the foundations of artificial intelligence software. It can be said that there is no so-called intelligence without big data. Data can bring a lot of information, but it is difficult to see the information and value contained in data if you just observe the disorderly data. The algorithms in artificial intelligence technology can make big data meaningful and valuable. The bridge between artificial intelligence software and big data is machine learning. The process of machine learning mainly includes data collection, algorithm design, algorithm implementation, algorithm training, and algorithm verification. It can be seen that data is the premise of machine learning, and the application of artificial intelligence software technology must be supported by relevant data. At the same time, effective information and value can be mined through the analysis of data by algorithms in machine learning.

*3.1.3. AI Software and Cloud Computing.* Cloud computing refers to the decomposition of huge data processing programs into countless small programs through the network "cloud", and then the results of these small programs are processed and analyzed by the system composed of multiple servers and returned to users. In simple terms, cloud computing is mainly distributed storage and distributed computing. Through the above analysis, we know that artificial intelligence software needs the vast amount of data for training and learning, the cloud is used for artificial intelligence software to calculate the force on the support, cloud computing is a powerful booster behind artificial intelligence software, while cloud computing makes your business ecosystem, and cloud computing platform resources integra-

tion requires the application of artificial intelligence software technology.

*3.2. Establishment of Cultural Tourism Resources Evaluation Index.* The purpose of cultural tourism resource evaluation is to identify cultural ecotourism resource type characteristics, analyze resource organization structure, determine resource value, and evaluate resources. For a long time, scholars are only studied for overall ecological tourism resources, and their corresponding evaluation indicators are also some comprehensive evaluation indicators. However, the existing evaluation index establishment basis and principles have the same reference value for this study. Follow the basic principles of concise science, systemic, representative, comparability, operability, qualitative and quantitative, combined with cultural tourism resource classification scheme, refer to the existing literature and related documents, evaluation indicators, and use frequency The degree statistics method, theoretical analysis, expert consultation law and tourist investigation method, three aspects of cultural tourism landscape resources, cultural tourism environmental resources and cultural tourism development conditions, and construct the following cultural ecotourism resource evaluation index system. Among them, cultural tourism landscape (B1) is the core constituent elements of cultural tourism, their scarcity, uniqueness, and aesthetic value directly determines the attraction of cultural tourism, and is the core and foundation of cultural tourism resource evaluation system. At the same time, the emphasis on ecological tourism has also determined the cultural tourism environment (B2) to distinguish important signs from other tourism types, and cultural landscapes can only reflect their unique aesthetic value in the corresponding cultural ecological environment. Experience the value, so the cultural tourism environment (mainly human environment) should also be an important part of cultural ecotourism resource evaluation. Furthermore, in a sense, the resources are useful to human beings, and the evaluation of resources must be inseparable from social needs, and thus combined with the source of cultural tourism, location conditions, policy conditions, etc. (B3) to analyze the value of cultural tourism resources to reflect the nature of resources and then make more objective evaluation [19].

#### *3.3. Cultural Tourism Resource Recommended Model Construction*

*3.3.1. Indicator Measure and Judgment.* According to the cultural tourism resource evaluation target, refer to the evaluation method of ecotourism resources in the relevant literature, using the fuzzy comprehensive evaluation method, divide the index standards into excellent, good, medium, poor, standard adoption of decimal score, full classification 10 points, and each level of fractions are: 10-8, 8-6, 6-4, 4-2. In a specific evaluation, the score of each indicator can be determined according to the actual data or expert [20].

*3.3.2. Indicator Weight Calculation.* Calculate the current level of analytical method (AHP method) to calculate the weight. The first step is to construct the judgment matrix.

TABLE 1:  $P_{ij}$  takes the value.

The value taken for $P_{ij}$	Meaning
1	Factor $P_i$ is equally important as $P_j$
3	Factor $P_i$ to $P_j$ are slightly important
5	Factor $P_i$ to $P_j$ is significantly important
7	Factor $P_i$ is much more important than $P_j$
9	Factor $P_i$ to $P_j$ is extremely important
2,4,6,8	The importance of factor $P_i$ to $P_j$ ranged between 1-3,3-5,5-7, and 7-9, respectively
$P_{ij} = 1/f_{ji}$	Represents the unimportance of factor $P_i$ to $P_j$

According to the cultural tourism evaluation index system, the invitation experts score, determine the comparative relationship between two or two factors related to the upper layer in the same layer and construct the judgment matrix. Each matrix should be satisfied:

$$P = \begin{cases} P_{11} & P_{12} & P_{13} & P_{1n} \\ P_{21} & P_{22} & P_{23} & P_{2n} \\ \vdots & \vdots & \vdots & \vdots \\ P_{n1} & P_{n2} & P_{n3} & P_{n4} \end{cases} \quad (1)$$

$P_{ij} = 1$  and  $P_{ij} = 1/f_{ji}$ ,  $P_{ij}$  shows the determination value of the relative importance of the element  $P_i$  pairs  $P_j$  for  $P_k$ , and the value of  $P_{ij}$  is shown in Table 1.

Use  $W_i = (i = 1, 2, 3)$ ,  $W_{ij} = (i = 1, 2, 3, j = 1, 2, \dots, 11)$  represents B and C layer indicators, and the value range is from 0 to 1 and  $\sum W_i = 1$ ,  $\sum W_{1j} = 1$ ,  $\sum W_{2j} = 1$ . The larger the value, the more important it indicates that the indicator is in its indicator layer. The smaller the value, the lower the importance. The second step is to solve the matrix feature value. According to the confirmation matrix of the constructed, the characteristic vector corresponding to the maximum feature root is obtained, which is the weight of each evaluation factor. The maximum characteristic root and feature vectors of each matrix are calculated using the accumulation method, and the specific methods are as follows:

(1) Standardize columns in the matrix P, obtained

$$P_{ij} = \frac{P_{ij}}{\sum P_{ij}} \quad (2)$$

(2) Add and count by line

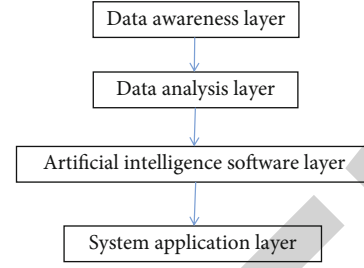


FIGURE 3: Tourism integrated system model based on artificial intelligence software.

$$W_i = \sum P_{ij} \quad (3)$$

(3) Standardization weight

$$W_i = \frac{W_i}{\sum W_{ii}} \quad (4)$$

(4) Calculate the maximum characterization of the matrix

$$\lambda = \frac{1}{\sum_{n=1}^n [(p, W_i)/W_i]} \quad (5)$$

(5) Judgment matrix consistency test

The ratio analysis method uses the ratio of the consistency index (CI) of the judge matrix and the corresponding random consistency index (RI), and the random consistency ratio (CR) is tested, and it is considered that when  $CR < 0.10$ , the determination matrix is satisfactory consistency in:

$$CI = \frac{(\lambda - n)}{(n - 1)} \quad (6)$$

$$CR = CI \div RI \quad (7)$$

RI can be obtained by judging the corresponding order ( $n$ ) of the matrix.

3.3.3. *Evaluation Model Establishment.* Big data, Artificial intelligence software, mobile internet, cloud computing, etc. in the smart tourism integrated system, in the smart tourism system, which constructs Artificial intelligence software cultural tourism resource recommendation model, respectively. Reference Fuzzy Mathematics Medium Partition Functions and Fuzzy Comprehensive Evaluation Methods, using weighted and multi-indicators comprehensive evaluation model are used to calculate cultural tourism resource evaluation value. Construct the tourism integrated

system model based on artificial intelligence software as shown in Figure 3.

- (1) The first layer is the data perception layer, which mainly introduces how the data of tourism demand side and tourism supply side are connected with the network, mainly the application of mobile Internet technology
- (2) The second layer is the data analysis layer, namely, the big data analysis layer, which mainly contains four key steps: data collection, data cleaning, data processing and data analysis. There are two main methods to collect big data: one is through sensors and the second is the crawler that collects Internet network data information
- (3) The third layer is the artificial intelligence layer, which is mainly the application of artificial intelligence technology in the intelligent tourism integrated system, mainly including machine learning intelligent perception, intelligent reasoning and intelligent action. Machine learning should build a suitable learning model according to the actual situation of different scenic spots, regions, and each scenic spot as well as the specific goals they want to achieve
- (4) The fourth layer is the system application layer, that is, the application of tourism integrated system. The whole tourism integrated system is not a simple system but a complex one, which integrates big data, artificial intelligence mobile internet, cloud computing, and other technologies
- (5) Select the evaluation factor  $C$  layer of the evaluation index system as an evaluation factor set  $C = \{C_1, C_2, \dots, C_m\}$
- (6) Determination of the indicator value. Most of the indicators in the indicator system can be obtained or calculated from the statistics of each tourism resource location. Indicators are difficult to quantify in the indicator system, and the various indicators are scored in the way of the expert to inquire and answer questions. On this basis, referring to the description and calculation of the indicators of Table 1, according to the corresponding standards and methods, the score of  $C_i$  is determined, and the results are represented by  $A_i (i = 1, 2, \dots, n)$ . In order to simplify the calculation, it is considered that as long as the measured value of  $u_i$  is within the standard section of the score corresponding to a certain score, the membership degree between this interval is 1, and the partition degree of other intervals is 0, so the score of  $u_i$ , that is, a score value on this scoring standard section
- (7) Take  $B_i (i = 1, 2, \dots, W_m)$  as the corresponding weight value, and establish an equity set  $W = \{W_1, W_2, \dots, W_m\}$

- (8) Prior to progressive, the weight value of each evaluation index and the score value are submitted to the following empowerment and multi-index evaluation model, and finally derive the value of an ecological tourism resource evaluation value

$$E = \sum_{b=1}^z \left[ \sum_{i=1}^t (C_i W_i) B_b \right] \quad (8)$$

Where  $E$  is the total index score;  $C_i$  is the score of the Item 2 of the single item;  $W_i$  is the weight given by the  $i$ -th second level indicator;  $B_b$  is the weight given by the first level indicator;  $t$  is the number of second level indicators;  $z$  is the number of items in the first level.

- (9) According to the comprehensive score of cultural tourism resources ( $E$ ), cultural tourism resource development value is divided into 4 grades

**3.3.4. Artificial Intelligence Software Clustering Model of Tourism and Cultural Resources.** On the basis of statistical analysis of artificial intelligence software of tourism cultural resources, the optimization design of artificial intelligence software model of tourism cultural resources is carried out, and a kind of artificial intelligence software model of tourism cultural resources based on big data information fusion and clustering scheduling is proposed. The feature quantity of cross frequent term rules of tourism cultural resources is extracted, and the state parameter description of artificial intelligence software of tourism cultural resources is as follows:

$$M_v = w_1 \sum_{i=1}^{m \times n} (H_i - S_i) + M_h w_2 \sum_{i=1}^{m \times n} (S_i - V_i) + w_3 \sum_{i=1}^{m \times n} (V_i - H_i). \quad (9)$$

By observing the distribution of tourism cultural resources, the grouped control model of tourism cultural resources integration is as follows:

$$x = \sum_{i=1}^N S_i \psi_i = \psi_s, \psi = [\psi_1, \psi_2, \dots, \psi_N]. \quad (10)$$

Among them,  $\psi_s$  is the initial probability distribution of tourism cultural resources,  $\psi_s = \{\pi_i, i = 1, 2, \dots, N\}$  is the utilization rate of tourism cultural resources, and for tourism cultural resource information set  $S$ , the attribute relation of resource information distribution is expressed as  $P \subseteq A$  according to the above functional analysis. Under the constraints of fuzzy clustering of tourism cultural resources, the constraint factors of attribute classification evaluation

TABLE 2: Evaluation results of index level (1).

	Fuzzy aggregation ( $C_i$ )				Deblurring Pc
	Excellent	Good	Centre	Poor	
Historic site landscape C1	0.144	0.402	0.423	0.030	6.315
Architecture and block views C2	0.432	0.301	0.201	0.062	7.186
Landscape of religious worship places C3	0.2333	0.331	0.222	0.211	6.157
Economic and cultural places and landscape C4	0.242	0.311	0.201	0.244	6.092
Cultural tourism landscape resources B1	0.228	0.339	0.272	0.119	6.142

Note: In the specific calculation process, each level is evaluated as a mean, Tables 3 and 4 and Figure 4.

TABLE 3: Evaluation results of the index level (2).

	Fuzzy aggregation( $C_i$ )				Deblurring Pc
	Excellent	Good	Centre	Poor	
Ecological tourism settlement environment C5	0.512	0.311	0.100	0.076	7.513
Regional factor environment C6	0.364	0.382	0.165	0.087	7.036
Regional facilities and material environment C7	0.132	0.341	0.211	0.313	5.569
Community economic integrated environment C8	0.122	0.312	0.343	0.232	5.693
Cultural tourism environment and environmental resources B2	0.315	0.341	0.177	0.166	6.605

TABLE 4: Evaluation results of the index level (3).

	Fuzzy aggregation( $C_i$ )				Deblurring Pc
	Excellent	Good	Good	Poor	
Customer source conditions C9	0.256	0.322	0.213	0.207	6.244
Location conditions C10	0.075	0.202	0.312	0.410	4.879
Policy conditions C11	0.334	0.323	0.265	0.077	6.823
Conditions for cultural tourism development B3	0.251	0.298	0.254	0.196	6.203

of tourism cultural resources can be obtained as follows:

$$ind(P) = \left\{ \begin{array}{l} (x, y) \in U^2 | a(x) = a(y), \\ \forall a \in P \end{array} \right\}. \quad (11)$$

The fuzzy correlation degree features of tourism cultural resources are calculated, and the c-means clustering method is adopted for big data fusion processing of the extracted correlation features of tourism cultural resources. At the significance level, the c-means clustering model is as follows:

$$L_\zeta = \begin{cases} |f(x) - y| - \zeta |f(x) - y| \geq \zeta \\ 0, |f(x) - y| < \zeta \end{cases}. \quad (12)$$

**3.4. Recommended Strategy of Cultural Tourism Resources.** The main goal of the recommendation strategy is to recommend a series of POIs during the process of users. The recommended strategy consists of the following three phases: (1) prefiltration: at this stage, the system first learns the user's information, which is based on social network analysis to get the relevant location and interest, and selects a tourist attraction of tourist attractions that may be interested in users; (2) sort: dynamic knowledge based on social network

behavior, allocating three different scores, namely, interest, emotion, and popularity for tourist attractions selected in the previous phase; (3) after filtration: at this stage, the three fractions are combined according to the user's location and the probability of cultural attraction and travel ontology.

**3.4.1. Prefiltering Phase.** The purpose of this phase is to determine a tourist attraction subset of specific users based on location, popularity, and user interest ( $\hat{O} \subseteq O$ ). First, the user position is obtained according to the latitude and longitude, and the closer to the user's tourist attraction constitutes subset A. Then, by analyzing the user data log, you can get the subset B of the tourist attraction of the visitor, that is, a subset of the highest flush. Finally, when the user selects a tourist attraction using the machine learning technology, the last subset C is obtained by learning the user profile. The machine learning technology is a simple Bayesian classifier, which is a probability classifier based on the Bayesian theorem. The machine learning technique used calculates the association probability of each object relative to the user profile: adding a tour attraction with a given threshold  $\lambda$  to the subset C. The initialization set C is empty set, for any  $o \in O$  existence  $\lambda \geq 0$ , when satisfying the relationship of the following formula  $o \in O$ , the tourist attraction 4 is added

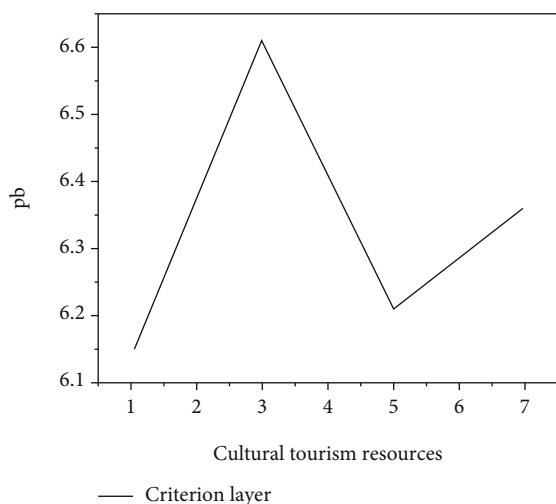


FIGURE 4: Standard layer evaluation results.

to the collection C.

$$P(x|o) = \frac{P(x|o)P(o)}{P(o)} \geq \lambda. \quad (13)$$

## 4. Result Analysis

### 4.1. Model Application: Western Cultural Tourism Resources Evaluation

**4.1.1. Research Background.** This item is conducted on two different scenic spots in the western part during the May 1 Golden Week. This study adopted a method of combining a field interview survey. According to the design and research questionnaire of cultural tourism resource evaluation index system, randomly extract tourists and surroundings in the scenic spot for the visit subjects, on-site filing, on-site interviews, and live recycling. 320 questionnaire were issued, 242 valid questionnaires were recovered, and the recovered efficiency was 75.62%. The surveillance include 182 men (56.88%) and 138 women (43.12%), aged from 18 to 71 (Table 2).

**4.1.2. Evaluation Results.** According to the previous article, the judge matrix is established, and the weight is determined, and the  $E$  value is finally obtained.

From the above evaluation results, we can see that, first, the evaluation results of cultural tourism resources in the western region have good  $E$  value 6.346, which has good development value. This result will provide an important agreement for the leading industrial status and tourism development concept of continuing to strengthen the tourism industry in the western region. Secondly, from the specific evaluation results of each level, the standards of cultural tourism in the western region is the highest, 6.605. Cultural tourism resource landscape resources and development conditions score are relatively low. Among them, cultural tourism resources landscape resources are the highest (7.186), the lowest score of the economic and cultural field (6.092). This has a high con-

sistency with the current development status and the author's research location. The cultural tourism landscape of the scenic spot is won by the ancient city building and the street, but there is a lack in the landscape development of economic and cultural places. Among cultural tourism development conditions, policy conditions are high (6.823), but the location conditions are very low, only 4.879 points. This means that the location and traffic disadvantages in the western region are still important to restrict the development of western cultural tourism, and the strong support of government policies is to promote the strong power development of cultural tourism resources in the region. Similarly, in the highest score, cultural tourism environmental resource indicators, cultural tourism gathering environment and regional elements are ideal, but the regional facilities environment, the comprehensive environment of community economy is poor, which is also working in cultural tourism development in the western region direction. Finally, through the simple application of cultural tourism resource evaluation model, this model is found to be evaluated by cultural tourism and landscape resources, cultural tourism environmental resources, and cultural tourism development conditions as cultural tourism resources, more comprehensive and strong hierarchical and targeted sex, and fuzzy comprehensive evaluation methods have strong objectivity for the determination of weight.

## 5. Conclusions

From the perspective of Artificial intelligence software, explore the construction of smart tourism data analysis model. A cultural tourism resource recommendation model based on Artificial intelligence software is proposed. The system is experimentally verified using a real data set. The experimental results show that the system has better performance. In a future study, the system will be implemented to real application scenarios, further verify the effectiveness of the system and make corresponding improvements in a targeted manner.

## Conflicts of Interest

The authors declare that they have no conflicts of interest.

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