

Retraction

Retracted: Multiweight Cross-Multimedia Logistics Optimal Path Exploration by Integrating High-Dimensional Deep Learning

Advances in Multimedia

Received 15 August 2023; Accepted 15 August 2023; Published 16 August 2023

Copyright © 2023 Advances in Multimedia. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

This article has been retracted by Hindawi following an investigation undertaken by the publisher [1].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] H. Zhang, J. Guo, and G. Sun, "Multiweight Cross-Multimedia Logistics Optimal Path Exploration by Integrating High-Dimensional Deep Learning," *Advances in Multimedia*, vol. 2021, Article ID 1474341, 6 pages, 2021.

Research Article

Multiweight Cross-Multimedia Logistics Optimal Path Exploration by Integrating High-Dimensional Deep Learning

Huiying Zhang , Jinjin Guo , and Guie Sun 

Chongqing Vocational College of Transportation, Chongqing 402246, China

Correspondence should be addressed to Huiying Zhang; zhanghuiying@bjtu.edu.cn

Received 3 August 2021; Accepted 25 October 2021; Published 8 December 2021

Academic Editor: Zhendong Mu

Copyright © 2021 Huiying Zhang et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

High-dimensional deep learning has been applied in all walks of life at present, among which the most representative one is the logistics path optimization combining multimedia with high-dimensional deep learning. Using multimedia logistics to explore and operate the best path can make the whole logistics industry get innovation and leap forward. How to use high-dimensional deep learning to conduct visual logistics operation management is an opportunity and a problem facing the whole logistics industry at present. The application of high-dimensional deep learning technology can help logistics enterprises improve their management level, realize intelligent decision-making, and enable accurate prediction. Starting from the total amount of logistics, regional layout, enterprise scale, and high-dimensional deep learning algorithm, this paper analyzes the current situation of China's logistic development through multiweight analysis and explores the best path for multimedia logistics.

1. Introduction

The implementation of the concept of high-dimensional deep learning in logistics can elevate the transportation efficiency of logistics to a new level. At the same time, combining the concept of multimedia and the idea of multiweight, we can find out the best development path of logistics. With so many tools available, high-dimensional deep learning in China is in full swing. In 2013, China's logistics volume was 1,074667 million tons, and exports were 33.6826 million tons. Although China's development has entered a new stage, the overall competitiveness of Chinese goods is not very strong, and the gap with other countries is still wide. Therefore, it is very important to study the situation in China and come up with the opposite view [1].

2. Development Status and Multiweight Analysis of Logistics in China

2.1. Multiweight Analysis of Logistics in China. The throughput can reflect the efficiency of logistics transportation. For example, in 2013, China's goods shipments reached 10.747 billion tons, up to 92.94 percent year on year

and double that of 2006, ranking among the top in the world for nine consecutive years, an increase of 97.24 million TEUS or 103.88% over 2006. The detailed logistics throughput is shown in Table 1.

As we can see in Table 1, China's performance improved from 2006 to 2007, with goods growing by about 15% and shipments exceeding 20%. In 2008, global trade came under pressure because of the economic crisis. Its use is also effectively affected. Its size is shrinking, and its stock is growing slowly. However, the volume of these tanks has been significantly affected, showing negative growth in 2009 [2, 3]. To end the economic crisis, logistics in China has doubled. Figure 1 shows the continued growth of more than 10% in Chinese cargo and containers over the past few years.

Figure 1 shows that the inflow of goods and containers for Chinese freight actually shows steady growth, and the volume of containers is much larger than the import of goods [4].

2.2. Cross-Multimedia Logistics and Transportation. Based on Figure 1, we can see that although the flow of goods through the Yangtze River region is lower than that of the Bohai Ring region, the transit of all cargo sections is at the

TABLE 1: China's logistics throughput performance over the years.

Years	Cargo throughput (100 million tons)	Growth rate (%)	Container throughput (10000 TEU)	Growth rate (%)
2009	55.70	14.81	9654	23.80
2010	64.10	15.06	11482	21.79
2011	70.22	9.55	12800	12.78
2012	76.67	9.42	12400	5.48
2013	80.21	4.99	13650	7.96
2014	90.17	12.78	14896.78	14.58
2015	99.25	9.86	17861.72	8.06
2016	107.48	7.65	19027.27	18.78

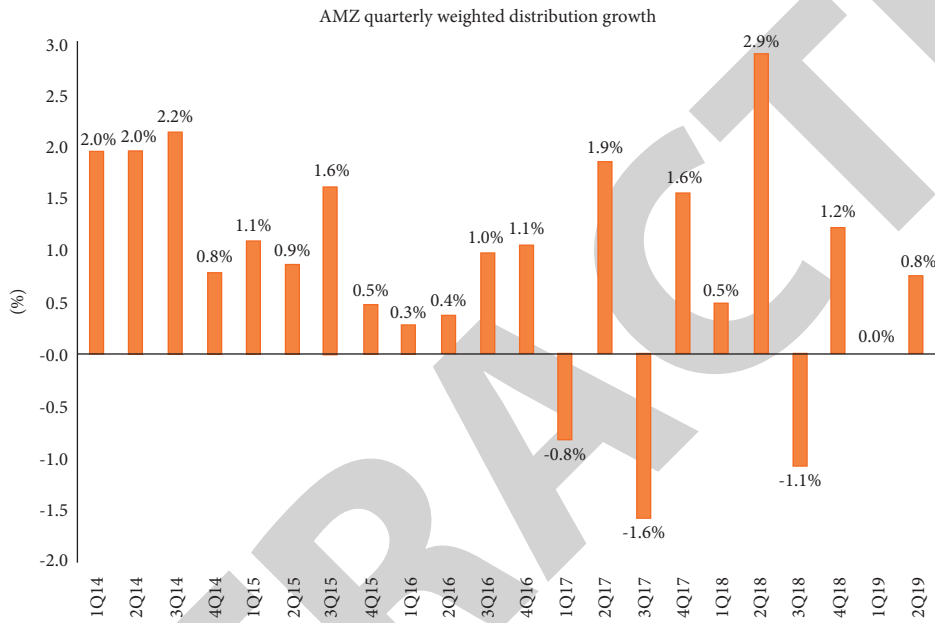


FIGURE 1: Throughput statistics of China's logistics over the years.

forefront. The cargo of the Ningbo-Zhoushan port is 809.78 million tons, being the first in China. Shanghai came in second with 776 million tons, behind Zhoushan port in Ningbo. As a rising star, Suzhou port has grown significantly in recent years. In 2013, shipments reached 454.3 million tons. The Bohai Ring Region experienced the fastest growth in terms of infrastructure, with Tangshan port being the first with an annual growth rate of 22%, almost double that of the second largest port, Rizhao port. The rapid growth in the Bohai Rim Region is reinforcing labor competition in the region, and the negative effects of competition are evident in the area around the Yangtze River Delta, which led to a decline in overall logistics interest in China [5, 6].

2.3. Analysis of High-Dimensional Deep Learning Algorithm for Logistics Integration in China. Meanwhile, China's business size is often small; most of them are in independent

groups, unable to overcome the economic crisis, and competition is not strong. There are several shipping companies and others to some degree, such as Logistics Consolidation, Haifeng International, Sinotrans Consolidation, Quanzhou Axe Shipping, Grand China Logistics, Hainan Pan-Ocean, Shanghai Jinjiang Shipping, and Shanghai Haihua Shipping. We will then be able to analyse and demonstrate participation by involving all groups involved in the water trade. In general, we use the following methods for calculations:

$$\alpha = \text{SXDD NSX} (1) \sum (Mni - 1) (1) \text{DD}. \quad (1)$$

As indicated above, suppose some communist-type water supply trades in China have water, a central market for wholesalers and sellers l problem solving and problem solving can be an easy analogy to have among a number of wholesalers.

$$\alpha W_{ii} = \text{SX} (\alpha + W + \alpha W \dots 1122 (2) + \alpha \text{WS}) \text{nnnX}. \quad (2)$$

where I ($1 \leq I \leq m$) represents the i th broker; J ($1 \leq J \leq n$) represents the J th sea area; and K ($1 \leq K \leq L$) represents the K th product.

Obviously, it can be seen that China's domestic business is one of the most advanced integrated enterprises in the world. Among them, the armed forces with 166 ships, containers with 760398 million TEU, and the higher education sector with 4.4%, are included in the top five companies in the world. It has 143 vessels and 602,477 TEU containers. The share of higher education is 3.5%, and it is the ninth largest in the world.

As we have seen in Figure 2, although navigation integration has improved over recent years, it is still far from the Maersk Line, which ranks first. Maersk Line's hauling and shipping capacity is three times that of its sales force, while the transportation sector and total number of vessels combined is less than 1/4 that of Maersk Line. As a result, Chinese weapons need to take bigger, more sophisticated, and more powerful means, to gain a place in the competitive market [7].

3. Optimal Path of Multiweight Logistics Integrating High-Dimensional Deep Learning

3.1. Multiweight Multimedia Path Analysis. Logistics is characterized by the integration of logistics process, specialization of logistics technology, informationization of logistics management, and socialization of logistics service, which is highlighted by the rapid development of third-party logistics and logistics centres. Because of its advantages in talent, technology, and information, professional logistics is easily influenced by logistics technology and management mode and achieves different economies of scale.

As we have seen in Figure 3, with the advancement of Internet technology, a combination of land and sea travel is expected to be achieved on the way to growth by sea and land. Low costs and in-depth study of well-designed methods play an important role in the growth of global trade, which is why most of our country's exports and exports are highly valued in terms of learning [8].

3.2. Classification of High-Dimensional Deep Learning Algorithms Combined with Multimedia. Depending on the different types of shipping operations, they can be divided into two categories: naval and transport. Depending on the region, it can be divided into domestic and foreign markets. This post is mainly about the past:

3.2.1. Analysis of High-Dimensional Deep Learning Algorithms. Waterborne vessels are used to transport containers, food, and other goods, which contain three main components:

First, the delivery date, how it is, the way and the price of delivery, and other goods are not fixed. Second, consignment includes cargo, which requires the ship to be responsible for hauling and unloading operations in the steering department. Third, the cargo owner can be booked according to the

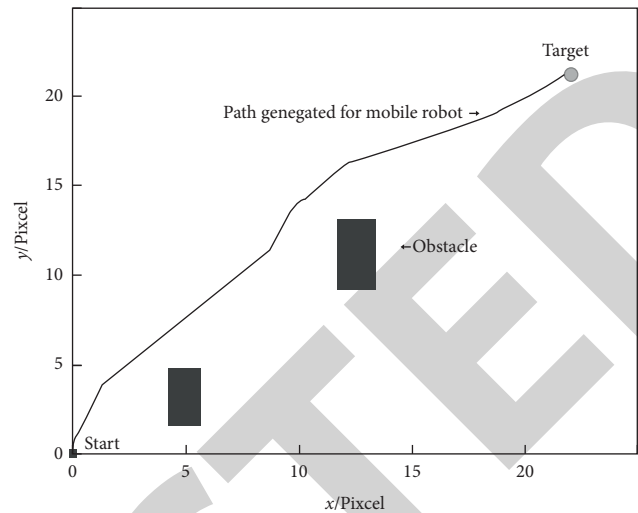


FIGURE 2: Comparative analysis of innovation and development of mainland logistics in China in recent years and before.

actual need, and the amount of transport goods is not particularly fixed.

3.2.2. Application of High-Dimensional Deep Learning Algorithms. Compared to the navy, the cost of ensuring the ship is low and can meet the requirements of choosing a route. As a result, they agreed that the ship would carry a lot of cargo. Conferences can be divided into longer duration and travel charters. Standard shipping rules consider the voyage to be the basis of the charter, and the vessel will complete cargo operations on the way and will supervise the operation of the vessel in accordance with the charter requirements [9]. It takes time as a basis for cargo ships. The ship provides the appropriate ship to the customer according to the time of the transaction signed in the contract. The client may be able to distribute the goods in a dignified manner according to the agreement, but fuel unloading equipment and other vessels are limited.

4. Existing Problems and Countermeasures in the Development of Multimedia Logistics Paths

4.1. Problems Existing in the Development of Multimedia Logistics Paths. With the growth of China's economy and global trade, demand is increasing, leading to growth in freight forwarding and laying the groundwork for China's weapon development. At the same time, with the help of government funds, work institutions such as mergers are slowly growing and becoming a catalyst for China's development. Although China's development has its advantages, there are still some issues that need to be addressed (Figure 4).

Logistics regional development is not balanced and mainly concentrated in the Yangtze River Delta region of Zhejiang, Shanghai, and the Bohai Rim region of Tianjin, Qingdao, and other logistics; other regions are weak

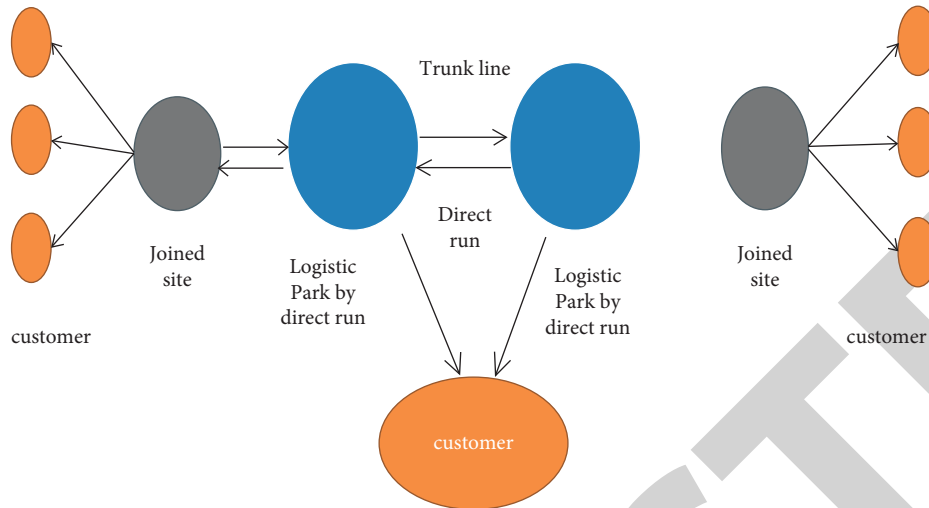


FIGURE 3: The best path for multimedia logistics.

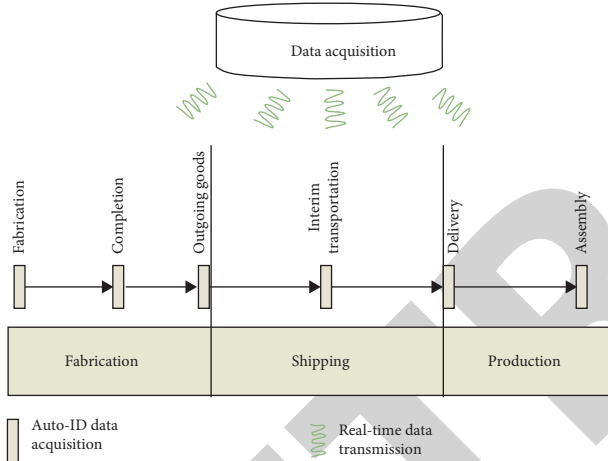


FIGURE 4: Optimal path problem for multimedia logistics.

development, especially the southwest coastal area development is extremely slow [10, 11].

Bad competition for household items is good. Currently, China's operations are mainly based on low-level activity, which attracts ships to ports to dock for cargo. Competition is fierce, especially among various things in the same area.

While China's overall business potential is high worldwide, it relies heavily on the support of state-owned enterprises and NGOs that play a minor role, which does not contribute to China's long-term development.

4.2. Countermeasures for the Development of Multimedia Logistics Paths. In order to promote China's security development, we need to increase China's resources and correct its shortcomings. The opposite method is as follows.

Merge resources and improve layouts. As a result of China's steady growth, competition between commodities is growing exponentially, leading to the loss of some of the world's smallest resources, hurting the economy. Combining weapons, any event can play its game and promote the development of the event.

Promise money, good management. In order to promote global competitiveness in China's trade, we need to increase the flow of commodity traffic and help businesses buy ships through capital and credit to increase enterprise mobility. At the same time, it is important to increase funding for science and technology and skills to promote greater control over China.

Support enterprises and improve their competitiveness. By formulating relevant industrial policies, implementing preferential conditions, perfecting market mechanism, supporting the development of enterprises, improving the management level of logistics enterprises, and enhancing the competitiveness of enterprises to participate in the international logistics market [12, 13].

5. How to Innovate and Develop Logistics Integrating High-Level Deep Learning?

5.1. Centrally Integrate Resources and Improve Logistics Layout. With the growth of the retail market, the volume of goods in China continues to grow, the right enterprises need to take action to improve their capacity, and the combination of equipment can ensure that each team plays in the best possible way and promote overall development [14].

On the other hand, the pressure to compete for a living is growing, which intensifies limited space and uses other resources. The combination of factors can ensure that all events provide their full potential and then promote overall development. The concept of in-depth learning can be applied to a variety of industries, which can be used to describe how things can work out. Integrated multimedia analytics can help increase the amount of content.

5.2. Establish a Fair and Just Market Environment. At present, our country does not have good laws, and government agencies need to put in place policies that will guide the process. Governments need to develop a comprehensive business plan, and governments need to streamline developmental areas, monitor spending, and prevent economic

growth. At the same time, the government should also provide scientific and reasonable advice on building solid foundations, strengthening existing construction projects and rehabilitating technical equipment on a temporary basis, in order to lay a solid foundation for development for manufacturing companies.

5.3. Strengthen Cooperation with Other Countries. Since China's entry into the World Trade Organization (WTO), Chinese manufacturing companies have been dominated by foreign companies, which is why working companies have to take cooperation and development. Chinese manufacturing companies should strive to create large-scale back-to-back businesses as a basis, by participation to achieve global operations, combined with other activities, at the same time strengthening partnerships with other major corporations. It is important to actively establish cooperative activities, create international corporate alliances, good global marketing, and operations, and recognize interdependent globalization. The government should urgently regulate a number of small and medium-sized enterprises with the temporary flexibility of large-scale development, open up domestic and foreign business markets, and provide funding and business foundations to enable them to grow jobs. In addition, some major shipping companies need to be more proactive, promoting the development of their diversity, expanding their opportunities across the field, and creating new lucrative sources [15].

5.4. Improve the Service System of the Logistics Industry. Manufacturing companies are experts in the field of support, adoption of skills, expertise, colour, and flexibility. As a result, support companies need to develop scientific knowledge and integration for the first time. In order to cope with the fierce competition in the global market, our retail companies need to promote employment and job security, strengthen exchanges and alliances with skilled departments, and study foreign market value, brand, performance, and expertise. Companies need to streamline financial accounting and cost management and do their best to reduce labor costs by ensuring that the work is efficient, developing state-of-the-art technology to improve traffic and increase online jobs.

6. Conclusion

The concept of in-depth learning can be used in a variety of industries and can also be used to interpret in practice. The combination of multimedia analysis has the potential to boost Chinese business globally. Manufacturing companies have also entered the phase of rapid development. In recent years, China's freight forwarding has been the world's first. Manufacturing companies in China now have growing instability in the region, excessive competition, and a lack of

corporate movement and other shortcomings, so the government should encourage businesses to follow through.

Data Availability

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

Conflicts of Interest

The authors declare no conflicts of interest.

References

- [1] S. M. Erfani, S. Rajasegarar, S. Karunasekera, and C. Leckie, "High-dimensional and large-scale anomaly detection using a linear one-class SVM with deep learning," *Pattern Recognition*, vol. 58, pp. 121–134, 2016.
- [2] U. F. Siddiqi, Y. Shiraishi, and S. M. Sait, "Multi-objective optimal path selection in electric vehicles," *Artificial Life and Robotics*, vol. 17, no. 1, pp. 113–122, 2012.
- [3] C. Chen and S. Dennis, "Fast exploration of an optimal path on the multidimensional free energy surface," *PLoS One*, vol. 12, no. 5, Article ID e0177740, 2017.
- [4] L. Zhang, Y. Zhang, and Y. Li, "Path planning for indoor mobile robot based on deep learning," *Optik-International Journal for Light and Electron Optics*, vol. 219, no. 10, Article ID 165096, 2020.
- [5] E. Prianto, J.-H. Park, J.-H. Bae, and J.-S. Kim, "Deep reinforcement learning-based path planning for multi-arm manipulators with periodically moving obstacles," *Applied Sciences*, vol. 11, no. 6, Article ID 2587, 2021.
- [6] P. Nandy, A. Hauser, and M. H. Maathuis, "High-dimensional consistency in score-based and hybrid structure learning," *The Annals of Statistics*, vol. 46, no. 6, 2016.
- [7] L. Yao, Q. Z. Sheng, X. Wang, W. E. Zhang, and Y. Qin, "Collaborative location recommendation by integrating multi-dimensional contextual information," *ACM Transactions on Internet Technology*, vol. 18, no. 3, pp. 1–24, 2018.
- [8] S. Kong, Z. Yu, X. Zhang, and G. Cheng, "High dimensional robust inference for cox regression models using de:parisified lasso," *Scandinavian Journal of Statistics*, vol. 48, no. 2, 2021.
- [9] L. Feng, X. Zhang, and B. Liu, "A high-dimensional spatial rank test for two-sample location problems," *Computational Statistics & Data Analysis*, vol. 144, no. 2, Article ID 106889, 2020.
- [10] F. Y. Hadaegh, B. Cetin, and M. Bikdash, "Hybrid mixed-logical linear programming algorithm for collision-free optimal path planning," *IET Control Theory & Applications*, vol. 1, no. 2, pp. 522–531, 2007.
- [11] S. Ann and H. S. Kim, "Relay association method for optimal path in IEEE 802.16j mobile multi-hop relay networks," *European Transactions on Telecommunications*, vol. 21, no. 7, pp. 624–631, 2010.
- [12] L. Xing and Y. Li, "Revised floyd-warshall algorithm to find optimal path in similarity-weight network and its application in the analysis of global value chain," *Journal of Physics: Conference Series*, vol. 1298, Article ID 012010, 2019.
- [13] L. Cui, S. Han, S. Qi, Y. Duan, Y. Kang, and Y. Luo, "Deep symmetric three-dimensional convolutional neural networks for identifying acute ischemic stroke via diffusion-weighted

- images,” *Journal of X-Ray Science and Technology*, vol. 29, no. 4, pp. 551–566, 2021.
- [14] S.-l. Sun, “Multi-sensor optimal information fusion Kalman filter with application,” *Aerospace Science and Technology*, vol. 8, no. 1, pp. 57–62, 2004.
- [15] F. Ahmed and K. Deb, “Multi-objective optimal path planning using elitist non-dominated sorting genetic algorithms,” *Soft Computing*, vol. 17, no. 7, pp. 1283–1299, 2013.

RETRACTED