Hindawi
Mobile Information Systems
Volume 2023, Article ID 9815074, 1 page
https://doi.org/10.1155/2023/9815074

Retraction

Retracted: Internet Entrepreneurship Information Resource Sharing System Based on Improved Deep Learning Algorithm

Mobile Information Systems

Received 26 September 2023; Accepted 26 September 2023; Published 27 September 2023

This article has been retracted by Hindawi following an investigation undertaken by the publisher [1].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] X. Wang, "Internet Entrepreneurship Information Resource Sharing System Based on Improved Deep Learning Algorithm," *Mobile Information Systems*, vol. 2022, Article ID 6437225, 9 pages, 2022.

Hindawi
Mobile Information Systems
Volume 2022, Article ID 6437225, 9 pages
https://doi.org/10.1155/2022/6437225

Research Article

Internet Entrepreneurship Information Resource Sharing System Based on Improved Deep Learning Algorithm

Xiaohua Wang

Zhengzhou Railway Vocational & Technical College, Zhengzhou 451460, China

Correspondence should be addressed to Xiaohua Wang; 10802@zzrvtc.edu.cn

Received 12 April 2022; Accepted 14 May 2022; Published 10 June 2022

Academic Editor: Yajuan Tang

In order to promote the circulation of Internet entrepreneurial information, based on information theory and general security theory, this paper explains how to construct the attack channel and defense channel of the k-anonymity model, so as to provide a reliable network foundation for the transmission of related information. In order to fully solve the problems existing in multiuser requests, this paper proposes two modules, single-request sharing mode and multirequest sharing mode, to process query requests in the request queue to maximize the reuse of request results. Moreover, the model constructed in this paper needs to be processed through deep learning first and then shared through the intelligent model. Therefore, the data learning and data sharing of the model are mainly analyzed during model validation. The experimental simulation results show that the intelligent sharing model of Internet entrepreneurial information resources based on deep learning proposed in this paper has good data learning and data transmission effects.

1. Introduction

The growth of startups is divided into seed period, startup period, growth period, and maturity period, with the characteristics of large investment and high risk. Venture capital and incubators have the advantages of capital and experience, which can effectively promote the development of entrepreneurial enterprises. Venture capital is a kind of equity capital invested by professional investors into startups. It has five functions: fund intermediary guidance, certification, supervision and management, agency cost reduction, technological innovation, and productivity improvement [1]. Venture capital mainly provides funds and assistance on the basis of risk-taking, cultivates the company's rapid development, withdraws from the investment after success to achieve high capital gains, and then conducts a new round of investment. Venture capital is mainly invested in capital in the investment process, and its cost is mainly the opportunity cost of capital, and the income is mainly capital gains. The concept of incubator started in the United States and is a widely used tool for cultivating small and medium-sized enterprises. Moreover, it mainly provides services and support for startups and charges certain management fees. Startup companies develop in incubators, which provide startup companies with an entrepreneurial platform, rich management experience, and service support. At the same time, venture capital solves the capital problem of entrepreneurship by investing capital to obtain equity in startups and cultivates startups to reduce risks through their own experience. In addition, incubators and venture capital can greatly improve the success rate of startups [2].

Since the cost of information sharing is relatively dependent on the degree of effort invested, the cost of information provision is a threshold for whether information sharing can be carried out. Once the information sharing requirements are met, the cost of information provision will not affect the level of information sharing. The information accuracy multiplier is similar to the concept of information sharing efficiency. Increasing the information accuracy multiplier can increase the benefits of information sharing with the same degree of effort and also improves the level of information sharing [3].

With the current limited investment in science and technology and the shortage of science and technology resources, the sharing of science and technology resources is an increasingly important way to optimize the allocation of science and technology resources. Scientific and technological resources include scientific research equipment, scientific and technological talents, scientific and technological literature, research and development bases, and scientific and technological achievements. These resources have the characteristics of scattered distribution, diverse structures, high acquisition costs, and high repetition rates. Most of the scientific and technological resources are exclusively owned by the region or unit. This has caused confusion in scientific and technological resources, unclear management, and difficult integration. It has directly led to the imbalance in the development of science and technology in China: first, the development of many regions in China is not supported by theoretical guidance and advanced science and technology, which leads to economic and scientific development. The second is that due to the lack of a unified management system, the waste of scientific and technological resources is becoming more and more serious in our country, and there is no scientific and technological resource sharing platform that can effectively realize resource adjustment; third, from a global perspective, China's scientific and technological innovation efficiency is low, which makes the few scientific and technological resources unable to be used efficiently. In the current situation of limited investment in science and technology and scarce resources, the sharing of science and technology resources is an increasingly important way to optimize the allocation of science and technology resources.

2. Related Work

The literature [4] pointed out that the agglomeration of talents who have reached a certain scale, together with the material wealth and spiritual civilization they created, gradually form a magnetic field and special zone with a special attraction to talents, which attract more talents to come here, thus forming a highland for professionals. The huge vitality and competitive advantage of industrial clusters not only attract entrepreneurial talents and give birth to entrepreneurial talents but also provide excellent conditions and environment for the growth of entrepreneurial talents. The human resources in industrial clusters show better personal growth than nonindustrial clusters, so they have the conditions to spawn and incubate entrepreneurial talents [5]. The accumulation of entrepreneurial talents has also had a very positive impact on regional economic development. Many research documents point out that the contribution of a country's "entrepreneurial talents" to economic prosperity is very huge. The literature [6] regarded entrepreneurial talents as the carrier of innovation and therefore believes that entrepreneurial talents are the real driving force for economic growth. The innovative behavior of entrepreneurial talents promotes economic development. They integrate human, financial, material, and other elements at an appropriate time to form new production methods to obtain benefits, thereby promoting social and economic development. Entrepreneurial talents acquire knowledge in the cluster through learning, transform the knowledge competitiveness of the cluster into capital competitiveness, and realize the long-term economic progress and technological upgrading of the cluster through knowledge capitalization, thereby promoting the development of industrial clusters [7]. However, under the trend of economic globalization and increasingly fierce market competition, the development of industrial clusters has shown a vigorous development on the one hand and has exposed some shortcomings and development problems on the other. Among them, the problem of talents has gradually become a bottleneck for the sustainable and healthy development of clusters. The deepening development of industrial clusters puts forward new requirements for the talents in the cluster, especially the quality, ability, and knowledge structure of entrepreneurial talents. In order to adapt to the new requirements, entrepreneurial talents must improve their personal abilities and qualities through learning and achieve personal growth. Therefore, it is of great significance to study the problem of entrepreneurial talent learning under the background of industrial clusters.

Literature [8] puts forward the view that "there are no obstacles preventing analysis based on the resource view and its theories at the regional level," and literature [9] clearly puts forward the concept of shared resources. He pointed out that industrial cluster shared resources refer to those resources that can be shared by industrial cluster enterprises, including assets, capabilities, and related competences. Literature [10] further pointed out that cluster shared resources are intangible resources and capabilities shared by enterprises in the cluster. They are neither owned or monopolized by a single enterprise in the cluster, nor excluded from being shared by all enterprises in the cluster. This kind of resource is not available to enterprises outside the cluster. Literature [11] conducted a more in-depth study on the shared resources of industrial clusters. He proposed that cluster shared resources are "the types of resources that exist between collective enterprises in a certain industrial cluster, and that are unique to the entire cluster that can be shared by all individuals in the cluster without being monopolized by any single individual in the cluster." The definition is based on the identification criteria of strategic resources based on the view of resources-valuable, scarce, difficult to imitate, and difficult to replace. On this basis, Geng Shuai analyzed the relevance of shared resources and the competitive advantages of cluster enterprises. The research results show that shared resources do have a greater impact on the acquisition of competitive advantages of cluster enterprises.

Literature [12] regards entrepreneurial learning as the process of updating the individual's subjective knowledge base accumulated from past experience. In entrepreneurial learning, entrepreneurial talents update decision-making models and improve performance. Literature [13] proposes that entrepreneurial learning is a continuous process, which promotes the development of knowledge, and this knowledge is very important for the effective creation and management of new enterprises. Literature [14] believes that entrepreneurial learning is a process of using existing knowledge to obtain and transform information to create new knowledge. It is personally rooted in experience. Social learning and social construction perspective: this perspective believes that learning is an emergent meaning construction process composed of three links: knowing, practicing, and understanding. Literature [15] believes that entrepreneurial learning is learning how to work in an entrepreneurial way. It not only comes from introspection and experience but also a future-oriented thinking process that creates expected reality. The entrepreneurial learning model in literature [16] consists of three themes. The first theme is the change of personal and social identity, which refers to the generation of entrepreneurial identity; the second theme is contextual learning, which mainly refers to entrepreneurial talents embedded in communities, industries, and personal relationship networks to generate intuition for identifying opportunities from relationships and contextual experiences and ability; the third theme of coconstructing a company means that the company is not created by the entrepreneur but is constructed through interaction with relevant personnel inside and outside the company. Some scholars also conduct research on entrepreneurial learning from other perspectives. Literature [17] describes entrepreneurial learning as a learning process in entrepreneurial action from a behavioral perspective; that is, the entire process from the initial business intuition of entrepreneurial talents to the development of mature products or new services. Literature [18], in the process of studying entrepreneurial learning from the perspective of dynamic learning, defines entrepreneurial learning as the learning that entrepreneurial talents experience during the creation and development of small businesses.

3. Information Resource Sharing Model Based on Deep Learning

Since the twenty-first century, with the rapid development of the Internet and mobile devices, it has become easier for companies to collect and share personal information, which makes the social and Internet personal information develop towards the mutually beneficial sharing of information resources. For the purposes of facilitating scientific research, promoting consumption, decision-making, and deployment, various scientific research institutions and corporate organizations usually publish or share their personal information resources, including home address, work status, consumption records, and medical information. The release and sharing of such information can easily lead to the disclosure of personal information. Therefore, before publishing or sharing personal information, personal information owners need to deidentify personal information. At present, k-anonymity technology is one of the main methods to reduce personal information leakage during the process of publishing and sharing personal information data sheets.

This section explains how to construct the attack channel and defensive channel of the k-anonymity model based on information theory and general security theory, as well as the calculation method of the attacker and defender's ability limit.

For the deidentification k-anonymity model, if the attacker thinks that the attack was successful, it is recorded as $X=1$. If the attacker thinks that the attack has failed, it is recorded as $X=0$. When the defender thinks that the defense is successful, it is recorded as $Y=1$. If the defender thinks that the defense has failed, it is recorded as $Y=0$. Then, there will be the following four situations [19]:

(1) When the attacker thinks that the attack is successful, and the defender thinks that the defense is successful, it is recorded as $X=1,\ y=1$

(2) When the attacker thinks that the attack is successful and the defender thinks that the defense fails, it is recorded as $X=1,\ Y=0$

(3) When the attacker thinks that the attack fails, and the defender thinks the defense is successful, it is recorded as $X=0,\ Y=1$

(4) When the attacker thinks that the attack has failed, and the defender thinks that the defense fails, it is recorded as $X=0,\ Y=0$

After the offense and defense of the attacker and the defender are over, and the results of the offense and defense of both parties are recorded, the probability of success or failure is as follows [20].

The probabilities of attacker X's success and failure are $0<P_s(X=1)=1/k_1<1$ and $0<P_s(Y=1)=1-1/k_2<1$, respectively

The probability of defender Y's defense success and failure are $0<P_s(Y=1)=1-1/k_2<1$ and $0<P_s(Y=0)=1/k_2<1$, respectively

(1) The probability that the attacker thinks the attack is successful and the defender thinks the defense is successful is $0<P_s(X=1,Y=1)=(1-1/k_1)(1-1/k_2)<1$

(2) The probability that the attacker thinks the attack is successful and the defender thinks the defense failed is $0<P_s(X=1,Y=0)=1/k_1k_2<1$

(3) The probability that the attacker thinks the attack fails and the defender thinks the defense is successful is $0<P_s(X=0,Y=0)=(1-1/k_1)(1-1/k_2)<1$

(4) The probability that the attacker thinks the attack failed and the defender thinks the defense failed is $0<P_s(X=0,Y=0)=1/k_2(1-1/k_1)<1$

According to the random variables X and Y, if $Z=(X+Y) \bmod 2$, the probability distribution of Z is

$$
\begin{aligned}
&P_S(Z=0)\\
&=P_S(X=Y)\\
&=P_S(X=0,Y=0)+P_S(X=1,Y=1)\\
&=\frac{1}{k_2}\left(1-\frac{1}{k_1}\right)+\left(1-\frac{1}{k_2}\right),\\
&P_S(Z=1)\\
&=P_S(X\neq Y)\\
&=P_S(X=0,Y=1)+P_S(X=1,Y=0)\\
&=\frac{1}{k_1k_2}+\left(1-\frac{1}{k_1}\right)\left(1-\frac{1}{k_2}\right).
\end{aligned}
\tag{1}
$$

A communication channel consists of two variables, namely, input variables and output variables. In this section, we will use X as the input variable and Z as the communication channel of the output variable, which is called the attack channel R. In the same way, we call the communication channel with Y as the input variable and Z as the output variable, which is called the defensive channel T [21].

According to the limit theory of the attacker's ability, as long as the channel capacity G of the attacking channel R is calculated, the attacking ability limit of the attacker can be determined. If an attack by the attacker is successful, then channel R will successfully transmit 1 bit to the receiving end, that is, event $\{Z = 0, X = 0\}$ occurs or event $\{Z = 1, X = 1\}$ occurs. For the communication system R, it is composed of random variables X and Z; that is, it takes X as input and Z as output. Its $2 * 2$ order transition probability matrix is $A = [A(x, z)] = [P_S(z|x)]$ $(x = 0 \text{ or } 1)$. Then, there is

$$\begin{aligned}
A(0,0) &= P_S(Z=0|X=0) = \frac{P_S(Z=0,X=0)}{P_S(X=0)} = \frac{P_S(Y=0,X=0)}{P_S(X=0)} = \frac{1}{k_2},\\
A(0,1) &= P_S(Z=1|X=0) = \frac{P_S(Z=1,X=0)}{P_S(X=0)} = \frac{P_S(Y=1,X=0)}{P_S(X=0)} = 1-\frac{1}{k_2},\\
A(1,0) &= P_S(Z=0|X=1) = \frac{P_S(Z=0,X=1)}{P_S(X=1)} = \frac{P_S(Y=1,X=1)}{P_S(X=1)} = 1-\frac{1}{k_2},\\
A(1,1) &= P_S(Z=1|X=1) = \frac{P_S(Z=1,X=1)}{P_S(X=1)} = \frac{P_S(Y=0,X=1)}{P_S(X=1)} = \frac{1}{k_2}.
\end{aligned} \tag{2}$$

Therefore, the transition matrix of the attack channel R formed by X and Z is

$$A = \begin{bmatrix} A(0,0) & A(0,1) \\ A(1,0) & A(1,1) \end{bmatrix} = \begin{bmatrix} \frac{1}{k_2} & 1-\frac{1}{k_2} \\ 1-\frac{1}{k_2} & \frac{1}{k_2} \end{bmatrix}. \tag{3}$$

The joint probability distribution of random variables (X, Z) is

$$\begin{aligned}
P_S(X=1,Z=1) &= P_S(X=1,Y=0) = \frac{1}{k_1k_2},\\
P_S(X=1,Z=0) &= P_S(X=1,Y=1) = \frac{1}{k_1}\left(1-\frac{1}{k_2}\right),\\
P_S(X=0,Z=0) &= P_S(X=0,Y=0) = \frac{1}{k_2}\left(1-\frac{1}{k_1}\right),\\
P_S(X=0,Z=1) &= P_S(X=0,Y=1) = \left(1-\frac{1}{k_1}\right)\left(1-\frac{1}{k_2}\right).
\end{aligned} \tag{4}$$

Therefore, the mutual information between random variables X and Z is

$$\begin{aligned}
I(X,Z) &= \sum_x\sum_z p(x,z)\log\frac{p(x,z)}{p(x)p(z)}\\
&= \frac{1}{k_2}\left(1-\frac{1}{k_1}\right)\log\frac{1}{k_2/k_1(1-(1/k_2))+(1-(1/k_1))}\\
&\quad+\left(1-\frac{1}{k_1}\right)\left(1-\frac{1}{k_2}\right)\log\frac{1-(1/k_2)}{(1/k_1k_2)+(1-(1/k_1))(1-(1/k_2))}\\
&\quad+\frac{1}{k_1}\left(1-\frac{1}{k_2}\right)\log\frac{1-(1/k_2)}{(1/k_1)(1-(1/k_1))+(1/k_1)(1-(1/k_2))}\\
&\quad+\frac{1}{k_1k_2}\log\frac{1-(1/k_2)}{k_2[(1/k_1k_2)+(1-(1/k_1))(1-(1/k_2))]}.
\end{aligned} \tag{5}$$

According to the defensive ability limit theorem, only the channel capacity F of the defensive channel T is required to determine the defensive ability limit of the defender. If the defender succeeds in a certain defense, then channel T will successfully transmit 1 bit to the receiving end, that is, event $\{Z = 0, Y = 0\}$ occurs or event $\{Z = 1, Y = 1\}$ occurs. For the communication system T, it is composed of random variables Y and Z; that is, it takes Y as input and Z as output. Its $2 * 2$ order transition probability matrix is: $B = [B(y, z)] = [P_S(z|y)]$ $(y = 0 \text{ or } 1)$. Then, there is [22]

$$\begin{aligned}
B(0,0) &= P_S(Z=0|Y=0) = \frac{P_S(Z=0,Y=0)}{P_S(Y=0)} = \frac{P_S(X=0,Y=0)}{P_S(Y=0)} = 1-\frac{1}{k_1},\\
B(0,1) &= P_S(Z=1|Y=0) = \frac{P_S(Z=1,Y=0)}{P_S(Y=0)} = \frac{P_S(X=1,Y=0)}{P_S(Y=0)} = \frac{1}{k_1},\\
B(1,0) &= P_S(Z=0|Y=1) = \frac{P_S(Z=0,Y=1)}{P_S(Y=1)} = \frac{P_S(X=1,Y=1)}{P_S(Y=1)} = \frac{1}{k_1},\\
B(1,1) &= P_S(Z=1|Y=1) = \frac{P_S(Z=1,Y=1)}{P_S(Y=1)} = \frac{P_S(X=0,Y=1)}{P_S(Y=1)} = 1-\frac{1}{k_1}.
\end{aligned} \tag{6}$$

Therefore, the transfer matrix of the communication system T formed by Y and Z is

$$B = \begin{bmatrix} B(0,0) & B(0,1) \\ B(1,0) & B(1,1) \end{bmatrix} = \begin{bmatrix} 1-\frac{1}{k_1} & \frac{1}{k_1} \\ \frac{1}{k_1} & 1-\frac{1}{k_1} \end{bmatrix}. \tag{7}$$

Since the joint probability distribution of random variables (Y, Z) is

$$\begin{aligned}
P_S(Y=O,Z=1) &= P_S(X=1,Y=0) = \frac{1}{k_1k_2},\\
P_S(Y=1,Z=0) &= P_S(X=1,Y=1) = \frac{1}{k_1}\left(1-\frac{1}{k_2}\right),\\
P_S(Y=0,Z=0) &= P_S(X=0,Y=0) = \frac{1}{k_2}\left(1-\frac{1}{k_1}\right),\\
P_S(Y=1,Z=1) &= P_S(X=0,Y=1) = \left(1-\frac{1}{k_1}\right)\left(1-\frac{1}{k_2}\right).
\end{aligned} \tag{8}$$

The mutual information between random variables Y and Z is

$$\begin{aligned} I(Y,Z) &= \sum_{x}\sum_{z} p(y,z)\log\frac{p(y,z)}{p(y)p(z)} \\ &= \frac{1}{k_2}\left(1-\frac{1}{k_1}\right)\log\frac{1}{k_2/k_1\left(1-(1/k_2)\right)+\left(1-(1/k_1)\right)} \\ &\quad+\left(1-\frac{1}{k_1}\right)\left(1-\frac{1}{k_2}\right)\log\frac{1-(1/k_2)}{(1/k_1k_2)+\left(1-(1/k_1)\right)\left(1-(1/k_2)\right)} \\ &\quad+\frac{1}{k_1}\left(1-\frac{1}{k_2}\right)\log\frac{1-(1/k_2)}{(1/k_2)\left(1-(1/k_1)\right)+(1/k_1)\left(1-(1/k_2)\right)} \\ &\quad+\frac{1}{k_1k_2}\log\frac{1-(1/k_2)}{k_2\left[(1/k_1k_2)+\left(1-(1/k_1)\right)\left(1-(1/k_2)\right)\right]}. \end{aligned} \tag{9}$$

The channel capacity G of the attack channel R with X as input and Z as output is equal to $I_{\max}(X,Z)$, and the average mutual information change curve of the attack channel is shown in Figure 1; the channel capacity F of the defense channel T with Y as input and Z as output is equal to $I_{\max}(Y,Z)$, and the average mutual information change curve of the defense channel is shown in Figure 2.

According to Figure 1 and the limit theorem of the attacker's ability, we find that the channel capacity G of the attack channel R is determined by the value of k_2. It increases with the decrease of $k_2$and reaches the maximum at $k_2 = 2$ and $k_1 \longrightarrow \infty$. According to Figure 2 and the limit theorem of the defender's ability, we find that the channel capacity F of the defending channel T is determined by the value of k_1. It increases with the decrease of $k_1$and reaches the maximum at $k_1 = 2$ and $k_2 \longrightarrow \infty$.

From the above-given analysis, comparing the abilities of the attacker and the defender is to compare the change curve of the channel capacity G at $k_1 \longrightarrow \infty$ and the channel capacity F at $k_2 \longrightarrow \infty$, as shown in Figure 3 where k is equal to k_2 that in Figure 1 and equal to k_1 that in Figure 2. It can be seen from the figure that when $k = 8$, the offensive ability and the defensive ability are equal. When $k < 8$, the offensive ability is greater than the defensive ability. When $k > 8$, the offensive ability is lower than the defensive ability. Therefore, for the k-anonymous model, the value of k is preferably greater than 8.

4. Intelligent Sharing Model of Internet Entrepreneurship Information Resources Based on Deep Learning

In order to fully solve the problems in multiuser requests, this paper proposes two modules for querying, the single-request sharing mode and the multirequest sharing mode (Figure 4), to process the query requests in the request queue to maximize the multiplexing of the request results. Multirequest sharing mode completes three aspects of work. First, it checks whether it contains overlapping query intervals for multiple requests coming at the same time. If it contains, the algorithm will tailor the request, reuse the overlapping part of the request result, and complete the

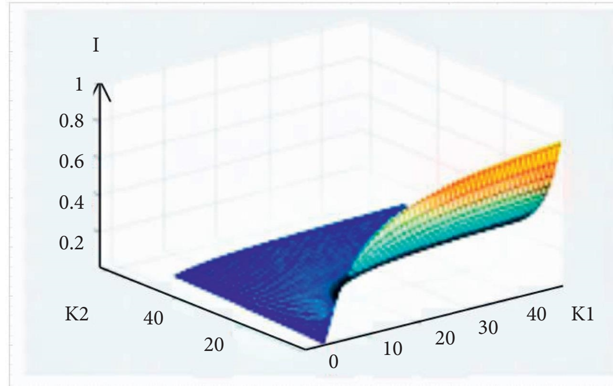

Figure 1: The average mutual information change curve of the attack channel.

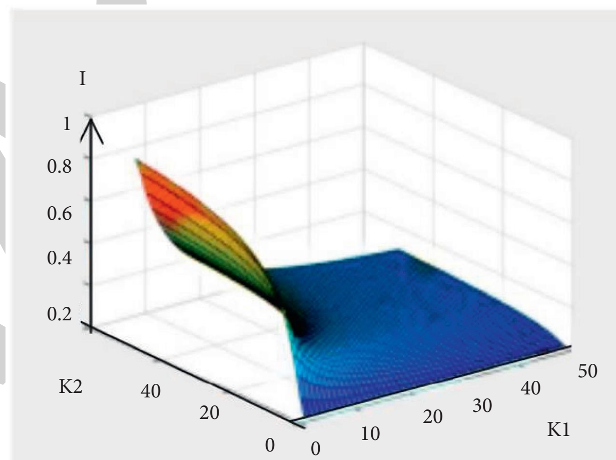

Figure 2: The average mutual information change curve of the defensive channel.

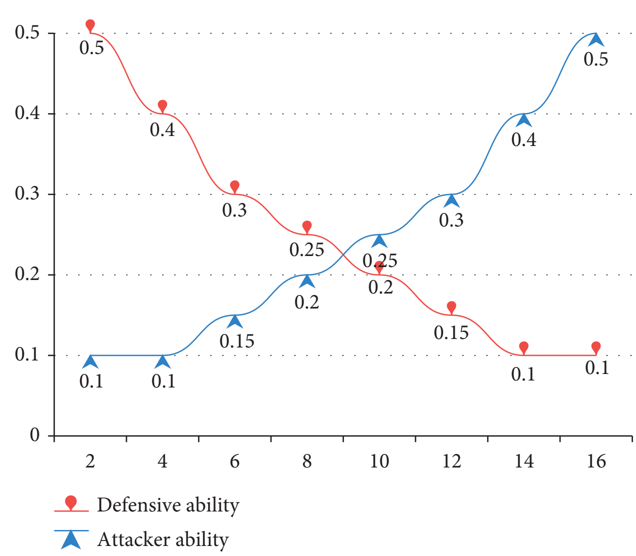

Figure 3: Ability curve of attacker and defender.

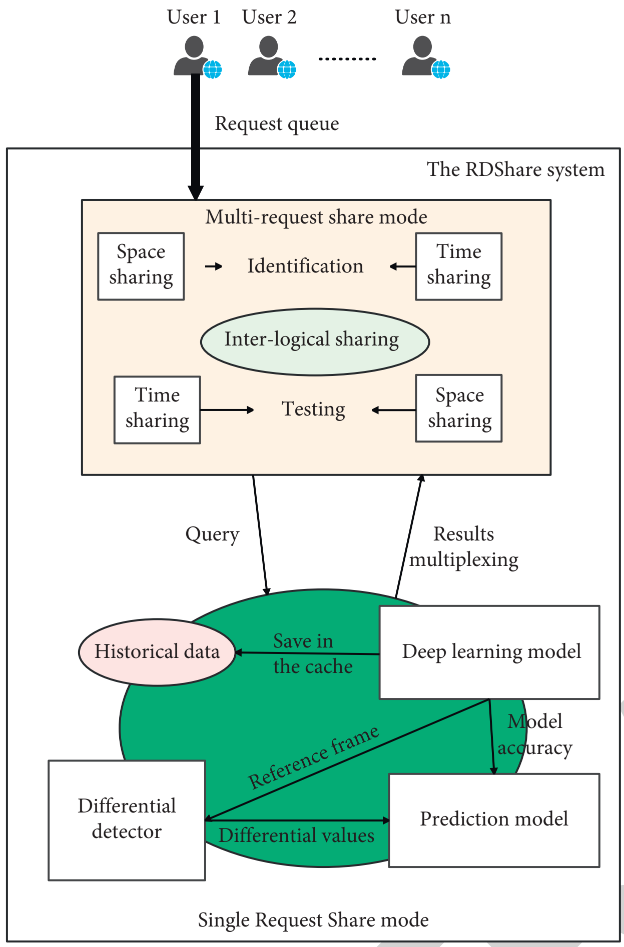

Figure 4: Schematic diagram of multiuser shared entrepreneurial information flow processing system.

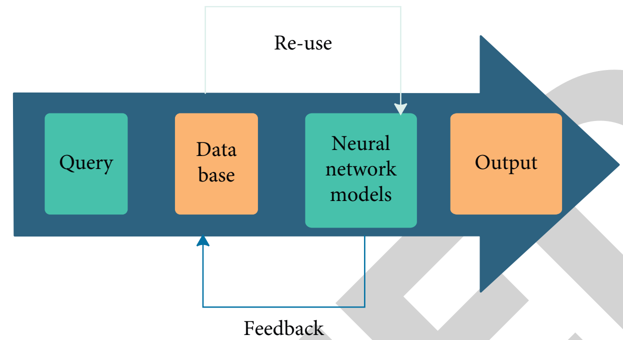

Figure 5: Schematic diagram of sharing in time.

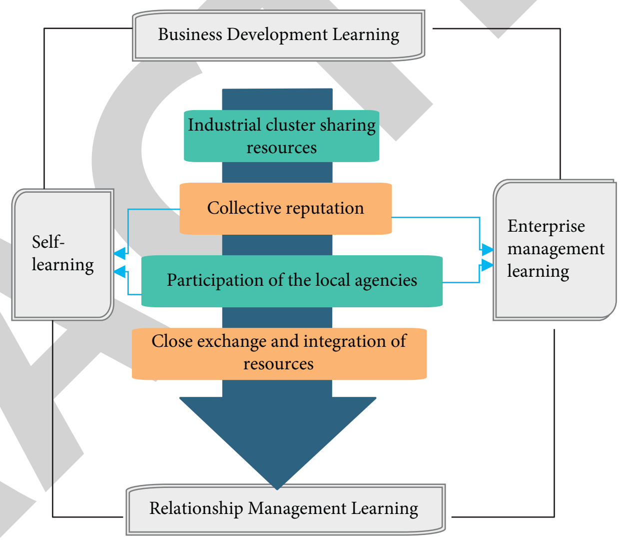

Figure 6: The learning influence relationship model of entrepreneurial talents.

spatial sharing. Then, for requests that have a sequential order in time, it is checked whether all or part of the request results already exists in the historical database. If it exists, the algorithm directly reuses the data in the historical database. If it does not exist, the algorithm calls the deep learning model for processing and completes the time sharing. Finally, for the request to call different types of deep learning models, it is checked whether there is a reusable part in the request content. For example, the result of identifying people in target recognition can be directly reused in the target detection model to complete the reuse between logics.

Time sharing is for multiple requests in a sequential order. When there is an overlap between the latter request and the previous request in the request interval, part of the data of the previous request can be reused to reduce the time to run the deep learning model and increase the running speed. For the data of the previous request, RD Share uses a historical database to store the intermediate results, and for the processed data, the request result is fed back to the historical database. When a new request comes, it will first search in the database. If there is data to be reused, the data will be reused directly, and if there is no data to be reused, then the deep learning model will be used for detection. After obtaining the intermediate results from the deep learning model or historical database, they are processed according to the specific requirements of the request, and then the results are output. The process is shown in Figure 5.

This paper uses the data obtained from field investigation and the research tools of the structural equation model to verify and revise the theoretical model. Moreover, this article reveals the impact of shared resources on entrepreneurial talent learning and finally establishes a model of the impact of cluster shared resources on entrepreneurial talent learning, as shown in Figure 6.

Regarding the main body of the entrepreneurial ecosystem, this article believes that it mainly includes entrepreneurial companies, intermediaries, financial institutions, research universities, affiliated companies, and governments, as shown in Figure 7. Intermediary agencies include talent technology markets and business incubators, which mainly provide services for startups to obtain funds, talents, technology, and markets. Financial institutions include banks and venture capital, which provide funds for startups, and research universities are knowledge and technology centers. Affiliated companies are companies that have upstream and downstream cooperative relations with startups and affect the market environment of startups. The government inputs

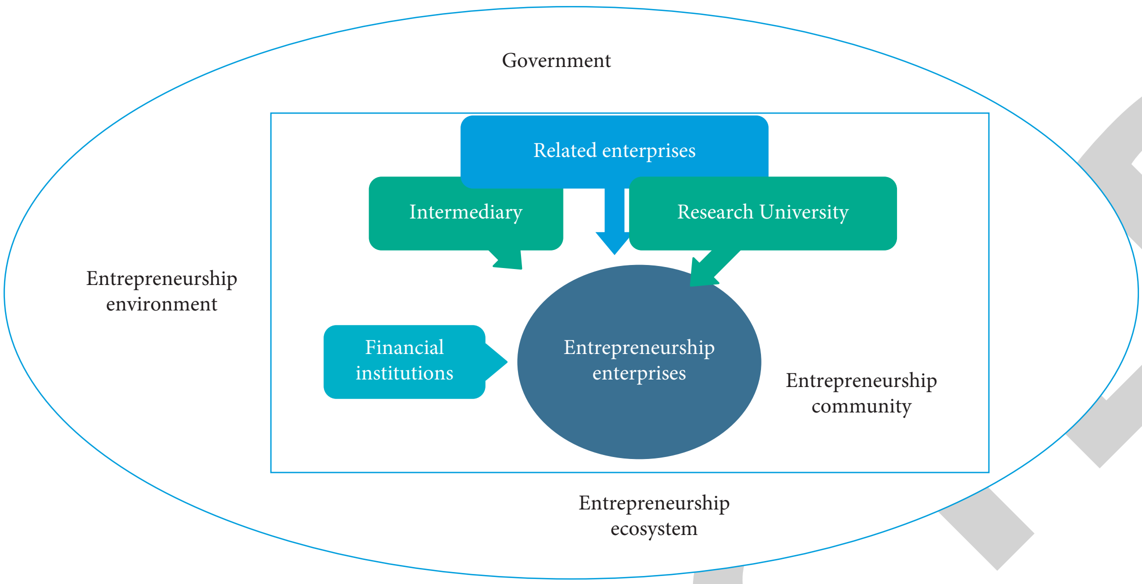

Figure 7: Entrepreneurship ecosystem.

Table 1: Resource sharing effect.

Number	Data sharing
1	83.83
2	83.06
3	84.52
4	87.52
5	83.85
6	88.86
7	87.31
8	88.11
9	87.08
10	85.35
11	89.09
12	87.92
13	84.34
14	86.43
15	83.78
16	89.49
17	86.90
18	87.98
19	89.28
20	87.12
21	83.56
22	82.77
23	82.90
24	84.78
25	87.56
26	83.31
27	89.01
28	88.91
29	88.08
30	87.29
31	85.46
32	84.95
33	83.51
34	87.01
35	88.65
36	83.56
37	86.94
38	86.05

Table 2: Data learning effect.

Number	Data learning
1	91.43
2	89.98
3	92.24
4	93.38
5	91.84
6	92.95
7	93.57
8	90.10
9	91.33
10	92.33
11	89.50
12	90.80
13	91.72
14	91.78
15	89.73
16	93.23
17	93.17
18	92.48
19	92.27
20	93.60
21	89.28
22	92.15
23	89.70
24	89.24
25	89.49
26	91.08
27	89.15
28	91.55
29	90.37
30	91.78
31	93.61
32	91.55
33	92.72
34	91.22
35	92.93
36	91.86
37	91.44
38	92.37

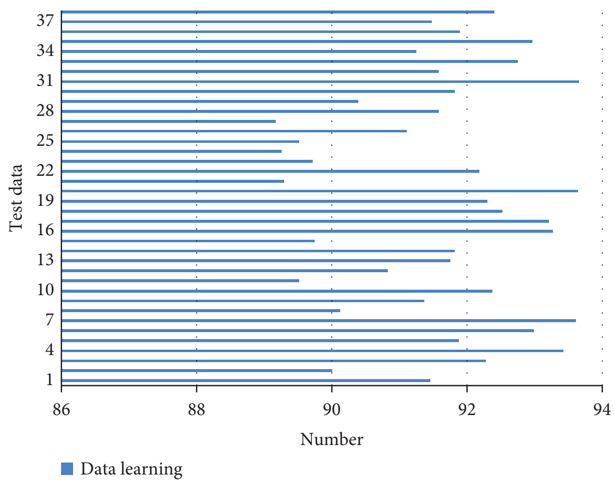

Figure 8: Statistics of data learning effect.

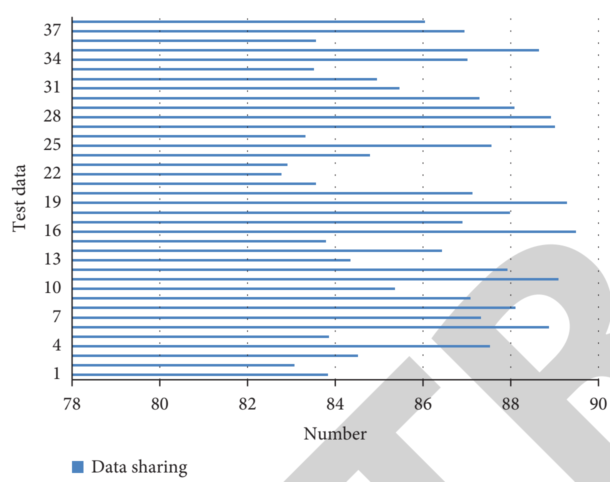

Figure 9: Statistical chart of resource sharing effect.

policy and other variables into the entrepreneurial community and influences the behavior of other entities in the system through tax subsidies and other means.

The two applications are data center applications and shared portal applications. The two applications implement remote method calls through the high-speed service framework, so that applications can be completely decoupled and facilitate development. The three-layer structure is as follows: 1. database layer: it uses the Mybatis framework to realize data connection and related operations on data Table 1. SERVICE layer: this layer is mainly responsible for the realization of all business logic of the two major applications. For shared portals, in addition to the function of reading resource data, it also integrates SolrAPI to implement resource indexing. For the data center, this layer mainly generates the KETTLE file from the user's data collection configuration, which is then scheduled for cluster execution 3. Interface layer: it is responsible for sharing the page display and user interaction of the two major systems of the portal and the data center. The overall functional structure of the system and the results shown in Table 2; Table 2 and Figure 8, Figure 9 are obtained.

From the above research, it can be seen that the intelligent sharing model of Internet entrepreneurial information resources based on deep learning proposed in this article has good data learning and data transmission effects.

5. Conclusion

This paper designs and realizes the intelligent sharing platform system of Internet entrepreneurial information resources, utilizes the advantages of the development of the Internet to greatly improve the status quo of the intelligent sharing platform system of Internet entrepreneurial information resources, and makes the sharing method simpler and more efficient. For the intelligent sharing of Internet entrepreneurial information resources, the problem of data integration is solved, and the data catalog and data collection functions of the data center are realized. It is convenient for users to standardize and integrate data from multiple databases according to their needs. The intelligent sharing platform system of Internet entrepreneurial information resources presents resources to front-end users, provides powerful resource search functions, improves resource retrieval and utilization efficiency, and users can well meet their resource sharing needs on this platform. Through experimental research, it can be seen that the intelligent sharing model of Internet entrepreneurial information resources based on deep learning proposed in this paper has good data learning and data transmission effects.

Data Availability

The labeled dataset used to support the findings of this study is available from the author upon request.

Conflicts of Interest

The author declares that there are no conflicts of interest.

Acknowledgments

This work was supported by the Zhengzhou Railway Vocational and Technical College "Jingdong Digital Marketing Industry College" (Grant no. 2021CYXY013).

References

[1] S. Van de Walle, B. Steijn, and S. Jilke, "Extrinsic motivation, PSM and labour market characteristics: a multilevel model of public sector employment preference in 26 countries," *International Review of Administrative Sciences*, vol. 81, no. 4, pp. 833–855, 2015.

[2] P. Barbieri, R. Bozzon, S. Scherer, R. Grotti, and M. Lugo, "The rise of a Latin model?" *European Societies*, vol. 17, no. 4, pp. 423–446, 2015.

[3] U. Huws, N. H. Spencer, and D. S. Syrdal, "Online, on call: the spread of digitally organised just-in-time working and its implications for standard employment models," *New Technology, Work and Employment*, vol. 33, no. 2, pp. 113–129, 2018.

[4] J. F. Wen and D. V. Gordon, "An empirical model of tax convexity and self-employment," *The Review of Economics and Statistics*, vol. 96, no. 3, pp. 471–482, 2014.

[5] R. Nakase-Richardson, L. F. Stevens, and C. Dillahunt-Aspillaga, "Predictors of employment outcomes in veterans with traumatic brain injury: a VA traumatic brain injury model systems study," *The Journal of Head Trauma Rehabilitation*, vol. 32, no. 4, pp. 271–282, 2017.

[6] M. Bornay-Barrachina, A. López-Cabrales, and R. Valle-Cabrera, "How do employment relationships enhance firm innovation? The role of human and social capital," *International Journal of Human Resource Management*, vol. 28, no. 9, pp. 1363–1391, 2017.

[7] G. R. Bond and R. E. Drake, "Making the case for IPS supported employment," *Administration and Policy in Mental Health and Mental Health Services Research*, vol. 41, no. 1, pp. 69–73, 2014.

[8] D. Tavani and L. Zamparelli, "Endogenous technical change, employment and distribution in the Goodwin model of the growth cycle," *Studies in Nonlinear Dynamics & Econometrics*, vol. 19, no. 2, pp. 209–216, 2015.

[9] P. Frijters, D. W. Johnston, and M. A. Shields, "The effect of mental health on employment: evidence from Australian panel data," *Health Economics*, vol. 23, no. 9, pp. 1058–1071, 2014.

[10] F. Portella-Carbo, "Effects of international trade on domestic employment: an application of a global multiregional input–output supermultiplier model (1995–2011)," *Economic Systems Research*, vol. 28, no. 1, pp. 95–117, 2016.

[11] G. R. Bond, S. J. Kim, D. R. Becker et al., "A controlled trial of supported employment for people with severe mental illness and justice involvement," *Psychiatric Services*, vol. 66, no. 10, pp. 1027–1034, 2015.

[12] G. Topa, C. M. Alcover, J. A. Moriano, and M. Depolo, "Bridge employment quality and its impact on retirement adjustment: a structural equation model with share panel data," *Economic and Industrial Democracy*, vol. 35, no. 2, pp. 225–244, 2014.

[13] M. Shirmohammadi, M. Beigi, and J. Stewart, "Understanding skilled migrants' employment in the host country: a multidisciplinary review and a conceptual model," *International Journal of Human Resource Management*, vol. 30, no. 1, pp. 96–121, 2019.

[14] G. P. Clarkson, "Twenty-first century employment relationships: the case for an altruistic model," *Human Resource Management*, vol. 53, no. 2, pp. 253–269, 2014.

[15] C. Topsakal, "Policy on teacher employment model in Turkey: contracted teachers," *International Journal of Educational Methodology*, vol. 5, no. 4, pp. 671–682, 2019.

[16] L. Ottomanelli, S. Barnett, L. Goetz, and R. Toscano, "Vocational rehabilitation in spinal cord injury: what vocational service activities are associated with employment program outcome?" *Topics in Spinal Cord Injury Rehabilitation*, vol. 21, no. 1, pp. 31–39, 2015.

[17] C. C. Lo and T. C. Cheng, "Race, employment disadvantages, and heavy drinking: a multilevel model," *Journal of Psychoactive Drugs*, vol. 47, no. 3, pp. 221–229, 2015.

[18] E. E. Dean, K. M. Burke, K. A. Shogren, and M. L. Wehmeyer, "Promoting self-determination and integrated employment through the self-determined career development model," *Advances in Neurodevelopmental Disorders*, vol. 1, no. 2, pp. 55–62, 2017.

[19] C. Liu, Y. Tian, J. Xiong, Y. Lu, Q. Li, and C. Peng, "Towards attack and defense views to K-anonymous using information theory approach," *IEEE Access*, vol. 7, pp. 156025–156032, 2019.

[20] K. Y. Huang and Y. R. Chuang, "Aggregated model of ttf with utaut2 in an employment website context," *Journal of Data Science*, vol. 15, no. 2, pp. 187–201, 2021.

[21] E. J. Bartelsman, P. A. Gautier, and J. De Wind, "Employment protection, technology choice, and worker allocation," *International Economic Review*, vol. 57, no. 3, pp. 787–826, 2016.

[22] Y. Qing and W. Zejun, *Research On The Impact Of Entrepreneurship Policy On Employment Based On Improved Machine Learning Algorithms*, IOS Press, Amsterdam, Netherlands, 2021.