

Retraction

Retracted: Algorithm Model Design of the Aging Transformation Scheme of Computer Intelligent Aided Technology under the Background of Rural Revitalization

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This article has been retracted by Hindawi, as publisher, following an investigation undertaken by the publisher [1].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.

References

- [1] Y. Pan, "Algorithm Model Design of the Aging Transformation Scheme of Computer Intelligent Aided Technology under the Background of Rural Revitalization," *Security and Communication Networks*, vol. 2022, Article ID 3985519, 6 pages, 2022.

Research Article

Algorithm Model Design of the Aging Transformation Scheme of Computer Intelligent Aided Technology under the Background of Rural Revitalization

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The study is to improve the living environment of the elderly in rural areas, improve the quality of life and well-being of the elderly, and ensure the living environment of the elderly while promoting rural revitalization and development under the policy background of rural revitalization, this study optimizes the aging transformation scheme by integrating computer intelligent auxiliary technology, and analyzes and compares the algorithm model design of the aging transformation scheme through the algorithms of the traditional transformation scheme and computer intelligent auxiliary technology. The results show that compared with the transformation scheme of the traditional algorithm, the transformation scheme after using computer intelligent auxiliary technology has higher accuracy and coupling for the aging transformation scheme, and has a better effect on improving rural development, beautiful rural construction, and improving the life of rural residents.

1. Introduction

With the overall victory of the national poverty alleviation, China's rural development strategy began to enter the road of rural revitalization, narrow the urban-rural economic gap, and complete the modernization of rural construction. The transformation of the new rural living environment is an inevitable trend, which will develop towards intelligent elderly care, the development of aging technology and intelligent elderly care. In order to improve rural development, the state has successively issued relevant policies such as beautiful rural construction and poverty alleviation strategy, which has injected fresh blood into the development of rural areas. With the strong support of the state, the rural appearance has changed greatly [1]. In order to develop rural areas, revitalize rural economic development, and truly develop rural economic construction, on October 18, 2017, General Secretary Xi put forward the strategy of "rural revitalization" in the report of the 19th CPC National Congress. Based on the principles of industrial prosperity, ecological livability, rural civilization, effective governance,

and rich life, the backward rural areas will be built into beautiful villages with "beautiful environment, perfect facilities, economic prosperity, civilization, and harmony" through the construction of rural economy, culture, politics, society, and other aspects. The new generation of computer intelligence technology drives intelligence and intelligent governance, and is embedded in rural construction from the whole process of production, life, and ecology. The rural revitalization strategy is a major decision-making and deployment to realize China's agricultural and rural modernization in the new development stage, an important way to promote the integrated development of urban and rural areas, a strategic measure to solve the main contradictions in China's current rural society, and the only way to achieve common prosperity in rural areas [2]. As a beneficial policy to improve the housing conditions of rural residents, rural housing transformation has important practical significance for ensuring the safety of rural residents' lives and property, maintaining rural, social, and political stability, and improving the overall rural environment. In July 2020, the Ministry of Civil Affairs and other nine departments jointly

issued the guidance on accelerating the implementation of the home aging transformation project for the elderly, which has aroused strong repercussions in the elderly care industry. However, in fact, before the issuance of this guidance, many provinces and cities have implemented aging transformation in advance. However, these transformation points are basically concentrated in urban areas. The progress of aging transformation in a large number of old residential areas is still very slow. In the vast rural areas, aging transformation is still a relatively unfamiliar concept. It is the inevitable development of China's rural economic and social development that computer specialty helps rural construction. It is also the inevitable choice to promote the development of computer technology-related disciplines to a higher level under the background of aging transformation of modern rural areas in China [3]. In the context of the rural revitalization strategy, it is a major issue for China to improve the quality of human capital, win the battle against poverty, and implement the rural revitalization strategy at the present stage to continuously narrow the gap between urban and rural areas, effectively promote the integrated development of urban and rural areas, so as to narrow the gap between urban and rural living environment and students' studies, and promote the balanced development of urban and rural living and education [4]. Under the rural revitalization strategy, computer intelligent auxiliary technology has the advantages of simplicity, effectiveness, and large-scale promotion. Computer intelligent assistance is of great significance to improve rural transformation, reduce costs, and realize rural revitalization [5]. We will add intelligent computer-aided technology to the transformation of rural aging to build a living environment more in line with the lives of the elderly. Compared with the previous goal of meeting the basic housing safety of farmers, China will reform rural housing with more perfect measures, stricter standards, and more advanced technology.

2. Application Analysis of Computer Intelligent Assistant Technology in Rural Revitalization

Innovation and reform of "smart agriculture" are quietly emerging in rural areas all over China. The recently released "opinions of the CPC Central Committee and the State Council on comprehensively promoting rural revitalization and accelerating agricultural and rural modernization" proposed to implement the intelligent rural construction and development project, and strengthen the construction of computer intelligence such as rural public services and social governance. Computer intelligent technology will help to revitalize all aspects of rural areas, add more smart homes and tools to human life, and provide convenience for life; intelligent management and cleaning of the environment to reduce the difficulty of rural management and control; to enhance production efficiency and reduce labor intensity in agricultural production. At present, the development of rural areas is backward in all aspects. The traditional rural buildings have been damaged to varying degrees in the vast rural areas due to the limited development conditions and the villagers' lack of understanding of all aspects. Computer

intelligent auxiliary technology has an external intervention effect on rural construction. Taking the rational coupling of computer intelligent auxiliary technology as the direction, it solves the obstacles of backward technology, insufficient understanding of rural residents and interests, and standardizes the embedding of computer intelligent technology into rural construction [6]. Computer intelligence also promotes rural culture. Combining the online and offline development models, we enrich the venues of rural public cultural services and provide rural residents with a full spiritual and cultural life [7]. With the continuous development of computer intelligence technology, computer intelligence can be used to assist the aging transformation of rural revitalization. With the development of computer artificial intelligence, a large number of traffic bloggers have emerged in the development and revitalization of modern villages. They carry out rural revitalization and economic development through intelligent technologies such as short video and e-commerce platforms [8]. Rural revitalization is a major strategy proposed by the 19th National Congress of the Communist Party of China, which is related to the hope of China to achieve a well-off society in an all-round way; Internet intelligent technology plays an important role in rural revitalization in China, which is in line with the concept of modern rural revitalization [9].

3. Construction of the Artificial Intelligence Algorithm Model Based on Computer Technology

Artificial intelligence of computer technology is the intelligent behavior of simulating people's relevant thinking process through computer. The research in this field mainly includes intelligent robot, intelligent image recognition, intelligent speech recognition, intelligent computing and processing, and other functions. The artificial intelligence algorithm of computer technology can simulate human rational thinking, perception, and action. Combined with artificial intelligence, and based on the research of township or village home-based elderly care space environment, elderly health assessment, and aging transformation project technology, the aging transformation project and elderly ability evaluation index items are selected, and the aging transformation scheme is studied through the artificial intelligence calculation method. With the in-depth integration of the system design and artificial intelligence, the aging transformation is realized to improve the aging experience. The analysis of relevant AI auxiliary algorithms are shown in Figure 1:

In Figure 1, the displayed time series data refers to the data of time series and a series of relevant data collected according to time. Each data in the same data column is analyzed through the matrix, and then the supervised learning and unsupervised learning problems are analyzed through the overrun learning machine module and the computer intelligent algorithm. After analyzing the intelligence of a transfinite learning machine through a fuzzy neural network system, the output result is finally

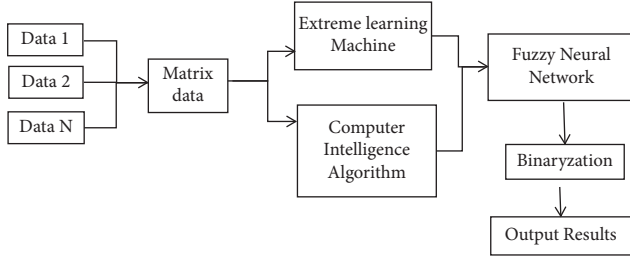


FIGURE 1: Artificial intelligence aided algorithm analysis.

obtained through binary calculation and analysis. In order to effectively improve the calculation efficiency of computer artificial intelligence recognition, it is necessary to calculate the difference, as shown in the following formula:

$$S\{t_{n'}\} \longrightarrow S\{t_n - t_{n-1}\}, n' \in \{0, 1, 2, 3 \dots n\}, n \in \{1, 2, 3 \dots n\}. \quad (1)$$

The difference sequence obtained is input into the overrun learning machine, as shown in the following formula:

$$y = \sum_{i=1}^n [A \cdot \sin(Bx_i + C) + D]. \quad (2)$$

Among them, I equals pointer variable; N is the number of nodes of the upper layer neural network; A , B , C , and D are regression variables; x_i is the i th variable input by the upper neural network;

The output data of the fuzzy neural network is the output data on a $[0, 1]$ interval. These data lack the distribution law, so it needs to be binarized. An independent binarized neural network module is designed for each scheme to form a binarized multi column neural network. The node basis function of the binarized neural network is as shown in the following formula:

$$y = \sum_{i=1}^n \frac{1}{A + B \cdot e^{x_i}}. \quad (3)$$

Among them, E is the natural constant, and the approximate value here is $e = 2.718281828$.

4. Rural Revitalization and Aging Transformation under Computer-Aided Intelligent Technology

4.1. Accuracy Verification of the Computer Intelligent Technology Algorithm. Population aging has always been the focus of national attention. After entering the aging society, the elderly care needs of residents are also increasing, and rural elderly care has always been the key and difficult point of China's aging work. To take rural revitalization as an opportunity to further solve the problem of rural elderly care. Compared with the elderly in cities, the consumption capacity of the rural elderly is relatively insufficient, the living location is relatively scattered, and there are few basic

public facilities, resulting in the lagging living environment and information of the rural elderly. With the significant development of China's poverty alleviation strategy, we should combine rural revitalization with computer intelligent technology, actively strengthen rural construction in all aspects, and carry out aging transformation in rural areas, so as to provide a more comfortable elderly living environment for rural residents. In order to improve the aging transformation in rural areas, this study makes an average grouping of 30 transformation cases, analyzes and compares the data of aging transformation through traditional calculation and a computer-aided technology intelligent algorithm, and accurately compares the aging transformation schemes of the two algorithms. Table 1 is as follows:

In Table 1, by comparing the accuracy of the two algorithms in the above table for the transformation scheme suitable for aging, the accuracy of the computer-aided technology algorithm is low. After using the computer-aided technology algorithm, the accuracy has increased significantly. Comparing the accuracy of the two algorithms, it can be seen that the computer-aided technology algorithm is more conducive to the model design of the transformation scheme suitable for aging.

In order to better display the accuracy of aging transformation, the accuracy comparison results of aging transformation schemes of two different algorithms are visualized, and Figure 2 is obtained.

Figure 2 shows the accuracy comparison results between the traditional algorithm and the computer intelligent technology algorithm. The results show that the aging adaptation model algorithm after using the computer intelligent technology is better than the traditional algorithm. The computer intelligent technology has higher accuracy for the aging adaptation model algorithm, and can more accurately transform the rural aging adaptation according to various rural factors, which is helpful to improve the aging adaptation process of our country and promote the revitalization of the countryside.

4.2. Coupling Degree Verification of the Intelligent Algorithm of Computer Aided Technology. By comparing the accuracy of two different algorithms for the aging transformation scheme, and based on the accuracy of computer-aided technology for the aging transformation scheme, the coupling comparison results of traditional algorithms and computer intelligent technology are evaluated and analyzed, and Table 2 is obtained.

Table 2 shows that in the comparison of the coupling degree between traditional algorithms and computer-aided technology, the computer intelligent technology has a higher coupling degree to the algorithm model of the aging transformation scheme, which is significantly improved compared with that before use, which is more conducive to the development of aging in rural areas.

In order to better reflect the coupling degree of different algorithms in the aging transformation scheme, the comparison results are visualized, and Figure 3 is obtained.

TABLE 1: Accuracy comparison of different algorithms for aging modification scheme.

Divide into groups	<i>n</i>	Precision	
		Before use	After using
Traditional algorithm	15	85.23%	90.45%
Computer-aided technology intelligent algorithm	15	82.33%	95.67%
<i>t</i> value		7.423	8.673
<i>P</i> value		0.034	0.046

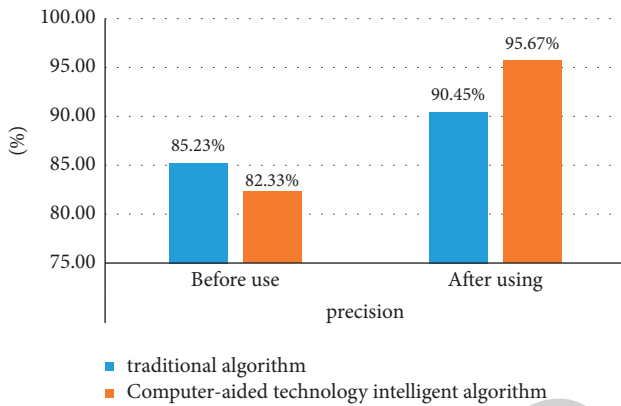


FIGURE 2: Comparison of accuracy of different algorithms in aging reconstruction scheme.

TABLE 2: Comparison of coupling degree of different algorithms in the aging reconstruction scheme.

Divide into groups	<i>n</i>	Degree of coupling	
		Before use	After using
Traditional algorithm	15	67.85%	72.45%
Computer-aided technology intelligent algorithm	15	66.78%	81.56%
<i>t</i> value		8.356	7.869
<i>P</i> value		0.037	0.045

Figure 3 shows the comparison of the coupling degree of different algorithms in the aging transformation scheme. The results show that the coupling degree of the traditional algorithm is lower than that of the computer intelligent technology algorithm. After using the computer intelligent technology algorithm, the coupling degree has been significantly improved, which can better improve the coupling effect between the transformation schemes, enhance the design performance of relevant transformation schemes, and further promote the aging construction in the countryside.

4.3. Aging Transformation Trend. With the rapid development of intelligent society, the elderly have higher and higher requirements for the quality of life. However, with the

progress of science and technology, the elderly have different abilities to accept intelligent products. It is particularly important to build an intelligent life circle in line with the lives of the elderly in the rural aging transformation, and a good living environment is also conducive to the physical and mental health of the elderly. Through the comparative observation of the satisfaction of the transformed green environment, residential transformation, decoration design, and intellectualization under the two algorithms are obtained in Table 3.

In Table 3, the use of computer-aided technology intelligent algorithm has relatively high satisfaction with the aging transformation of rural areas, and has better living effect on greening, housing, decoration, and intelligence, which is more suitable for the living needs of the elderly.

The comparison results of the effect satisfaction of the aging transformation schemes under the two algorithms are visualized, and Figure 4 is obtained.

Figure 4 shows the satisfaction of the transformation in different aspects under the two algorithms. The results show that the use of the computer-aided technology intelligent algorithm can make the greening environment better. The transformation of housing and decoration is more suitable for the life of the elderly than the transformation of the traditional algorithm, and the transformation of intelligence makes the life of the elderly more convenient. The application of this algorithm is more efficient and adaptive to the effect of rural aging transformation in China, accelerates the progress of aging transformation, and accelerates the pace of rural revitalization in China.

5. The Development of Computer-Aided Intelligent Technology for Aging Modification

At present, the aging of rural areas is intensifying, the living environment and facilities of the rural elderly are backward, and their life is boring. In order to solve these problems, greening the environment, transforming houses, decoration design, improving the intelligent level of houses, and improving the aging degree of rural construction have become the key points in rural construction. In response to the requirements of the central planning, many places have built 5G technology villages through 5G, "safe countryside" and other information and communication technology means, improved aging measures, and enriched the lives of the elderly. Most rural elderly people do not like typing, and their accent is serious. Some products add dialect settings to effectively help the elderly people with voice input. The modernization of urban and rural construction needs to take into account the aging population, fully adapt to the aging society in terms of soft environment, and earnestly reflect the concept of old-age friendliness in the hard environment [10]. Rural planning and construction should build a spatial context network from the planning level, form a multi-level spatial structure based on point space, guided by linear space and centered on area space, implant diversified communication space, improve aging facilities, and provide

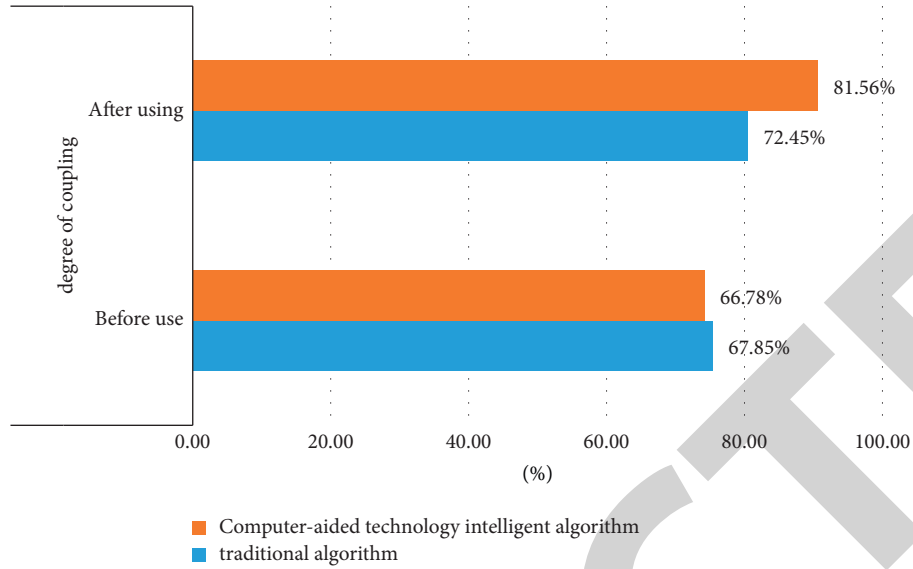


FIGURE 3: Comparison of coupling degree of different algorithms in the aging reconstruction scheme.

TABLE 3: Comparison of satisfaction degree of the aging transformation effect of different algorithms.

Divide into groups	Green environment	Residential renovation	Decoration design	Intellectualization
Traditional algorithm	80.2%	82.3%	80.9%	78.6%
Computer-aided technology intelligent algorithm	88.6%	91.2%	93.5%	92.5%
<i>t</i> value	8.254	8.579	8.743	8.975
<i>P</i> value	0.035	0.038	0.043	0.048

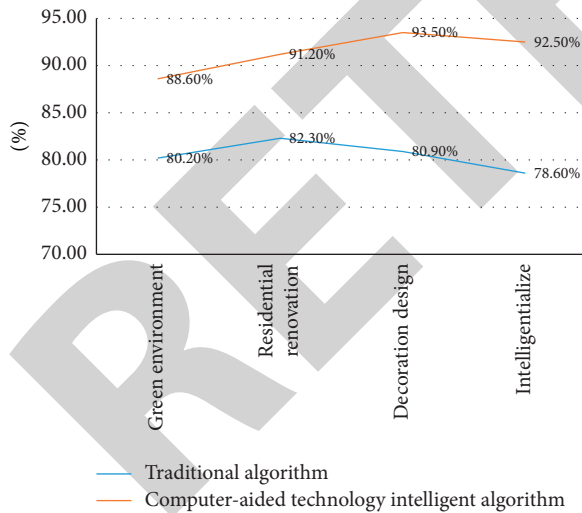


FIGURE 4: Visual comparison of the effect satisfaction of aging transformation with different algorithms.

comfortable communication venues for the elderly [11]. With the increasing integration of science and technology with services, extending the application scenario of intelligent technology to the elderly society and building an intelligent society “accessible to the elderly” is an important goal of promoting social “intelligent” and rational aging in the digital age [12].

6. Conclusion

Rural revitalization is an important core of China’s rural construction and development. Improving the aging construction can not only improve the living standards of the elderly, promote rural economic development, and build a beautiful countryside, but also reduce the worries of young people abroad about the living security of the elderly, improve their production and consumption capacity, promote the coordinated development of urban and rural areas, and realize rural revitalization. The realization of an age appropriate living environment in China’s rural construction is not only in line with the young people’s concept of life but also provides more convenience for the life of the elderly, and enhances exchanges and interactions between the elderly and young people. Based on the analysis of the current situation of aging in China and the accuracy of the application of the two algorithms, this paper compares the research results of the two algorithms before and after the aging transformation in China, compares the effects of aging transformation in different algorithms and the people’s satisfaction, compares the coupling degree of aging transformation under different algorithms, and reveals the correlation between the two algorithms and their applicability to aging. The design scheme adopts computer-aided technology and the intelligent algorithm, which can significantly improve the comprehensive effect of aging transformation. The coupling degree of aging transformation under

computer-aided intelligence is better, and the living environment and living standard of the rural elderly are better improved.

Data Availability

The data are available from the corresponding author upon request.

Conflicts of Interest

The authors declare that there are no conflicts of interest.

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